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Rulemaking Hearing Rule(s) Filing Form

Rulemaking Hearing Rules are rules filed after and as a result of a rulemaking hearing. T.C.A. § 4-5-205

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Revision Type (check all that apply):

- Amendment
 New
 Repeal

Rule(s) Revised (ALL chapters and rules contained in filing must be listed here. If needed, copy and paste additional tables to accommodate multiple chapters. Please enter only ONE Rule Number/Rule Title per row)

Chapter Number	Chapter Title
0400-49-01	Rules Governing Water and Wastewater Operator Certification
Rule Number	Rule Title
0400-49-01-.01	Application for Certificate
0400-49-01-.02	Examinations
0400-49-01-.03	Fees
0400-49-01-.04	General
0400-49-01-.05	Definitions
0400-49-01-.06	Classifications of Water Treatment Plants and Water Distribution Systems
0400-49-01-.07	Classifications and Qualifications of Water Treatment Plant Operators and Water Distribution System Operators
0400-49-01-.08	Classification of Wastewater Treatment Plants and Wastewater Collection Systems
0400-49-01-.09	Classifications and Qualifications of Wastewater Treatment Plant Operators and Wastewater Collection System Operators
0400-49-01-.10	Continuing Education
0400-49-01-.11	Summary Suspension and Revocation of Certificate
0400-49-01-.12	Civil Penalties

Chapter Number	Chapter Title
1200-05-03	Rules Governing Water and Wastewater Operator Certification
Rule Number	Rule Title
1200-05-03-.01	Application for Certificate
1200-05-03-.02	Examinations

1200-05-03-.03	Fees
1200-05-03-.04	General
1200-05-03-.05	Definitions
1200-05-03-.06	Classifications of Water Treatment Plants and Water Distribution Systems
1200-05-03-.07	Classifications and Qualifications of Water Treatment Plant Operators and Water Distribution System Operators
1200-05-03-.08	Classification of Wastewater Treatment Plants and Wastewater Collection Systems
1200-05-03-.09	Classifications and Qualifications of Wastewater Treatment Plant Operators and Wastewater Collection System Operators
1200-05-03-.10	Continuing Education
1200-05-03-.11	Revocation of Certificate
1200-05-03-.12	Civil Penalties
1200-05-03-.13	Repealed

Chapter Number	Chapter Title
1200-05-06	Rules of Procedure for Hearing Contested Cases before the Water and Wastewater Operations Board of Certification

(Place substance of rules and other info here. Statutory authority must be given for each rule change. For information on formatting rules go to <http://state.tn.us/sos/rules/1360/1360.htm>)

Repeals

Chapter 1200-05-03 Rules Governing Water and Wastewater Operator Certification is repealed.

Authority: T.C.A. §§ 68-221-901 et seq. and 4-5-201 et seq.

Chapter 1200-05-06 Rules of Procedure for Hearing Contested Cases before the Water and Wastewater Operations Board of Certification is repealed.

Authority: T.C.A. § 68-221-901 et seq. and 4-5-201 et seq.

New Rules

Chapter 0400-49-01 Rules Governing Water and Wastewater Operator Certification

Table of Contents

0400-49-01-.01	Application for Certificate	0400-49-01-.08	Classification of Wastewater Treatment Plants and Wastewater Collection Systems
0400-49-01-.02	Examinations		
0400-49-01-.03	Fees		
0400-49-01-.04	General	0400-49-01-.09	Classifications and Qualifications of Wastewater Treatment Plant Operators and Wastewater Collection System Operators
0400-49-01-.05	Definitions		
0400-49-01-.06	Classifications of Water Treatment Plants and Water Distribution Systems		
0400-49-01-.07	Classifications and Qualifications of Water Treatment Plant Operators and Water Distribution System Operators	0400-49-01-.10	Continuing Education
		0400-49-01-.11	Summary Suspension and Revocation of Certificate
		0400-49-01-.12	Civil Penalties

0400-49-01-.01 Application for Certificate.

(1) Application for certification by examination.

(a) A separate application for each certification shall be made on an original form approved by the Board for that purpose and available upon request from the Secretary of the Board.

(b) An application for certification must be submitted to the Secretary of the Board and include the following items:

1. A sworn and notarized application signed by the applicant.
2. Payment of a non-refundable \$100 fee for each application for examination.
3. A copy of any verifying document in support of an application must be submitted with the application unless the applicant has previously provided such documentation to the Secretary of the Board. This includes, but is not limited to, proof of high school education or equivalent of the applicant. College transcripts, if needed to document experience credit, must be submitted directly from the college and/or university to the Secretary to the Board. Credit for enrollment in special training courses and programs will only be granted to an applicant upon verification that he/she satisfactorily completed all course or program requirements. If training credit is requested, a copy of a course attendance card, a class roster, or a certificate of completion must be submitted to the Secretary. Verification of work experience must be provided in a written document signed by a certified operator of a similar or higher classification, familiar with the applicant's work experience. However, if no such person is available, it may be documented by a person

in authority with the system. The Board may exempt applicants from the verification of work experience requirement where there are unusual circumstances.

- (c) A complete application must be received by the Secretary sixty (60) days or more in advance of the scheduled examination date for consideration. Applications received less than sixty (60) days prior to an examination date will be reviewed for the next examination. Upon written request by an applicant, the Board may choose to review, at the next Board meeting, a late exam application where extenuating circumstances contribute to the delay.
- (d) Applications will be reviewed for completeness and for compliance with the requirements of Rules 0400-49-01-.07 and 0400-49-01-.09 for education and experience by staff of the Board under the supervision of the Secretary. The operating experience of an applicant will be determined through the end of the month in which the examination for the operator classification desired is given.
 - 1. Applications which are not complete or which provide inadequate information to allow a reasonable judgment of experience and/or education shall either be returned to the applicant by the Secretary for amendment or the Secretary may request additional information from the applicant. Upon notification of a deficiency in an application by the Secretary, the applicant shall have ten (10) days or up to the Board meeting date, whichever date comes first, to submit the required information. If an amendment to the application is not received by the aforementioned date, the application will be denied, and the applicant must submit a new application and fees for further consideration.
 - 2. The staff of the Board under the supervision of the Secretary shall make a recommendation to approve, disapprove, or refer to the Board each applicant with a complete application.
 - 3. Upon consideration of the recommendation of the Secretary and after any evaluation considered desirable by the Board, the Board shall act to approve or disapprove all applicants with complete applications.
 - 4. If an application for examination is denied, the applicant must submit a new application with fees for consideration for any future examination.
- (2) Application for certification by reciprocity.
 - (a) A separate application for each certification shall be made on an original form approved by the Board for that purpose and available upon request from the Secretary of the Board.
 - (b) An application for certification must be submitted to the Secretary of the Board and include the following items:
 - 1. A sworn and notarized application signed by the applicant.
 - 2. Payment of a non-refundable \$100 for each application for reciprocity.
 - 3. A copy of any verifying document in support of an application must be submitted with the application unless the applicant has previously provided such documentation to the Secretary of the Board. This includes, but is not limited to, proof of high school education or equivalent of the applicant. College transcripts, if needed to document experience credit, must be submitted directly from the college and/or university to the Secretary to the Board. Credit for enrollment in special training courses and programs will only be granted to an applicant upon verification that he/she satisfactorily completed all course or program requirements. If training credit is requested, a copy of a course attendance card, a class roster, or a certificate of completion must be submitted to the Secretary.
 - (c) A complete application must be received by the Secretary sixty (60) days or more in advance of the scheduled Board meeting date for consideration. Applications received less than sixty (60) days prior to the Board meeting date will be reviewed at the next Board meeting. Upon written

request by an applicant, the Board may choose to review a late reciprocity application where extenuating circumstances occur.

- (d) Applications will be reviewed for completeness and for compliance with the requirements of Rules 0400-49-01-.07 and 0400-49-01-.09 for education and experience by staff of the Board under the supervision of the Secretary.
1. Applications which are not complete or which provide inadequate information to allow a reasonable judgment of experience and/or education shall either be returned to the applicant by the Secretary for amendment or the Secretary may request additional information from the applicant. Upon notification of a deficiency in an application by the Secretary, the applicant shall have ten (10) days or up to the Board meeting date, whichever date comes first, to submit the deficient information. If an amendment to the application is not received by the aforementioned date, the application will be denied, and the applicant must submit a new application with fees for further consideration.
 2. Verification of certification from the reciprocating state must be received before staff of the Board can make a recommendation and before the application can be offered to the Board for review.
 3. The staff of the Board under the supervision of the Secretary shall make a recommendation to approve, disapprove, or refer to the Board each applicant with a complete application.
 4. Upon consideration of the recommendation of the Secretary and after any evaluation considered desirable by the Board, the Board shall act to approve or disapprove all applicants with complete applications.
 5. If an application for reciprocity is denied, the applicant must submit a new application with fees for consideration for any future reciprocity requests.

Authority: T.C.A. §§ 68-221-901 et seq. and 4-5-201 et seq.

0400-49-01-.02 Examinations.

- (1) All examinations shall be written except that the Board may approve alternate examination methods if an applicant has a disability which would prevent him/her from taking a written examination.
- (2) All examinations shall be taken by the applicant without the assistance of course text materials, student notes, computer stored materials, or other materials.
- (3) The examination may contain one or more of the following type questions: matching, multiple choice, true-false, discussion, short answer, and problems.
- (4) An applicant who correctly scores at least seventy percent (70%) on a written examination, and who is otherwise eligible, shall receive a certificate of competency.
- (5) An applicant shall be notified in writing whether his/her examination score was satisfactory for the issuance of a certificate.
- (6) An applicant who fails to achieve a satisfactory score may reapply for the next examination by submitting an abbreviated application for examination with fees, but he/she shall not be eligible to take another examination for the particular operator classification which he/she failed until five months have elapsed from the date that examination was taken.
- (7) All examinations shall be administered by the Board or its authorized representatives who are empowered to maintain the integrity of all examinations.
- (8) (a) An applicant shall be guilty of cheating upon a written examination who does an act including, but not limited to, the following:

1. violates paragraph (2) of this rule; or
 2. without express authorization from examination officials,
 - (i) removes examination materials furnished by the Board or the written examination itself, in whole or in part, from the examination room, or
 - (ii) aids another applicant in answering examination questions during a written examination; or
 3. violates the examination rules.
- (b) Upon a determination by the Commissioner that an applicant is guilty of cheating upon a written examination for a particular operator classification, the applicant shall not be issued an initial certificate of competency for that classification.
- (c) An applicant shall be ineligible to again apply for certification in that same operator classification for one year from the date the determination of cheating becomes final.

Authority: T.C.A. §§ 68-221-901 et seq. and 4-5-201 et seq.

0400-49-01-.03 Fees.

(1) Fees for Certification

(a) Fees for certification shall be required of each applicant and paid in advance as follows:

1. Application fee for each operator examination or reciprocity request applied for..... \$100
2. Discount annual renewal fee for each operator certificate:
(Payment prior to February 1)..... \$30
3. Standard annual renewal fee for each operator certificate:
(Payment from February 1 through June 30.)..... \$60

(b) No application fee will be returned.

(c) Upon payment of an application fee and approval by the Board, an applicant may take any one scheduled examination during the following twelve (12) months. If an applicant chooses not to take or fails to appear for, the first examination offered after receiving approval, the applicant must register on a form approved by the Board to be scheduled for a subsequent exam within the established time. The registration must occur sixty (60) days in advance of the examination he/she wishes to take. If an applicant does not take the examination within twelve (12) months of the Board's approval, he/she must reapply by submitting a new application with fees in order to be considered to take a subsequent examination.

(d) Each year a certified operator shall submit to the Board for the following year a completed certificate renewal application and a fee for the renewal of each operator certificate he/she possesses. Applications received prior to February 1 of each year shall be subject to discount renewal fees. Applications received February 1 through June 30 of each year shall be subject to standard renewal fees. Any person failing to meet the June 30 deadline may, within sixty (60) days of the deadline, request that the Board grant a variance. A variance may be granted when the delay was caused by Board or staff error, Board action, or documented postal error. A completed certificate renewal application or appropriate annual renewal fee for an expired certificate not received by the Board by June 30 shall preclude the recertification of the operator in his/her expired classification until he/she shall have fulfilled all the requirements for the issuance of an initial certificate in that classification, including the satisfactory completion of a

written examination. When an operator classification is upgraded, the certificate he/she was upgraded from becomes void; and no additional fee payment is necessary until renewal.

(2) Fees for Cross Connection Control Training Registration

(a) Fees for Cross Connection Control Training registration shall be required of each person and paid in advance as follows:

1. Registration fee for a Cross Connection Control Basic Class (full time employees of public water systems as defined in T.C.A. § 68-221-703 and Department employees who assist with cross connection control training or testing classes are exempt) \$275
2. Registration fee for a Cross Connection Control Renewal Class (full time employees of public water systems as defined in T.C.A. § 68-221-703 and Department employees who assist with cross connection control training or testing classes are exempt) \$110

(b) No registration fee will be returned.

(c) The registration fee must be received thirty (30) days in advance of the class he/she wishes to take.

(3) Fees for Cross Connection Control Testing Application

(a) Fees for Cross Connection Control Testing Application shall be required of each person and paid in advance as follows:

1. Application for a Cross Connection Control Basic Test (Department employees who assist with cross connection control training or testing are exempt)\$60
2. Application fee for Cross Connection Control Renewal Test (Department employees who assist with cross connection control training or testing are exempt) \$60

(b) Application fees are not refundable or transferable.

(c) The application for testing conducted by the Department must be received a minimum of thirty (30) days in advance of the test he/she wishes to take, however, applications from private institutions may be received the day the test materials are submitted to the Fleming Training Center.

(d) Prior to sitting for a test, an applicant must present proof of completion of training accepted by the Department for the appropriate test. Basic training may be accepted by the Department if it has a minimum class length of 480 minutes (300 minutes minimum in classroom), including but not limited to the following topics: hydraulic and backflow principles, theory of backflow and cross connection, codes and regulations of a cross connection control program, responsibilities and actions in a cross connection control program and mechanical equipment for cross connection control. Acceptable training must also provide a minimum of one working practice station and test kit for each three students. Renewal training may be accepted by the Department if it has a minimum class length of 300 minutes (180 minutes minimum in classroom) including but not limited to the following topics: hydraulic and backflow principles, theory of backflow and cross connection, codes and regulations of a cross connection control program, responsibilities and actions in a cross connection control program and mechanical equipment for cross connection control. Acceptable training must also provide a minimum of one working station and test kit for each three students.

(e) An applicant must take the test within twelve (12) months of receipt of the training certificate.

Authority: T.C.A. §§ 68-203-101 et seq., 68-221-901 et seq. and 4-5-201 et seq.

0400-49-01-.04 General.

- (1) Certification under T.C.A. §§ 68-221-901 et seq., being the "Water and Wastewater Operator Certification Act," is available to any operator of a water treatment plant, a wastewater treatment plant, a water distribution system, or a wastewater collection system who meets the minimum qualifications of a given classification.
- (2) Each person in direct charge at a water treatment plant, a wastewater treatment plant, a water distribution system, or a wastewater collection system shall hold a certificate in a grade equal to or higher than the grade of the treatment plant, distribution system, or collection system he/she operates. The grade of a facility will be established by the criteria set forth in this chapter of rules.
- (3) All operating personnel making process control/system integrity decisions about water quality or quantity that affect public health must be certified. A designated certified operator must be available for each operating shift.
- (4) Each water supply system and wastewater system required to have a certified operator shall, no later than the first day of August annually, inform the Board, through its designated agent, the Division of Water Resources, in writing of the name of each person who is a certified operator in direct charge of any water treatment plant, wastewater treatment plant, water distribution system or wastewater collection system it operates. A system shall notify the Division of Water Resources in writing within thirty (30) days of its loss of the services of a certified operator in direct charge.
- (5) A certified operator shall be responsible for keeping the Board Secretary informed of his/her current address.

Authority: T.C.A. §§ 68-221-901 et seq. and 4-5-201 et seq.

0400-49-01-.05 Definitions.

- (1) "Available" means that a certified operator must be on site or able to be contacted as needed to initiate the appropriate action in a timely manner, based on system size, complexity and the quality of either the source water or the receiving stream.
- (2) "Board" means the board of certification as described in T.C.A. § 68-221-905.
- (3) "Commissioner" and "Department" mean the Commissioner of the Tennessee Department of Environment and Conservation or his/her duly authorized representative.
- (4) "Operating Shift" is that period of time during which operator decisions that affect public health are necessary for proper operation of the system.
- (5) "Process control/system integrity decisions" means decisions regarding the manipulation of equipment, chemicals or processes that determine the quality and quantity of the water supplied by a water treatment plant or a water distribution system, or the quality of the effluent from a wastewater treatment plant or the integrity of a wastewater collection system.
- (6) "Person in direct charge" as used in these rules means the person or persons expressly designated to be in direct charge and so named in writing to the Board's authorized representative by each water supply system and wastewater system, whose decisions and directions to system personnel control the manipulation of equipment and thereby determine the quality and quantity of the water supplied by a water treatment plant or a water distribution system, or the quality of the effluent from a wastewater treatment plant or the integrity of a wastewater collection system.

Authority: T.C.A. §§ 68-221-901 et seq. and 4-5-201 et seq.

0400-49-01-.06 Classification of Water Treatment Plants and Water Distribution Systems.

- (1) Water treatment plants shall be classified by the Board or its authorized representative into one of five groups, designated either as Small Water, Grade I, II, III, or IV. These classifications shall be made according to the number of population served, the type of treatment plant, and the complexity of treatment required for a particular water.

(2) The classification of a water treatment plant or a water distribution system may be changed by the Board or its authorized representative because of changes in the conditions or the circumstances upon which the original classification was based. Notice of such a classification change shall be given to the management officers of the plant or system.

(3) Types of Water Systems:

(a) Water Treatment. A water treatment plant using filtration, iron removal, and/or lime-soda softening processes or requiring chemical or bacteriological control of operation will be classified in accordance with the following point totals:

Grade IV	61 or more points
Grade III	35 to 60 points
Grade II	16 to 34 points
Grade I	15 or less points

Point totals for plant classification shall be computed in accordance with the following rating value criteria:

Rating Value
Points

Design Flow - For every one million gallons per day design capacity, or fraction thereof, a plant will be awarded a rating value of: 1 pt.

Water Supply Source - Based upon the type and quality of the raw water source, a plant will be awarded rating values of:

Groundwater	3 pts.
Ground water under the direct influence of surface water.....	5 pts.
Surface water.....	5 pts.
Average raw water quality.....	0-10 pts.*

Treatment Process - A plant employing any of the following treatment processes will be awarded rating values of:

Aeration	4 pts.
Presettling	2 pts.
Flash mix	2 pts.
Coagulation.....	6 pts.
Flocculation	5 pts.
Settling	5 pts.
Upflow Solids Contact	8 pts.
Lime softening	5 pts.
Gravity Filtration	
slow sand	2 pts.
rapid	6 pts.
Pressure Filtration	3 pts.
Recarbonation	3 pts.
Membrane Filtration	20 pts.
Activated alumina	10 pts.
Ion Exchange	5 pts.

Chemical Treatment - A plant utilizing any of the following chemicals or chemical treatment processes will be awarded rating values of:

Fluoridation	3 pts.
Disinfection	

Gaseous chlorine	5 pts.
Liquid or powdered chlorine	3 pts.
Chlorine dioxide	7 pts.
Ozonization (on-site generation)	10 pts.
On-site generation of Chlorine	5 pts.
Mixed Oxidants	7 pts.
UV Light	3 pts.

Taste and Odor Control

Peroxide	3 pts.
Potassium Permanganate	2 pts.
Powdered activated carbon	4 pts.
Activated carbon columns	6 pts.
Activated carbon slurry	8 pts.

Chemical Stabilization

(polyphosphate, Soda Ash, etc.)	4 pts.
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Laboratory Control by Plant Personnel - Based upon the type and the difficulty of the laboratory work performed at a plant, a plant will be awarded rating values of:

Bacteriological	0-10 pts.*
Chemical	0-10 pts.*

Total Points **

* See Table 1

** If a rating value points total would not accurately reflect special conditions at a plant and a material distortion in its rating would occur, the Board will establish the classification of the plant after a review of its special conditions.

Table 1

*Average Raw Water Quality - Points are assigned to a plant as follows:

Raw water quality varies enough to require treatment process changes less than thirty-six (36) days each calendar year	2 pts.
Raw water quality varies enough to require treatment process changes thirty-six (36) days or more each calendar year	5 pts.
Raw water quality varies enough to require treatment process changes due to existing industrial waste pollution sources	10 pts.

*Laboratory Control by Plant Personnel (Bacteriological) - Points are assigned in accordance with the type of laboratory control performed at the plant:

Lab work done outside of plant	0 pts.
Enzyme Substrate Method	4 pts.
Membrane filter procedure	5 pts.
Fermentation tubes or any dilution method	7 pts.
Biological identification	10 pts.

*Laboratory Control by Plant Personnel (Chemical) - Points are assigned in accordance with the type of laboratory control performed at the plant:

Lab work done outside the plant	0 pts.
Colorimetric methods for simple tests such as chlorine, pH	3 pts.
Procedures such as titration, jar tests	5 pts.
More advanced determinations including inorganics	7 pts.
Highly sophisticated instrumentation such as atomic absorption and	

gas chromatography 10 pts.

- (b) Grade I Distribution. This classification is for a water distribution system that serves at least fifty (50) service connections but no more than five thousand (5,000) service connections. This classification serves as a certificate to operate a small water system.
- (c) Grade II Distribution. This classification is for a water distribution system that serves more than five thousand (5,000) service connections. This classification serves as a certificate to operate a small water system.
- (d) Small Water Systems. This classification includes:
 - 1. All community and non-transient non-community water systems which have a ground water source not under the direct influence of surface water and serve less than fifty (50) service connections, provided the system does not use any treatment other than disinfection, and those systems which purchase water for resale and serve less than fifty (50) service connections; and
 - 2. Transient non-community water systems which have a ground water source not under the direct influence of surface water and serve less than one-hundred (100) service connections, provided the system does not use any treatment other than disinfection and/or cartridge filtration.

This classification serves as a distribution system certification for those systems meeting the definition of a small water system.

Authority: T.C.A. §§ 68-221-901 et seq. and 4-5-201 et seq.

0400-49-01-.07 Classifications and Qualifications of Water Treatment Plant Operators and Water Distribution System Operators.

- (1) (a) Grade IV Water Treatment Plant Operator - Certification as an operator in this classification will be made only upon the satisfactory completion by the applicant of the requirements of either part 1 or 2 of this subparagraph.
 - 1. An applicant must have a bachelor degree in engineering, chemistry or a related science from an accredited college or university, must have twelve (12) months of operating experience at a Grade III or a Grade IV Water Treatment plant, and must satisfactorily complete a written examination.
 - 2. An applicant must have a high school education or equivalent, must have sixty (60) months of operating experience at a Grade III or a Grade IV Water Treatment plant, and must satisfactorily complete a written examination. Within the discretion of the Board, college course work in related science or engineering courses satisfactorily completed or Board sanctioned comprehensive training in chemistry, bacteriology, and the fundamentals of water treatment satisfactorily completed through schools for operators, correspondence courses, or other special training may be credited toward the required operating experience to a maximum equivalency of thirty-six (36) months.
 - 3. To receive full time operating experience credit, a minimum of 100% of the activities must be work experience duties. The Board reserves the right to adjust calendar months of experience to a reduced number of months of experience where it is obvious that an applicant's experience routinely includes other duties. The Board encourages documented apprenticeship training programs and classroom training provided by the employer to better prepare an operator to make decisions in plant operation to assure public health protection.
- (b) Grade III Water Treatment Plant Operator
 - 1. An applicant must have a high school education or equivalent, must have twelve (12)

months of operating experience at a Grade III water treatment plant or twelve (12) months at a Grade II and six months at a Grade III, and must satisfactorily complete a written examination. Board sanctioned comprehensive training in chemistry, bacteriology, and the fundamentals of water treatment satisfactorily completed through schools for operators, correspondence courses, or other special training programs may be credited toward the required operating experience to a maximum equivalency of three (3) months.

2. To receive full time operating experience credit, a minimum of 50% of the activities must be work experience duties.

(c) Grade II Water Treatment Plant Operator

1. An applicant must have a high school education or equivalent, must have twelve (12) months of operating experience at a Grade I or a Grade II Water Treatment plant, and must satisfactorily complete a written examination. Board sanctioned comprehensive training in chemistry, bacteriology, and the fundamentals of water treatment satisfactorily completed through schools for operators, correspondence courses, or other special training programs may be credited toward the required operating experience to a maximum equivalency of three (3) months.
2. To receive full time operating experience credit, a minimum of 33% of the activities must be work experience duties.

(d) Grade I Water Treatment Plant Operator

1. An applicant must have a high school education or equivalent, must have twelve (12) months of operating experience at a Grade I water treatment plant or a small water system, and must satisfactorily complete a written examination. Board sanctioned comprehensive training in chemistry, bacteriology, and the fundamentals of water treatment satisfactorily completed through schools for operators, correspondence courses, or other special training programs may be credited toward the required operating experience to a maximum equivalency of three (3) months.
2. To receive full time operating experience credit, a minimum of 33% of the activities must be work experience duties.

- (e) Small Water System Operator - An applicant must have a high school education or equivalent, and must have three (3) months of experience in a water system classified as a "small water system" and must satisfactorily complete a written examination.

(f) Grades I & II Water Distribution System Operator

1. An applicant must have a high school education or equivalent, must have twelve (12) months of operating experience at a water distribution system, and must satisfactorily complete a written examination. Board sanctioned comprehensive training including installation, operation, maintenance and repair of distribution systems, satisfactorily completed through schools for operators, correspondence courses, or other special training programs may be credited toward the required operating experience to a maximum equivalency of three (3) months.
2. To receive full time operating experience credit, a minimum of 50% of the activities must be work experience duties.

(2) Reclassifications Resulting from Amendments of this Chapter

- (a) The reclassification of a water treatment plant or a water distribution system that immediately occurs as a result of amendments to this chapter shall not reduce the operator classification of a certified operator then employed at that plant or system to a lower operator classification.

- (b) The reclassification of a water treatment plant or a water distribution system that immediately occurs as a result of amendments to this chapter shall raise the operator classification of a certified operator then employed at that plant or system to a higher operator classification equivalent with the new classification of the plant or system. This subparagraph shall apply only to a certified operator whose operator classification, immediately prior to reclassification of the plant or system pursuant to amendments to this chapter, is at least equivalent with the classification of the plant or system at which he/she is employed.
 - (c) An applicant for examination who is employed at a water treatment plant or a water distribution system that has been reclassified by the Department and certified at the appropriate level may have his/her experience at the facility applied at a rate equal to the level of the reclassified facility.
 - (d) An operator classification authorized under prior rules that is eliminated upon amendments to this chapter becoming effective shall be reclassified to the highest comparable operator classification authorized under these rules.
 - (e) An operator's classification may be changed by the Board if the operator is employed at a water plant or distribution system that has been incorrectly classified by the Department for one year or more. The operator must hold a valid certificate equal to the incorrect plant or system classification and must have applied for and achieved the certificate based on the incorrect classification.
- (3) Operating Experience Credit for Approved Study
- (a) For part (1)(a)2 of this rule, the Board may approve for each one (1) semester hour, or one and one half (1½) quarter hours, of academic study satisfactorily completed at an accredited college or university in related science or engineering courses as equal to one month of the operating experience required as a qualification of a certified water treatment plant operator.
 - (b) For parts (1)(a)2, (1)(b)1, (1)(c)1, (1)(d)1, and (1)(f)1 of this rule, each day of Board sanctioned comprehensive training, satisfactorily completed, through schools for operators, correspondence courses, or other special training programs may be equal to one month of the operating experience required as a qualification of a certified water treatment plant operator.
- (4) Work Experience
- (a) The Board may approve the water treatment operating experience required in parts (1)(a)1, (1)(a)2, (1)(b)1, (1)(c)1, and (1)(d)1 of this rule in two or more of the following work experience duties:
 - Operation and/or maintenance of:
 - Pretreatment systems
 - Coagulant feed systems
 - Filtration systems
 - Fluoride feed systems
 - Stabilization feed systems
 - Hypochlorination systems
 - Gas chlorination systems
 - Pumps and/or motors
 - Laboratory Control Tests
 - Interpretation and plant adjustments
 - (b) An operator applying for a Grade IV water treatment system certification may be granted partial credit by the Board for up to sixty percent (60%) of any approved operating experience obtained in a wastewater system.
 - (c) The Board may approve the distribution system operating experience required in part (1)(f)1 of this rule in two or more of the following work experience duties:

Operation and/or maintenance of:

- Pumps
- Booster stations
- Fire hydrants
- Valves
- Storage tanks
- Distribution system flushing
- Pipeline installation
- Tap installation
- Leak detection
- Leak repairs
- Cross connection control

(5) Summary of Water Treatment Plant and Distribution System Operator Education and Experience Requirements

Water Treatment Plant Operators

Classification	Experience			Maximum Training or College Classwork Substitution	Maximum Related Work Substitution
	Experience needed with:	HS Education	BS Degree		
Grade IV	Gained at a Grade III or IV Water Plant	*60 months	12 Months	36 Months	36 Months
*Regardless of the substitution allowances, a minimum of 1 year of actual work experience is required					
Grade III	Gained at a Grade III Water Plant	12 Months		3 Months	
	Gained at a Grade II and Gained at a Grade III	12 Months 6 Months		3 Months	
Grade II	Gained at a Grade I or II Water Plant	12 Months		3 Months	
Grade I	Gained at a Grade I Water Plant or SWS	12 Months		3 Months	
Grade SWS	Gained at a Small Water System (SWS)	3 Months			

Distribution System Operators

Classification	Experience		Maximum Training or College Classwork Substitution	Maximum Related Work Substitution
	Experience needed with:	HS Education		
Grade II	Gained at a Distribution I or II System	12 Months	3 Months	
Grade I	Gained at a Distribution I or II System	12 Months	3 Months	

Authority: T.C.A. §§ 68-221-901 et seq. and 4-5-201 et seq.

0400-49-01-.08 Classification of Wastewater Treatment Plants and Wastewater Collection Systems.

- (1) Wastewater treatment plants shall be classified by the Board or its authorized representative into one of five groups, designated either as Biological/Natural, Grade I, II, III, or IV. These classifications shall be made in accordance with the point total scheme below which takes into account the design flow of the plant, its type of unit processes, its character, and the volume of wastewater it treats.
- (2) The term "collection system" means a system for the collection and transmission of wastewater to a treatment plant.

(3) The classification of a wastewater treatment plant or a wastewater collection system may be changed by the Board or its authorized representative because of changes in the conditions or the circumstances upon which the original classification was based. Notice of such a classification change shall be given to the management officers of the plant or system.

(4) Types of Wastewater Systems:

(a) A wastewater treatment plant, except Biological/Natural, will be classified either as Grade I, II, III or IV in accordance with the following point totals:

Grade IV	76 or more points
Grade III	56 to 75 points
Grade II	55 points or less
Grade I.....	This classification is for a wastewater treatment plant with a capacity of seventy-five thousand (75,000) gallons per day or less. This classification serves as a Collection System certification for Grade I Collection Systems with less than fifteen (15) service connections.

Biological/Natural This classification is for wastewater systems using natural biological treatment as the predominant means for treatment. This includes stabilization ponds, intermittent sand filters, recirculating sand filters, spray-irrigation, constructed wetlands, aerated lagoons, and overland flow systems. This classification serves as a Collection System certification for Grade I Collection Systems with less than fifteen (15) service connections.

Point totals for plant classification shall be computed in accordance with the following rating value criteria:

	Rating Value Points
Design Flow - For every one million (1,000,000) gallons per day design capacity, fraction thereof, a plant will be awarded rating value of:	2 pts.
(30 points maximum)	

Effluent Discharge - Based upon the following factors, a plant will be awarded rating values of:

Receiving stream (sensitivity)	0-7 pts.*
Land disposal – evaporation	2 pts.
Subsurface disposal	4 pts.

Variation in Raw Wastes - Based upon the variation in the quality of the raw wastes, plant will be awarded a rating value of: 0-6 pts.*

Preliminary Treatment Units - A plant employing any of the following preliminary treatment processes will be awarded rating values of:

Manually cleaned screens	2 pts.
Mechanically cleaned screens	3 pts.
Preaeration	2 pts.
Comminutor, barminutor, grinders, etc	3 pts.
Grit removal	3 pts.
Raw sewage pumping	3 pts.
Flow equalization basins (Aerated)	5 pts.
Flow equalization basins (Unaerated)	2 pts.
Fine screens	3 pts.

Primary Treatment Units - A plant employing any of the following primary treatment processes will be awarded rating values of:

Pre-chlorination	3 pts.
Primary Clarifiers	5 pts.
Primary Clarifiers with chemical settling aid	7 pts.
Swirl system	3 pts.

Secondary Treatment Units - A plant employing any of the following secondary treatment processes will be awarded rating values of:

Secondary Clarifiers	5 pts.
Flocculation with or without chemical aid	7 pts.
Trickling Filter without recirculation	6 pts.
Trickling Filter with recirculation	8 pts.
Activated Sludge+	
Oxidation ditch	8 pts.
Mechanical aeration	9 pts.
Diffused or dispersed aeration	10 pts.
Batch Treatment (ICEAS, etc)	10 pts.
Pure oxygen	15 pts.

+ Add ten (10) additional points for a two-stage activated sludge facility

Tertiary Treatment Units/Advanced Treatment - A plant employing any of the following tertiary, or advanced, treatment processes will be awarded rating values of:

Polishing pond or Effluent flow equalization	2 pts.
Land application of treated effluent	5 pts.
Chemical treatment removal	6 pts.
Denitrification	10 pts.
Sand or mixed media filters	8 pts.
Activated Carbon Beds	10 pts.
Nitrification required by permit	
By Activated Sludge	6 pts.
Nitrification by other process	5 pts.

Disinfection - Based upon the type of disinfection process employed, a plant will be awarded rating values of:

Chlorination	5 pts.
Dechlorination	5 pts.
Ozonization	10 pts.
Ultraviolet	5 pts.

Sludge Treatment and Handling - A plant employing any of the following sludge treatment and handling facilities will be awarded rating values of:

Anaerobic digestion	
Unheated	5 pts.
Heated	10 pts.
Aerobic digestion	7 pts.
Drying beds	3 pts.
Sand bed with polymer added	5 pts.
Gravity thickener	5 pts.
Dissolved air floatation thickener	8 pts.
Vacuum filter	8 pts.
Centrifuge	8 pts.
Belt Press, Plate & Frame	8 pts.
Solids reduction (Incinerator, wet oxidation, etc.)	15 pts.
Land application	5 pts.
Chemical stabilization with lime	8 pts.
All other dewatering units including wedgewire and vacuum beds,	

both with polymers	5 pts.
Composting: In vessel	10 pts.
Composting: Static Pile	5 pts.
Sludge Lagoon	3 pts.

Laboratory Control by Plant Personnel - Based upon the type and difficulty of laboratory work performed at a plant, a plant will be awarded rating values of:

Bacteriological (Complexity)	0-10 pts.*
Chemical/Physical (Complexity)	0-10 pts.*

Total Points **

* See Table 2

** If a rating value points total would not accurately reflect special conditions at a plant and a material distortion in its rating would occur, the Board will establish the classification of the plant after a review of its special conditions.

Table 2

Effluent Discharge - Points are assigned to a plant based upon the following receiving stream sensitivity criteria 0-7 pts.*

The key concept is the degree of dilution provided under low flow conditions. Assigned point values are:

Secondary, or equivalent to secondary, wastewater treatment only is required	1 pt.
Advanced secondary treatment	3 pts.
Tertiary treatment	5 pts.
Effluent used in a direct reuse system	7 pts.

Variation in Raw Wastes - Points are assigned to a plant based upon the variation from slight to extreme of the following factors: 0-6 pts.*

The key concept is frequency and/or intensity of deviation or excessive variation from normal or typical fluctuations; such deviation can be in terms of strength, toxicity, shock.

Recurring deviations or excessive variations in strength and/or flow less than 100 percent	0 pts.
Recurring deviations or excessive variations in strength and/or flow from 100 to 200 percent	2 pts.
Recurring deviations or excessive variations in strength and/or flow of more than 200 percent	4 pts.
Raw wastes subject to toxic waste discharges	6 pts.

Laboratory Control by Plant Personnel - Points are assigned in accordance with the type of laboratory control performed at the plant:

Bacteriological/biological (complexity)	0-10 pts.*
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The key concept is to credit bacteriological/biological lab work done on-site by plant personnel. Assigned point values are:

Lab work done outside the plant	0 pts.
Membrane filter procedures	3 pts.
Use of fermentation tubes or any dilution method	5 pts.
Biological identification	7 pts.

Chemical/physical (complexity) 0-10 pts.*

The key concept is to credit chemical/ physical lab work done on-site by plant personnel.

Lab work done outside the plant 0 pts.
Push-button or visual methods for simple tests such as pH, settleable solids 3 pts.
Additional procedures such as DO, COD, BOD, gas analysis, titrations, solids, volatile content 5 pts.
More advanced determinations such as specific nutrients, total oils, phenols, etc 7 pts.
Highly sophisticated instrumentation such as atomic absorption and gas chromatography 10 pts.

These terms describe the minimum level of effluent quality attainable for treated wastewater under standard design conditions in terms of the arithmetic mean of the values for effluent samples collected in a period of thirty (30) consecutive days for the following parameters: five-day biochemical oxygen demand (BOD₅); total suspended solids (TSS); and acidity/alkalinity (pH).

1. "Equivalent to secondary wastewater treatment" means the 30-day average for BOD₅ does not exceed 45 mg/l and there is no ammonia limit.
 2. "Secondary wastewater treatment" means the 30-day average for BOD₅ does not exceed 30 mg/l and there is no ammonia limit.
 3. "Advanced secondary wastewater treatment" means that the biochemical oxygen demand is expressed as the carbonaceous form (CBOD₅) that is equal to or greater than 10 mg/l and is equal to or less than 25 mg/l; and there is an ammonia limit.
 4. "Tertiary wastewater treatment" means that the CBOD₅ is less than 10 mg/l and there is an ammonia limit.
- (b) Grade I Collection System. This classification is for a wastewater collection system that uses collector and/or transmission lines to transport wastewater to a treatment plant and which serves no more than five thousand (5,000) service connections.
- (c) Grade II Collection System. This classification is for a wastewater collection system that uses collector and/or transmission lines to transport wastewater to a treatment plant and which serves more than five thousand (5,000) service connections.

Authority: T.C.A. §§ 68-221-901 et seq. and 4-5-201 et seq.

0400-49-01-.09 Classifications and Qualifications of Wastewater Treatment Plant Operators and Wastewater Collection System Operators.

(1) (a) Grade IV Wastewater Treatment Plant Operator

Certification as an operator in this classification will be made only upon the satisfactory completion by the applicant of the requirements of either parts 1 or 2 of this subparagraph.

1. An applicant must have a bachelor degree in engineering, chemistry or a related science from an accredited college or university, must have twelve (12) months of operating experience at a Grade III or a Grade IV Wastewater Treatment plant, and must satisfactorily complete a written examination.
2. An applicant must have a high school education or equivalent, must have sixty (60) months of operating experience at a Grade III or a Grade IV Wastewater Treatment plant,

and must satisfactorily complete a written examination. Within the discretion of the Board, college course work in related science or engineering courses satisfactorily completed, or Board sanctioned comprehensive training in chemistry, bacteriology, and the fundamentals of wastewater treatment satisfactorily completed through schools for operators, correspondence courses, or other special training, may be credited toward the required operating experience to a maximum equivalency of thirty-six (36) months.

3. To receive full time operating experience credit, a minimum of 100% of the activities must be work experience duties. The Board reserves the right to adjust calendar months of experience to a reduced number of months of experience where it is obvious that an applicant's experience routinely includes other duties. The Board encourages documented apprenticeship training programs and classroom training provided by the employer to better prepare an operator to make decisions in plant operation to assure public health protection.

(b) Grade III Wastewater Treatment Plant Operator

1. An applicant must have a high school education or equivalent, must have twelve (12) months of operating experience at a Grade II wastewater treatment plant or a Grade III wastewater treatment plant, and must satisfactorily complete a written examination. Board sanctioned comprehensive training in chemistry, bacteriology, and the fundamentals of wastewater treatment satisfactorily completed through schools for operators, correspondence courses, or other special training programs may be credited toward the required operating experience to a maximum equivalency of three (3) months.
2. To receive full time operating experience credit, a minimum of 50% of the activities must be work experience duties.

(c) Grade II Wastewater Treatment Plant Operator

1. An applicant must have a high school education or equivalent, must have twelve (12) months of operating experience at a Grade I wastewater treatment plant or a Grade II wastewater treatment plant, and must satisfactorily complete a written examination. Board sanctioned comprehensive training in chemistry, bacteriology, and the fundamentals of wastewater treatment satisfactorily completed through schools for operators, correspondence courses, or other special training programs may be credited toward the required operating experience to a maximum equivalency of three (3) months.
2. To receive full time operating experience credit, a minimum of 33% of the activities must be work experience duties.

(d) Grade I Wastewater Treatment Plant Operator

1. An applicant must have a high school education or equivalent, must have twelve (12) months of operating experience in a Grade I wastewater treatment plant or twelve (12) months operating experience at a biological/natural system and six (6) months at a Grade I wastewater treatment plant, and must satisfactorily complete a written examination. Board sanctioned comprehensive training in chemistry, bacteriology, and the fundamentals of wastewater treatment satisfactorily completed through schools for operators, correspondence courses, or other special training programs may be credited toward the required operating experience to a maximum equivalency of three (3) months.
2. To receive full time operating experience credit, a minimum of 33% of the activities must be work experience duties.

(e) Biological/Natural System Operator

1. An applicant must have a high school education or equivalent, must have twelve (12) months of operating experience in a wastewater system classified as a biological/natural system, and must satisfactorily complete a written examination. Board sanctioned

comprehensive training in chemistry, bacteriology, and the fundamentals of wastewater treatment satisfactorily completed through schools for operators, correspondence courses, or other special training programs may be credited toward the required operating experience to a maximum equivalency of three (3) months.

2. To receive full time operating experience credit, a minimum of 33% of the activities must be work experience duties.

(f) Grades I & II Wastewater Collection System Operator

1. An applicant must have a high school education or equivalent, must have twelve (12) months of operating experience at a wastewater collection system, and must satisfactorily complete a written examination. Board sanctioned comprehensive training including installation, operation, maintenance and repair of collection systems, satisfactorily completed through schools for operators, correspondence courses, or other special training programs may be credited toward the required operating experience to a maximum equivalency of three (3) months.
2. To receive full time operating experience credit, a minimum of 50% of the activities must be work experience duties.

(2) Reclassifications Resulting from Amendments to this Chapter

- (a) The reclassification of a wastewater treatment plant or a wastewater collection system that immediately occurs as a result of amendments to this chapter shall not reduce the operator classification of a certified operator then employed at that plant or system to a lower operator classification.
- (b) The reclassification of a wastewater treatment plant or a wastewater collection system that immediately occurs as a result of amendments to this chapter shall raise the operator classification of a certified operator then employed at that plant or system to a higher operator classification equivalent with the new classification of the plant or system. This subparagraph shall apply only to a certified operator whose operator classification, immediately prior to reclassification of the plant or system pursuant to amendments to this chapter, is at least equivalent with the classification of the plant or system at which he/she is employed.
- (c) An applicant for examination who is employed at a wastewater treatment plant or a wastewater collection system that has been reclassified by the Department, and certified at the appropriate level, may have his/her experience at the facility applied at a rate equal to the level of the reclassified facility.
- (d) An operator classification authorized under prior rules that is eliminated upon amendments to this chapter becoming effective shall be reclassified to the highest comparable operator classification authorized under these rules. (Industrial Biological Waste Treatment certificates become Grade IV Wastewater certificates).
- (e) An operator's classification may be changed by the Board if the operator is employed at a wastewater plant or collection system that has been incorrectly classified by the Department for one (1) year or more. The operator must hold a valid certificate equal to the incorrect plant or system classification and the operator must have applied for and achieved the certificate based on the incorrect classification.

(3) Operating Experience Credit for Approved Study

- (a) For part (1)(a)2 of this rule, the Board may approve each one (1) semester hour, or one and one half (1½) quarter hour, of academic study satisfactorily completed at an accredited college or university in related science or engineering courses as equal to one month of the operating experience required as a qualification of a certified wastewater treatment plant operator.

- (b) For parts (1)(a)2, (1)(b)1, (1)(c)1, (1)(d)1, (1)(e)1, and (1)(f)1 of this rule, each day of Board sanctioned comprehensive training, satisfactorily completed, through schools for operators, correspondence courses, or other special training programs may be equal to one month of the operating experience required as a qualification of a certified wastewater treatment plant operator.

(4) Work Experience

- (a) The Board may approve the wastewater treatment operating experience required in parts (1)(a)1, (1)(a)2, (1)(a)3, (1)(b)1, (1)(c)1, (1)(d)1, and (1)(e)1 of this rule in two (2) or more of the following work experience duties:

Control of:

- Solids pumping from clarifiers
- Scum removal in clarifiers
- Return and waste sludge rates
- Aeration rates
- Recirculation rates to trickling filter or rotating biological contactor (RBC)

Operation of:

- Disinfection system feed rates
- Digesters and/or solids conditioning processes

Performance of:

- Calculations and plant control
- Interpretation of laboratory test results
- Interpretation of process control data
- Cleaning and maintenance of preliminary treatment
- Adjustment of wastewater levels or flow through a lagoon system

- (b) An operator applying for a Grade IV wastewater system certification may be granted partial credit by the Board for up to forty percent (40%) of any approved operating experience obtained in a water supply system.

- (c) The Board may approve the collection system operating experience required in part (1)(f)1 of this rule in two or more of the following work experience duties:

Operation and/or maintenance of:

- Pumps
- Lift stations
- Valves
- Lines and equipment
- Pipeline installation
- Service connection installation
- Leak detection
- TV crew activities
- Line repairs
- Line cleaning
- Manhole maintenance
- Pretreatment

(5) Summary of Wastewater Treatment Plant and Collection System Operator Education and Experience

Wastewater Treatment Plant Operators

Classification	Experience			Maximum Training or College Classwork Substitution	Maximum Related Work Substitution
	Experience needed with:	HS Education	BS Degree		
Grade IV	Gained at a Grade III or IV Wastewater Plant	*60 months	12 Months	36 Months	24 Months
*Regardless of the substitution allowances, a minimum of 1 year of actual work experience is required					

Grade III	Gained at a Grade II or III Wastewater Plant	12 Months		3 Months
Grade II	Gained at a Grade I or II Wastewater Plant	12 Months		3 Months
Grade I	Gained at a Grade I Wastewater Plant	12 Months		3 Months
	Gained at Biological/Natural and Grade I Wastewater Plant	12 Months 6 Months		
Grade BNS	Gained at a BNS Wastewater Plant	12 Months		3 Months

COLLECTION SYSTEM OPERATORS

Classification	Experience		Maximum Training or College Classwork Substitution	Maximum Related Work Substitution
	Experience needed with:	HS Education		
Grade II	Gained at a Collection I or II System	12 Months	3 Months	
Grade I	Gained at a Collection I or II System	12 Months	3 Months	

Authority: T.C.A. §§ 68-221-901 et seq. and 4-5-201 et seq.

0400-49-01-.10 Continuing Education.

At least once during every continuing education period each certified operator shall satisfactorily complete the required number of continuing education hours approved by the Board for the particular type of certificate he/she holds. The continuing education period for a certified operator shall begin either with the date the certified operator obtained his/her certificate or the date the certified operator last satisfactorily completed the required number of continuing education hours and shall end at the conclusion of the annual continuing education term three (3) calendar years thereafter. An annual continuing education term shall begin each year on October 1 and shall end on September 30 of the following year. The failure of an operator to satisfactorily complete the required number of continuing education hours approved by the Board Secretary during his/her continuing education period shall be grounds for the denial of his/her application for the renewal of his/her certificate. An operator shall notify the Board Secretary upon his/her satisfactory completion of the continuing education requirement by furnishing appropriate documentation of course completion. Notification by the operator is not necessary in those cases where an agency notifies the Board Secretary of such activity. An operator that fails to satisfactorily complete the required number of continuing education hours during his/her continuing education period due to an unusual event such as an incapacitating illness or similar unavoidable circumstances may make a written request to the Board for an extension of time to do so. All requests by an operator for an extension of time to meet the continuing education requirement must be made in writing to the Board either within two (2) months of the elapsed continuing education period or by the date of return of the operator to active employment, whichever is later. All such requests must be accompanied by complete supporting documentation of the circumstances causing the failure to meet the continuing education requirement.

Authority: T.C.A. §§ 68-221-901 et seq. and 4-5-201 et seq.

0400-49-01-.11 Summary Suspension and Revocation of Certificate.

- (1) An operator's certificate may be revoked when:
 - (a) In accordance with paragraph (2) of this rule, an operator has not used reasonable care, judgment, or the application of his/her knowledge in the performance of his/her duties as a certified operator, or
 - (b) In accordance with paragraph (3) of this rule, an operator is incompetent to perform those duties properly; or
 - (c) In accordance with paragraph (4) of this rule, an operator has practiced fraud or deception.

- (2) An operator shall be deemed to have not used reasonable care, judgment, or the application of his/her knowledge in the performance of his/her duties if he/she does not comply with the laws, rules, permit requirements, or orders of any governmental agency or court which govern the water supply system or the wastewater system he/she operates. Such acts of noncompliance include but are not limited to the following:
- (a) The intentional or the negligent failure by the operator or persons under his/her supervision to act that results in a water supply system facility or a wastewater system facility not operating in the manner in which it is capable of being operated for the performance of its designed function.
 - (b) The intentional or the negligent failure by the operator or persons under his/her supervision to comply with the monitoring, sampling, analysis, or reporting requirements for a water supply system facility or a wastewater system facility.
 - (c) The intentional or the negligent unlawful discharge of wastes from a water supply system facility or a wastewater system facility.
 - (d) The intentional or the negligent failure by the operator or persons under his/her supervision to notify the Department of conditions: which may affect the quantity or quality of water being supplied to the customers of a water supply system; which cause the pollution of the waters of the State of Tennessee; or, which are violative of a standard of water quality promulgated by any governmental agency.
- (3) An operator shall be deemed to be incompetent to perform his/her duties properly when he/she does not possess the basic skills and knowledge necessary to operate a water supply system facility or a wastewater system facility including laboratory functions or if he/she fails to have a system of verification and oversight of employees under his/her charge. Incompetency shall be determined by examining the technical skills of the operator in operating the type of facility of which he/she is in direct charge.
- (4) An operator shall be deemed to have practiced fraud or deception as follows:
- (a) Obtained his/her certificate through fraud, deceit, or the submission of inaccurate data regarding his/her qualifications upon his/her application for a certificate;
 - (b) Has practiced fraud or deception during the performance of his/her duties as a certified operator; or
 - (c) Has prepared and/or signed reports of laboratory analysis results for the system that:
 - 1. Contain inaccurate data and are known or should be known by the operator to be false; or,
 - 2. Contain inaccurate data because the operator has not used reasonable care, judgment, or the application of his/her knowledge either in the performance of the laboratory analysis or in the preparation of the laboratory analytical reports.
- (5) Revocation
- (a) The Commissioner may initiate the process to revoke a certificate when he/she believes an operator has engaged in any of the activities set forth in paragraph (1) of this rule.
 - (b) The Commissioner shall give notice by mail to the affected operator of facts or conduct that warrants revocation of the certificate and give the affected operator an opportunity to show compliance with these rules by conducting an informal hearing as provided in T.C.A. § 4-5-320(c).
 - (c) After the T.C.A. § 4-5-320(c) informal hearing, if the Commissioner determines that the affected operator has failed to demonstrate compliance, the Commissioner shall issue a notice of hearing for revocation and include a recommendation to the Board to revoke and reinstate or not to reinstate the certificate. Any recommendation of reinstatement of the certificate shall include terms for such reinstatement.

(d) The notice of hearing for revocation shall contain the information required by part 1 of this subparagraph and be served in accordance with part 2 of this subparagraph.

1. The notice shall include:

- (i) A statement of the time, place, nature of the hearing, and the right to be represented by counsel;
- (ii) A statement of the legal authority and jurisdiction under which the hearing is to be held, including a reference to the particular sections of the statute and rules involved; and
- (iii) A short and plain statement of the facts or conduct that warrant a revocation. (If the Commissioner is unable to state the matters in detail at the time the notice is served, the initial notice may be limited to a statement of the issues involved. Thereafter, upon timely, written application a more definite and detailed statement shall be furnished ten (10) days prior to the time set the hearing.)

2. A copy of the notice of hearing shall be:

- (i) Served upon the operator no later than thirty (30) days prior to the hearing date; and
- (ii) Served by personal service, return receipt mail or equivalent carrier with a return receipt,

A person making personal service on the operator affected shall return a statement indicating the time and place of service, and a return receipt must be signed by the operator affected. However, if the affected operator evades or attempts to evade service, service may be made by leaving the notice or a copy of the notice at the affected operator's dwelling house or usual place of abode with some person of suitable age and discretion residing therein, whose name shall appear on the proof of service or return receipt card. Service may also be made by delivering the notice or copy to an agent authorized by appointment or by law to receive service on behalf of the affected operator, or by any other method allowed by law in judicial proceedings.

(6) Summary Suspension and Revocation

- (a) The Commissioner may initiate the process of summary suspension and revocation of the certificate when the Commissioner believes that an emergency action is needed to protect the public health, safety or welfare.
- (b) The Commissioner shall give a notice to the affected operator by any reasonable means and shall inform the affected operator of the intended action, the acts or conduct that warrants summary suspension and revocation of the certificate and hold an informal hearing, as provided in T.C.A. § 4-5-320(d), to give the operator an opportunity to address the issue of whether there is an emergency.
- (c) The Commissioner shall appoint a hearing officer to conduct this T.C.A. § 4-5-320(d) hearing and the hearing shall be recorded and transcribed.
- (d) After the informal hearing as provided in T.C.A. § 4-5-320(d), if the Commissioner determines that an emergency action is warranted, the Commissioner shall issue an Order of Summary Suspension and a notice of hearing for revocation and include a recommendation to the Board to reinstate or not to reinstate the certificate. Any recommendation of reinstatement of the certificate shall include terms for such reinstatement.
- (e) The Order of Summary Suspension and the notice for revocation shall contain the information required by part (5)(d)1 of this rule and be served in accordance with part (5)(d)2 of this rule.

- (f) When the Commissioner has issued an Order of Summary Suspension and Notice of Revocation, the Board shall conduct its revocation hearing and render a decision within ninety (90) days of the operator's summary suspension. In the event the Board does not render its decision within ninety (90) days of the operator's summary suspension, the Order of Summary Suspension shall expire and no longer be in force or effect. However, the Commissioner may reissue an Order of Summary Suspension in accordance with this paragraph, for a period not to exceed ninety (90) days.
- (7) The revocation hearing before the Board shall be held in accordance with T.C.A. §§ 4-5-301 et seq. and Rule Chapter 1360-04-01 Uniform Rules of Procedure for Hearing Contested Cases Before State Administrative Agencies.
- (8) The Board may revoke the certificate of an operator when it is found that the operator has practiced fraud or deception; that reasonable care, judgment or the application of such operator's knowledge was not used in performance of such operator's duties; or that the operator is incompetent to properly perform such operator's duties. If the certificate is revoked and is to be reinstated, the Board shall determine the timing, terms and conditions for reinstatement.
- (9) An operator who receives an order of the Board for the revocation of his/her certificate may appeal the order to the Chancery Court of Davidson County within sixty (60) days.
- (10) An operator whose certificate is revoked for failure to use reasonable care, judgment or the application of operator knowledge in performing the operator's duties or for incompetency shall be ineligible to again apply for certification as an operator for a minimum of one (1) year. An operator whose certificate is revoked for practicing fraud or deception, willfully violating regulations or permit conditions, or falsifying records and reports shall be ineligible to again apply for certification as an operator for a minimum of five years. When an operator whose certificate has been revoked has applied for a certificate after the minimum time has passed, the Board shall determine whether the operator has taken appropriate action to address the circumstances that were the cause of the revocation. The Board may request records and review his/her experience, education, training and past performance. The Board may request the former operator's presence at a meeting of the Board and interview him/her to assess the potential of future violations. After the reviews, the Board shall decide to accept or refuse the application.

Authority: T.C.A. §§ 68-221-901 et seq. and 4-5-201 et seq.

0400-49-01-.12 Civil Penalties.

- (1) The Commissioner may assess the civil penalty authorized by law against a municipality, utility district, corporation, or any person operating a water supply system or a wastewater system if the competency of the person in direct charge of a system facility has not first been certified in accordance with these rules.
- (2) A certified operator may be assessed the civil penalty authorized by law for the same acts and omissions that would constitute grounds for the revocation of his/her certificate by the Board.
- (3) Prior to issuing an order that assess a civil penalty, in accordance with paragraphs (1) and (2) of this rule the Commissioner may hold a show cause meeting with the person or entity to whom the order is proposed to be issued.

Authority: T.C.A. §§ 68-221-901 et seq. and 4-5-201 et seq.

* If a roll-call vote was necessary, the vote by the Agency on these rulemaking hearing rules was as follows:

Board Member	Aye	No	Abstain	Absent	Signature (if required)
Randal L. Braker	X				
Alan C. Cranford	X				<i>Alan C. Cranford</i>
J. Darryl Green	X				<i>J. Darryl Green</i>
Dr. Larry W. Moore				X	
Jennifer Dodd	X				<i>J. Dodd</i>

I certify that this is an accurate and complete copy of rulemaking hearing rules, lawfully promulgated and adopted by the Tennessee Water and Wastewater Operator Certification Board on 04/22/2014, and is in compliance with the provisions of T.C.A. § 4-5-222.

I further certify the following:

Notice of Rulemaking Hearing filed with the Department of State on: 02/14/14

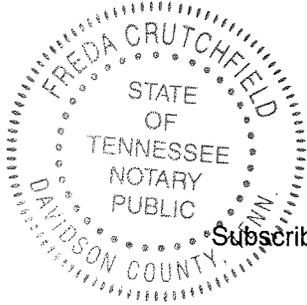
Rulemaking Hearing(s) Conducted on: (add more dates). 04/08/14

Date: April 22, 2014

Signature: *Alan C. Cranford*

Name of Officer: Alan C. Cranford

Title of Officer: Chairman



Subscribed and sworn to before me on: April 22, 2014

Notary Public Signature: *Freda Crutchfield*

My commission expires on: July 23, 2016

All rulemaking hearing rules provided for herein have been examined by the Attorney General and Reporter of the State of Tennessee and are approved as to legality pursuant to the provisions of the Administrative Procedures Act, Tennessee Code Annotated, Title 4, Chapter 5.

Robert E. Cooper, Jr.
 Robert E. Cooper, Jr.
 Attorney General and Reporter
5-19-14
 Date

Department of State Use Only

Filed with the Department of State on: 5/21/14

Effective on: 8/19/14

Tre Hargett
 Tre Hargett
 Secretary of State

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 2014 MAY 21 PM 1:58
 SECRETARY OF STATE

Public Hearing Comments

One copy of a document containing responses to comments made at the public hearing must accompany the filing pursuant to T.C.A. § 4-5-222. Agencies shall include only their responses to public hearing comments, which can be summarized. No letters of inquiry from parties questioning the rule will be accepted. When no comments are received at the public hearing, the agency need only draft a memorandum stating such and include it with the Rulemaking Hearing Rule filing. Minutes of the meeting will not be accepted. Transcripts are not acceptable.

Comment: A commenter stated that the Tennessee Association of Utility Districts (TAUD) supports the proposed changes.

Response: The Tennessee Water and Wastewater Operator Certification Board acknowledges TAUD's support.

Comment: A commenter brought to the division's attention a problem with language for the classification of Small Water Systems. The language as written requires transient systems with over 50 service connections to obtain a Water Treatment 1 and Distribution 1 license or higher.

Health risk associated with transient systems is usually relatively low due to the number of persons served and the relative exposure (i.e., rest areas, country stores, campgrounds do not serve the same people repeatedly and any exposure is generally of short duration). Additionally, if the transient systems are using ground water sources not under the direct influence of surface water the biggest health risk is from low levels of pathogenic organisms that can easily be controlled with disinfection and physical barriers. Neither disinfection nor cartridge filters are considered complex treatment.

Transient Non-Community Water Systems (TNCWS) are overwhelmingly small businesses, usually owner operated, and typically discover that they are a regulated entity after the business has been in operation. They generally do not possess the desire, experience, or technical ability to qualify to sit for advanced licensing tests.

Because the typical TNCWS owner operator will not possess a Water Treatment 1 or Distribution 1 license or higher and because they will not be able to sit for the test(s) for at least one year, they would most likely have to hire a part time contract operator to represent the system and sign MORs. The reality is that the owner operator will still be the person conducting the daily monitoring and maintenance of the system. Money will be spent by an often struggling start up business for someone to simply sign a report.

Water Treatment 1 and Distribution 1 licenses are not reflective of a typical TNCWS structure, which can be as simple as a well with minimal treatment and internal building plumbing supplying water to a kitchen and bathrooms.

Additionally, EPA specifically excluded the transient systems from the requirement for States to establish a classification under the certified operator program. Therefore, TDEC should have some flexibility to modify the rules to account for the special circumstances for TNCWS.

Response: Although EPA has not specifically dictated the training requirement for operators of transient systems, some level of training is required. The board agrees that training is necessary for these systems and that the level of training must be commensurate with the knowledge and skill necessary to protect public health and the environment. Subparagraph (3)(d) of Rule 0400-49-01-.06 has been amended to include transient non-community water systems which have a ground water source not under the direct influence of surface water and serve less than one-hundred (100) service connections as small water systems, provided the system does not use any treatment other than disinfection and/or cartridge filtration. This classification requires operators of these Transient Non-Community Water Systems to receive the correct amount of training and not a greater level of training that is not justified in these cases.

Regulatory Flexibility Addendum

Pursuant to T.C.A. §§ 4-5-401 through 4-5-404, prior to initiating the rule making process as described in T.C.A. § 4-5-202(a)(3) and T.C.A. § 4-5-202(a), all agencies shall conduct a review of whether a proposed rule or rule affects small businesses.

The Water and Wastewater Operator Certification Act (Act) (formally known as the "Water Environmental Health Act"), T.C.A. §§ 68-221-901 et seq., authorizes a system of certification of operators and penalties for non-compliance. The purpose of the Act is to prevent inadequate operation of water and wastewater systems. The Act was amended in 2013 (2013 Tenn. Pub. Acts 362) to change, among other things, the procedure for revocation of an operator's certification. Currently, Rule 1200-05-03-.11 conflicts with the Act as amended. This rulemaking resolves this conflict and outlines a procedure that complies with the Act and the Uniform Administrative Procedures Act, T.C.A. § 4-5-320 Proceedings Affecting Licenses.

This rulemaking also amends the rules to authorize the Board to approve each one semester hour, instead of two semester hours, or one and one half quarter hours, instead of three quarter hours, of academic study satisfactorily completed at an accredited college or university in related science or engineering courses as equal to one month of the operating experience required as a qualification of a certified water treatment plant operator, water distribution system operator and wastewater treatment plant operator. In addition, this rulemaking amends Rule 0400-49-01-.06(3)(d) to include transient non-community water systems which have a ground water source not under the direct influence of surface water and serve less than one-hundred (100) service connections as small water systems, provided the system does not use any treatment other than disinfection and/or cartridge filtration. The board believes that to protect public health and the environment that operators of these transient systems must receive the appropriate level of training. Based on the Department and Board's experience, the level of training required by this amendment, though it is a reduced level, will continue to adequately protect public health and the environment. Prior to this rulemaking, these operators were required to receive a greater level of training.

This rulemaking is also intended to move the rules from Chapter 1200-05-03 to Chapter 0400-49-01, to repeal Chapter 1200-05-06, which is no longer needed, and to edit the document to correct typos and incorrect references.

- (1) The type or types of small business and an identification and estimate of the number of small businesses subject to the proposed rule that would bear the cost of, or directly benefit from the proposed rule.

Public Water Systems and Wastewater Treatment and Collection systems together with Certified Water and Wastewater Operators would be directly affected by this rule.

- (2) The projected reporting, recordkeeping, and other administrative costs required for compliance with the proposed rule, including the type of professional skills necessary for preparation of the report or record.

There are no additional costs associated with this rulemaking.

- (3) A statement of the probable effect on impacted small businesses and consumers.

There is no impact on consumers resulting from this rulemaking. This rulemaking will impact the process that is followed to revoke or suspend a certificate issued to water and wastewater operators and allows the Board to adjust the qualification criteria with regard academic study and job experience, and bring regulatory relief to owners and operators of transient non-community water systems which have a ground water source not under the direct influence of surface water and serve less than one-hundred (100) service connections as small water systems, provided the system does not use any treatment other than disinfection and/or cartridge filtration.

- (4) A description of any less burdensome, less intrusive or less costly alternative methods of achieving the purpose and objectives of the proposed rule that may exist, and to what extent the alternative means might be less burdensome to small business.

There are no alternative methods available.

- (5) A comparison of the proposed rule with any federal or state counterparts.

Federal law does not specify the training required for operators of transient systems, but does require the states to establish an appropriate training program.

- (6) Analysis of the effect of the possible exemption of small businesses from all or any part of the requirements contained in the proposed rule.

To accomplish the goal of this rulemaking an exemption of small businesses is not possible.

Impact on Local Governments

Pursuant to T.C.A. §§ 4-5-220 and 4-5-228 "any rule proposed to be promulgated shall state in a simple declarative sentence, without additional comments on the merits of the policy of the rules or regulation, whether the rule or regulation may have a projected impact on local governments." (See Public Chapter Number 1070 (<http://state.tn.us/sos/acts/106/pub/pc1070.pdf>) of the 2010 Session of the General Assembly)

The Department anticipates that this rulemaking will have an impact on local governments.

Additional Information Required by Joint Government Operations Committee

All agencies, upon filing a rule, must also submit the following pursuant to T.C.A. § 4-5-226(i)(1).

- (A) A brief summary of the rule and a description of all relevant changes in previous regulations effectuated by such rule;

The Water and Wastewater Operator Certification Act (Act) (formally known as the "Water Environmental Health Act"), T.C.A. §§ 68-221-901 et seq., authorizes a system of certification of operators and penalties for non-compliance. The purpose of the Act is to prevent inadequate operation of water and wastewater systems. The Act was amended in 2013 (2013 Tenn. Pub. Acts 362) to change, among other things, the procedure for revocation of an operator's certification. Currently, Rule 1200-05-03-.11 conflicts with the Act as amended. This rulemaking resolves this conflict and outlines a procedure that complies with the Act and the Uniform Administrative Procedures Act, T.C.A. § 4-5-320 Proceedings Affecting Licenses.

This rulemaking also amends the rules to authorize the Board to approve each one semester hour, instead of two semester hours, or one and one half quarter hours, instead of three quarter hours, of academic study satisfactorily completed at an accredited college or university in related science or engineering courses as equal to one month of the operating experience required as a qualification of a certified water treatment plant operator, water distribution system operator and wastewater treatment plant operator. In addition, this rulemaking amends Rule 0400-49-01-.06(3)(d) to include transient non-community water systems which have a ground water source not under the direct influence of surface water and serve less than one-hundred (100) service connections as small water systems, provided the system does not use any treatment other than disinfection and/or cartridge filtration. The board believes that to protect public health and the environment that operators of these transient systems must receive the appropriate level of training. Based on the Department and Board's experience, the level of training required by this amendment, though it is a reduced level, will continue to adequately protect public health and the environment. Prior to this rulemaking, these operators were required to receive a greater level of training.

This rulemaking is also intended to move the rules from Chapter 1200-05-03 to Chapter 0400-49-01, to repeal Chapter 1200-05-06, which is no longer needed, and to edit the document to correct typos and incorrect references.

- (B) A citation to and brief description of any federal law or regulation or any state law or regulation mandating promulgation of such rule or establishing guidelines relevant thereto;

This rulemaking is being promulgated under the authority of T.C.A. §§ 68-221-901 et seq., 68-203-101 et seq. and 4-5-201 et seq.

- (C) Identification of persons, organizations, corporations or governmental entities most directly affected by this rule, and whether those persons, organizations, corporations or governmental entities urge adoption or rejection of this rule;

Public Water Systems and Wastewater Treatment and Collection systems together with Certified Water and Wastewater Operators would be directly affected by this rule. TAUD supports the adoption of these proposed rules.

- (D) Identification of any opinions of the attorney general and reporter or any judicial ruling that directly relates to the rule;

The Department is not aware of any.

- (E) An estimate of the probable increase or decrease in state and local government revenues and expenditures, if any, resulting from the promulgation of this rule, and assumptions and reasoning upon which the estimate is based. An agency shall not state that the fiscal impact is minimal if the fiscal impact is more than two percent (2%) of the agency's annual budget or five hundred thousand dollars (\$500,000), whichever is less;

This rulemaking will have no fiscal impact on state and local governments.

- (F) Identification of the appropriate agency representative or representatives, possessing substantial knowledge and understanding of the rule;

Sherry Messick
J. R. Fleming Environmental Training Center
2022 Blanton Drive
Murfreesboro, TN 37129
(615) 898-8090

- (G) Identification of the appropriate agency representative or representatives who will explain the rule at a scheduled meeting of the committees;

Jenny Howard
Deputy General Counsel
Office of General Counsel

- (H) Office address, telephone number, and email address of the agency representative or representatives who will explain the rule at a scheduled meeting of the committees; and

Office of General Counsel
Tennessee Department of Environment and Conservation
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 2nd Floor
Nashville, Tennessee 37243
(615) 532-8685
Jenny.Howard@tn.gov

- (I) Any additional information relevant to the rule proposed for continuation that the committee requests.

The Department is not aware of any additional relevant information.

**Department of State
Division of Publications**

312 Rosa L. Parks Avenue, 8th Floor Snodgrass/TN Tower
Nashville, TN 37243
Phone: 615-741-2650
Fax: 615-741-5133
Email: register.information@tn.gov

For Department of State Use Only

Sequence Number: _____
Rule ID(s): _____
File Date: _____
Effective Date: _____

Rulemaking Hearing Rule(s) Filing Form

Rulemaking Hearing Rules are rules filed after and as a result of a rulemaking hearing. T.C.A. § 4-5-205

Agency/Board/Commission:	Environment and Conservation
Division:	Water Resources
Contact Person:	Sherry Messick
Address:	J. R. Fleming Environmental Training Center 2022 Blanton Drive Murfreesboro, Tennessee
Zip:	37129
Phone:	(615) 898-8090
Email:	Sherry.Messick@tn.gov

Revision Type (check all that apply):

- Amendment
 New
 Repeal

Rule(s) Revised (ALL chapters and rules contained in filing must be listed here. If needed, copy and paste additional tables to accommodate multiple chapters. Please enter only ONE Rule Number/Rule Title per row)

Chapter Number	Chapter Title
0400-49-01	Rules Governing Water and Wastewater Operator Certification
Rule Number	Rule Title
0400-49-01-.01	Application for Certificate
0400-49-01-.02	Examinations
0400-49-01-.03	Fees
0400-49-01-.04	General
0400-49-01-.05	Definitions
0400-49-01-.06	Classifications of Water Treatment Plants and Water Distribution Systems
0400-49-01-.07	Classifications and Qualifications of Water Treatment Plant Operators and Water Distribution System Operators
0400-49-01-.08	Classification of Wastewater Treatment Plants and Wastewater Collection Systems
0400-49-01-.09	Classifications and Qualifications of Wastewater Treatment Plant Operators and Wastewater Collection System Operators
0400-49-01-.10	Continuing Education
0400-49-01-.11	Summary Suspension and Revocation of Certificate
0400-49-01-.12	Civil Penalties

Chapter Number	Chapter Title
1200-05-03	Rules Governing Water and Wastewater Operator Certification
Rule Number	Rule Title
1200-05-03-.01	Application for Certificate
1200-05-03-.02	Examinations

1200-05-03-.03	Fees
1200-05-03-.04	General
1200-05-03-.05	Definitions
1200-05-03-.06	Classifications of Water Treatment Plants and Water Distribution Systems
1200-05-03-.07	Classifications and Qualifications of Water Treatment Plant Operators and Water Distribution System Operators
1200-05-03-.08	Classification of Wastewater Treatment Plants and Wastewater Collection Systems
1200-05-03-.09	Classifications and Qualifications of Wastewater Treatment Plant Operators and Wastewater Collection System Operators
1200-05-03-.10	Continuing Education
1200-05-03-.11	Revocation of Certificate
1200-05-03-.12	Civil Penalties
1200-05-03-.13	Repealed

Chapter Number	Chapter Title
1200-05-06	Rules of Procedure for Hearing Contested Cases before the Water and Wastewater Operations Board of Certification

(Place substance of rules and other info here. Statutory authority must be given for each rule change. For information on formatting rules go to <http://state.tn.us/sos/rules/1360/1360.htm>)

Repeals

Chapter 1200-05-03 Rules Governing Water and Wastewater Operator Certification is repealed.

Authority: T.C.A. §§ 68-221-901 et seq. and 4-5-201 et seq.

Chapter 1200-05-06 Rules of Procedure for Hearing Contested Cases before the Water and Wastewater Operations Board of Certification is repealed.

Authority: T.C.A. § 68-221-901 et seq. and 4-5-201 et seq.

New Rules

Chapter 0400-49-01 Rules Governing Water and Wastewater Operator Certification

Table of Contents

0400-49-01-.01	Application for Certificate	0400-49-01-.08	Classification of Wastewater Treatment Plants and Wastewater Collection Systems
0400-49-01-.02	Examinations		
0400-49-01-.03	Fees		
0400-49-01-.04	General	0400-49-01-.09	Classifications and Qualifications of Wastewater Treatment Plant Operators and Wastewater Collection System Operators
0400-49-01-.05	Definitions		
0400-49-01-.06	Classifications of Water Treatment Plants and Water Distribution Systems		
0400-49-01-.07	Classifications and Qualifications of Water Treatment Plant Operators and Water Distribution System Operators	0400-49-01-.10	Continuing Education
		0400-49-01-.11	<u>Summary Suspension and Revocation of Certificate</u>
		0400-49-01-.12	Civil Penalties

~~1200-05-03-.04~~ 0400-49-01-.01 Application for Certificate.

(1) Application for certification by examination.

- (a) A separate application for each certification shall be made on an original form approved by the Board for that purpose and available upon request from the Secretary of the Board.
- (b) An application for certification must be submitted to the Secretary of the Board and include the following items:
1. A sworn and notarized application signed by the applicant.
 2. Payment of a non-refundable \$100.00 fee for each application for examination.
 3. A copy of any verifying document in support of an application must be submitted with the application unless the applicant has previously provided such documentation to the Secretary of the Board. This includes, but is not limited to, proof of high school education or equivalent of the applicant. College transcripts, if needed to document experience credit, must be submitted directly from the college and/or university to the Secretary to the Board. Credit for enrollment in special training courses and programs will only be granted to an applicant upon verification that he/she satisfactorily completed all course or program requirements. If training credit is requested, a copy of a course attendance card, a class roster, or a certificate of completion must be submitted to the Secretary. Verification of work experience must be provided in a written document signed by a certified operator of a similar or higher classification, familiar with the applicant's work experience. However, if no such person is available, it may be documented by a person

in authority with the system. The Board may exempt applicants from the verification of work experience requirement where there are unusual circumstances.

- (c) A complete application must be received by the Secretary sixty (60) days or more in advance of the scheduled examination date for consideration. Applications received less than sixty (60) days prior to an examination date will be reviewed for the next examination. Upon written request by an applicant, the Board may choose to review, at the next Board meeting, a late exam application where extenuating circumstances contribute to the delay.
 - (d) Applications will be reviewed for completeness and for compliance with the requirements of Rules ~~1200-05-03-07~~ 0400-49-01-07 and ~~1200-05-03-09~~ 0400-49-01-09 for education and experience by staff of the Board under the supervision of the Secretary. The operating experience of an applicant will be determined through the end of the month in which the examination for the operator classification desired is given.
 - 1. Applications which are not complete or which provide inadequate information to allow a reasonable judgment of experience and/or education shall either be returned to the applicant by the Secretary for amendment or the Secretary may request additional information from the applicant. Upon notification of a deficiency in an application by the Secretary, the applicant shall have ten (10) days or up to the Board meeting date, whichever date comes first, to submit the required information. If an amendment to the application is not received by the aforementioned date, the application will be denied, and the applicant must submit a new application and fees for further consideration.
 - 2. The staff of the Board under the supervision of the Secretary shall make a recommendation to approve, disapprove, or refer to the Board each applicant with a complete application.
 - 3. Upon consideration of the recommendation of the Secretary and after any evaluation considered desirable by the Board, the Board shall act to approve or disapprove all applicants with complete applications.
 - 4. If an application for examination is denied, the applicant must submit a new application with fees for consideration for any future examination.
- (2) Application for certification by reciprocity.
- (a) A separate application for each certification shall be made on an original form approved by the Board for that purpose and available upon request from the Secretary of the Board.
 - (b) An application for certification must be submitted to the Secretary of the Board and include the following items:
 - 1. A sworn and notarized application signed by the applicant.
 - 2. Payment of a non-refundable \$100-~~00~~ for each application for reciprocity.
 - 3. A copy of any verifying document in support of an application must be submitted with the application unless the applicant has previously provided such documentation to the Secretary of the Board. This includes, but is not limited to, proof of high school education or equivalent of the applicant. College transcripts, if needed to document experience credit, must be submitted directly from the college and/or university to the Secretary to the Board. Credit for enrollment in special training courses and programs will only be granted to an applicant upon verification that he/she satisfactorily completed all course or program requirements. If training credit is requested, a copy of a course attendance card, a class roster, or a certificate of completion must be submitted to the Secretary.
 - (c) A complete application must be received by the Secretary sixty (60) days or more in advance of the scheduled Board meeting date for consideration. Applications received less than sixty (60) days prior to the Board meeting date will be reviewed at the next Board meeting. Upon written

request by an applicant, the Board may choose to review a late reciprocity application where extenuating circumstances occur.

(d) Applications will be reviewed for completeness and for compliance with the requirements of Rules ~~4200-05-03-.07~~ 0400-49-01-.07 and ~~4200-05-03-.09~~ 0400-49-01-.09 for education and experience by staff of the Board under the supervision of the Secretary.

1. Applications which are not complete or which provide inadequate information to allow a reasonable judgment of experience and/or education shall either be returned to the applicant by the Secretary for amendment or the Secretary may request additional information from the applicant. Upon notification of a deficiency in an application by the Secretary, the applicant shall have ten (10) days or up to the Board meeting date, whichever date comes first, to submit the deficient information. If an amendment to the application is not received by the aforementioned date, the application will be denied, and the applicant must submit a new application with fees for further consideration.
2. Verification of certification from the reciprocating state must be received before staff of the Board can make a recommendation and before the application can be offered to the Board for review.
3. The staff of the Board under the supervision of the Secretary shall make a recommendation to approve, disapprove, or refer to the Board each applicant with a complete application.
4. Upon consideration of the recommendation of the Secretary and after any evaluation considered desirable by the Board, the Board shall act to approve or disapprove all applicants with complete applications.
5. If an application for reciprocity is denied, the applicant must submit a new application with fees for consideration for any future reciprocity requests.

Authority: T.C.A. §§ 68-221-901 et seq. and 4-5-201 et seq.

~~4200-05-03-.02~~ 0400-49-01-.02 Examinations.

- (1) All examinations shall be written except that the Board may approve alternate examination methods if an applicant has a disability which would prevent him/her from taking a written examination.
- (2) All examinations shall be taken by the applicant without the assistance of course text materials, student notes, computer stored materials, or other materials.
- (3) The examination may contain one or more of the following type questions: matching, multiple choice, true-false, discussion, short answer, and problems.
- (4) An applicant who correctly scores at least seventy percent (70%) on a written examination, and who is otherwise eligible, shall receive a certificate of competency.
- (5) An applicant shall be notified in writing whether his/her examination score was satisfactory for the issuance of a certificate.
- (6) An applicant who fails to achieve a satisfactory score may reapply for the next examination by submitting an abbreviated application for examination with fees, but he/she shall not be eligible to take another examination for the particular operator classification which he/she failed until five months have elapsed from the date that examination was taken.
- (7) All examinations shall be administered by the Board or its authorized representatives who are empowered to maintain the integrity of all examinations.
- (8) (a) An applicant shall be guilty of cheating upon a written examination who does an act including, but not limited to, the following:

1. violates paragraph (2) of this rule; or
 2. without express authorization from examination officials,
 - (i) removes examination materials furnished by the Board or the written examination itself, in whole or in part, from the examination room, or
 - (ii) aids another applicant in answering examination questions during a written examination; or
 3. violates the examination rules.
- (b) Upon a determination by the Commissioner that an applicant is guilty of cheating upon a written examination for a particular operator classification, the applicant shall not be issued an initial certificate of competency for that classification.
- (c) An applicant shall be ineligible to again apply for certification in that same operator classification for one year from the date the determination of cheating becomes final.

Authority: T.C.A. §§ 68-221-901 et seq. and 4-5-201 et seq.

~~1200-05-03-.03~~ 0400-49-01-.03 Fees.

(1) Fees for Certification

(a) Fees for certification shall be required of each applicant and paid in advance as follows:

1. Application fee for each operator examination or reciprocity request applied for..... \$100.00
2. Discount annual renewal fee for each operator certificate:
(Payment prior to February 1)..... \$30.00
3. Standard annual renewal fee for each operator certificate:
(Payment from February 1 through June 30.)..... \$60.00

(b) No application fee will be returned.

(c) Upon payment of an application fee and approval by the Board, an applicant may take any one scheduled examination during the following twelve (12) months. If an applicant chooses not to take or fails to appear for, the first examination offered after receiving approval, the applicant must register on a form approved by the Board to be scheduled for a subsequent exam within the established time. The registration must occur sixty (60) days in advance of the examination he/she wishes to take. If an applicant does not take the examination within twelve (12) months of the Board's approval, he/she must reapply by submitting a new application with fees in order to be considered to take a subsequent examination.

(d) Each year a certified operator shall submit to the Board for the following year a completed certificate renewal application and a fee for the renewal of each operator certificate he/she possesses. Applications received prior to February 1 of each year shall be subject to discount renewal fees. Applications received February 1 through June 30 of each year shall be subject to standard renewal fees. Any person failing to meet the June 30 deadline may, within sixty (60) days of the deadline, request that the Board grant a variance. A variance may be granted when the delay was caused by Board or staff error, Board action, or documented postal error. A completed certificate renewal application or appropriate annual renewal fee for an expired certificate not received by the Board by June 30 shall preclude the recertification of the operator in his/her expired classification until he/she shall have fulfilled all the requirements for the issuance of an initial certificate in that classification, including the satisfactory completion of a

written examination. When an operator classification is upgraded, the certificate he/she was upgraded from becomes void; and no additional fee payment is necessary until renewal.

(2) Fees for Cross Connection Control Training Registration

(a) Fees for Cross Connection Control Training registration shall be required of each person and paid in advance as follows:

1. Registration fee for a Cross Connection Control Basic Class (full time employees of public water systems as defined in T.C.A. § 68-221-703 and Department employees who assist with cross connection control training or testing classes are exempt) ~~\$275.00~~
2. Registration fee for a Cross Connection Control Renewal Class (full time employees of public water systems as defined in T.C.A. § 68-221-703 and Department employees who assist with cross connection control training or testing classes are exempt) ~~\$110.00~~

(b) No registration fee will be returned.

(c) The registration fee must be received thirty (30) days in advance of the class he/she wishes to take.

(3) Fees for Cross Connection Control Testing Application

(a) Fees for Cross Connection Control Testing Application shall be required of each person and paid in advance as follows:

1. Application for a Cross Connection ~~e~~Control Basic Test (Department employees who assist with cross connection control training or testing are exempt) ~~\$60.00~~
2. Application fee for Cross Connection Control Renewal Test (Department employees who assist with cross connection control training or testing are exempt) ~~\$60.00~~

(b) Application fees are not refundable or transferable.

(c) The application for testing conducted by the Department must be received a minimum of thirty (30) days in advance of the test he/she wishes to take, however, applications from private institutions may be received the day the test materials are submitted to the Fleming Training Center.

(d) Prior to sitting for a test, an applicant must present proof of completion of training accepted by the Department for the appropriate test. Basic training may be accepted by the Department if it has a minimum class length of 480 minutes (300 minutes minimum in classroom), including but not limited to the following topics: hydraulic and backflow principles, theory of backflow and cross connection, codes and regulations of a cross connection control program, responsibilities and actions in a cross connection control program and mechanical equipment for cross connection control. Acceptable training must also provide a minimum of one working practice station and test kit for each three students. Renewal training may be accepted by the Department if it has a minimum class length of 300 minutes (180 minutes minimum in classroom) including but not limited to the following topics: hydraulic and backflow principles, theory of backflow and cross connection, codes and regulations of a cross connection control program, responsibilities and actions in a cross connection control program and mechanical equipment for cross connection control. Acceptable training must also provide a minimum of one working station and test kit for each three students.

(e) An applicant must take the test within twelve (12) months of receipt of the training certificate.

Authority: T.C.A. §§ 68-203-101 et seq., 68-221-901 et seq. and 4-5-201 et seq.

~~1200-05-03-.04~~ 0400-49-01-.04 General.

- (1) Certification under ~~Tennessee Code Annotated T.C.A. §§ 68-221-901 et seq.~~, being the "Water Environmental Health and Wastewater Operator Certification Act," is available to any operator of a water treatment plant, a wastewater treatment plant, a water distribution system, or a wastewater collection system who meets the minimum qualifications of a given classification.
- (2) Each person in direct charge at a water treatment plant, a wastewater treatment plant, a water distribution system, or a wastewater collection system shall hold a certificate in a grade equal to or higher than the grade of the treatment plant, distribution system, or collection system he/she operates. The grade of a facility will be established by the criteria set forth in this chapter of rules.
- (3) All operating personnel making process control/system integrity decisions about water quality or quantity that affect public health must be certified. A designated certified operator must be available for each operating shift.
- (4) Each water supply system and wastewater system required to have a certified operator shall, no later than the first day of August annually, inform the Board, through its designated ~~agents~~ agent, the Division of Water Supply Resources for water and distribution operators and the Division of Water Pollution Control for wastewater and collection operators, in writing of the name of each person who is a certified operator in direct charge of any water treatment plant, wastewater treatment plant, water distribution system or wastewater collection system it operates. A system shall notify the Division of Water Supply Resources for water treatment plant and distribution system operators and the Division of Water Pollution Control for wastewater treatment plant and collection system operators in writing within thirty (30) days of its loss of the services of a certified operator in direct charge.
- (5) A certified operator shall be responsible for keeping the Board Secretary informed of his/her current address.

Authority: T.C.A. §§ 68-221-901 et seq. and 4-5-201 et seq.

~~4200-05-03-.05~~ 0400-49-01-.05 Definitions.

- (1) "Available" means that a certified operator must be on site or able to be contacted as needed to initiate the appropriate action in a timely manner, based on system size, complexity and the quality of either the source water or the receiving stream.
- (2) "Board" means the board of certification as described in T.C.A. § 68-221-905.
- (3) "Commissioner" and "Department" mean the Commissioner of the Tennessee Department of Environment and Conservation ~~of the State of Tennessee~~ or his/her duly authorized representative.
- (4) "Operating Shift" is that period of time during which operator decisions that affect public health are necessary for proper operation of the system.
- (5) "Process control/system integrity decisions" means decisions regarding the manipulation of equipment, chemicals or processes that determine the quality and quantity of the water supplied by a water treatment plant or a water distribution system, or the quality of the effluent from a wastewater treatment plant or the integrity of a wastewater collection system.
- (6) "Person in direct charge" as used in these rules means the person or persons expressly designated to be in direct charge and so named in writing to the Board's authorized representative by each water supply system and wastewater system, whose decisions and directions to system personnel control the manipulation of equipment and thereby determine the quality and quantity of the water supplied by a water treatment plant or a water distribution system, or the quality of the effluent from a wastewater treatment plant or the integrity of a wastewater collection system.

Authority: T.C.A. §§ 68-221-901 et seq. and 4-5-201 et seq.

~~4200-05-03-.06~~ 0400-49-01-.06 Classification of Water Treatment Plants and Water Distribution Systems.

- (1) Water treatment plants shall be classified by the Board or its authorized representative into one of five groups, designated either as Small Water, Grade I, II, III, or IV. These classifications shall be made according to the number of population served, the type of treatment plant, and the complexity of treatment required for a particular water.
- (2) The classification of a water treatment plant or a water distribution system may be changed by the Board or its authorized representative because of changes in the conditions or the circumstances upon which the original classification was based. Notice of such a classification change shall be given to the management officers of the plant or system.
- (3) Types of Water Systems:
 - (a) Water Treatment. A water treatment plant using filtration, iron removal, and/or lime-soda softening processes or requiring chemical or bacteriological control of operation will be classified in accordance with the following point totals:

Grade IV	61 or more points
Grade III	35 to 60 points
Grade II	16 to 34 points
Grade I	15 or less points

Point totals for plant classification shall be computed in accordance with the following rating value criteria:

Rating Value
Points

Design Flow - For every one million gallons per day design capacity, or fraction thereof, a plant will be awarded a rating value of:1 pt.

Water Supply Source - Based upon the type and quality of the raw water source, a plant will be awarded rating values of:

Groundwater	3 pts.
Ground water under the direct influence of surface water.....	5 pts.
Surface water.....	5 pts.
Average raw water quality.....	0-10 pts.*

Treatment Process - A plant employing any of the following treatment processes will be awarded rating values of:

Aeration	4 pts.
Presettling	2 pts.
Flash mix	2 pts.
Coagulation.....	6 pts.
Flocculation	5 pts.
Settling	5 pts.
Upflow Solids Contact	8 pts.
Lime softening	5 pts.
Gravity Filtration	
slow sand	2 pts.
rapid	6 pts.
Pressure Filtration	3 pts.
Recarbonation	3 pts.
Membrane Filtration	20 pts.
Activated alumina	10 pts.
Ion Exchange	5 pts.

Chemical Treatment - A plant utilizing any of the following chemicals or chemical treatment processes will be awarded rating values of:

Fluoridation	3 pts.	
Disinfection		
Gaseous chlorine	5 pts.	
Liquid or powdered chlorine	3 pts.	
Chlorine dioxide	7 pts.	
Ozonization (on-site generation)	10 pts.	
On-site generation of Chlorine	5 pts.	
Mixed Oxidants	7 pts.	
UV Light	3 pts.	
Taste and Odor Control		
Peroxide	3 pts.	
Potassium Permanganate	2 pts.	
Powdered activated carbon	4 pts.	
Activated carbon columns	6 pts.	
Activated carbon slurry	8 pts.	
Chemical Stabilization (polyphosphate, Soda Ash, etc.)		4 pts.
Laboratory Control by Plant Personnel - Based upon the type and the difficulty of the laboratory work performed at a plant, a plant will be awarded rating values of:		
Bacteriological	0-10 pts.*	
Chemical	0-10 pts.*	
Total Points **		

* See Table 1

** If a rating value points total would not accurately reflect special conditions at a plant and a material distortion in its rating would occur, the Board will establish the classification of the plant after a review of its special conditions.

Table 1

*Average Raw Water Quality - Points are assigned to a plant as follows:

Raw water quality varies enough to require treatment process changes less than thirty-six (36) days each calendar year	2 pts.
Raw water quality varies enough to require treatment process changes thirty-six (36) days or more each calendar year	5 pts.
Raw water quality varies enough to require treatment process changes due to existing industrial waste pollution sources	10 pts.

*Laboratory Control by Plant Personnel (Bacteriological) - Points are assigned in accordance with the type of laboratory control performed at the plant:

Lab work done outside of plant	0 pts.
Enzyme Substrate Method	4 pts.
Membrane filter procedure	5 pts.
Fermentation tubes or any dilution method	7 pts.
Biological identification	10 pts.

*Laboratory Control by Plant Personnel (Chemical) - Points are assigned in accordance with the type of laboratory control performed at the plant:

Lab work done outside the plant	0 pts.
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Colorimetric methods for simple tests such as chlorine, pH	3 pts.
Procedures such as titration, jar tests	5 pts.
More advanced determinations including inorganics	7 pts.
Highly sophisticated instrumentation such as atomic absorption and gas chromatography	10 pts.

- (b) Grade I Distribution. This classification is for a water distribution system that serves at least fifty (50) service connections but no more than five thousand (5,000) service connections. This classification serves as a certificate to operate a small water system.
- (c) Grade II Distribution. This classification is for a water distribution system that serves more than five thousand (5,000) service connections. This classification serves as a certificate to operate a small water system.
- (d) Small Water Systems. This classification includes:
 - 1. all All community and non-transient non-community water systems which have a ground water source not under the direct influence of surface water and serve less than fifty (50) service connections, provided the system does not use any treatment other than disinfection, and those systems which purchase water for resale and serve less than fifty (50) service connections; and
 - 2. Transient non-community water systems which have a ground water source not under the direct influence of surface water and serve less than one-hundred (100) service connections, provided the system does not use any treatment other than disinfection and/or cartridge filtration.

This classification serves as a distribution system certification for those systems meeting the definition of a small water system.

Authority: T.C.A. §§ 68-221-901 et seq. and 4-5-201 et seq.

~~4200-05-03-.07~~ 0400-49-01-.07 Classifications and Qualifications of Water Treatment Plant Operators and Water Distribution System Operators.

- (1) (a) Grade IV Water Treatment Plant Operator - Certification as an operator in this classification will be made only upon the satisfactory completion by the applicant of the requirements of either subparagraph part ~~(1)(a)1~~ or ~~(1)(a)2~~ of this rule subparagraph.
 - 1. An applicant must have a bachelor degree in engineering, chemistry or a related science from an accredited college or university, must have twelve (12) months of operating experience at a Grade III or a Grade IV Water Treatment plant, and must satisfactorily complete a written examination.
 - 2. An applicant must have a high school education or equivalent, must have sixty (60) months of operating experience at a Grade III or a Grade IV Water Treatment plant, and must satisfactorily complete a written examination. Within the discretion of the Board, college course work in related science or engineering courses satisfactorily completed or Board sanctioned comprehensive training in chemistry, bacteriology, and the fundamentals of water treatment satisfactorily completed through schools for operators, correspondence courses, or other special training may be credited toward the required operating experience to a maximum equivalency of thirty-six (36) months.
 - 3. To receive full time operating experience credit, a minimum of 100% of the activities must be work experience duties. The Board reserves the right to adjust calendar months of experience to a reduced number of months of experience where it is obvious that an applicant's experience routinely includes other duties. The Board encourages documented apprenticeship training programs and classroom training provided by the employer to better prepare an operator to make decisions in plant operation to assure public health protection.

(b) Grade III Water Treatment Plant Operator

1. An applicant must have a high school education or equivalent, must have twelve (12) months of operating experience at a Grade III water treatment plant or twelve (12) months at a Grade II and six months at a Grade III, and must satisfactorily complete a written examination. Board sanctioned comprehensive training in chemistry, bacteriology, and the fundamentals of water treatment satisfactorily completed through schools for operators, correspondence courses, or other special training programs may be credited toward the required operating experience to a maximum equivalency of three (3) months.
2. To receive full time operating experience credit, a minimum of 50% of the activities must be work experience duties.

(c) Grade II Water Treatment Plant Operator

1. An applicant must have a high school education or equivalent, must have twelve (12) months of operating experience at a Grade I or a Grade II Water Treatment plant, and must satisfactorily complete a written examination. Board sanctioned comprehensive training in chemistry, bacteriology, and the fundamentals of water treatment satisfactorily completed through schools for operators, correspondence courses, or other special training programs may be credited toward the required operating experience to a maximum equivalency of three (3) months.
2. To receive full time operating experience credit, a minimum of 33% of the activities must be work experience duties.

(d) Grade I Water Treatment Plant Operator

1. An applicant must have a high school education or equivalent, must have twelve (12) months of operating experience at a Grade I water treatment plant or a small water system, and must satisfactorily complete a written examination. Board sanctioned comprehensive training in chemistry, bacteriology, and the fundamentals of water treatment satisfactorily completed through schools for operators, correspondence courses, or other special training programs may be credited toward the required operating experience to a maximum equivalency of three (3) months.
2. To receive full time operating experience credit, a minimum of 33% of the activities must be work experience duties.

(e) Small Water System Operator - An applicant must have a high school education or equivalent, and must have three (3) months of experience in a water system classified as a "small water system" and must satisfactorily complete a written examination.

(f) Grades I & II Water Distribution System Operator

1. An applicant must have a high school education or equivalent, must have twelve (12) months of operating experience at a water distribution system, and must satisfactorily complete a written examination. Board sanctioned comprehensive training including installation, operation, maintenance and repair of distribution systems, satisfactorily completed through schools for operators, correspondence courses, or other special training programs may be credited toward the required operating experience to a maximum equivalency of three (3) months.
2. To receive full time operating experience credit, a minimum of 50% of the activities must be work experience duties.

(2) Initial Reclassifications under Resulting from Amendments to this Chapter of Rules

- (a) The reclassification of a water treatment plant or a water distribution system that immediately occurs as a result of amendments to this chapter of rules shall not reduce the operator classification of a certified operator then employed at that plant or system to a lower operator classification.
 - (b) The reclassification of a water treatment plant or a water distribution system that immediately occurs as a result of amendments to this chapter of rules shall raise the operator classification of a certified operator then employed at that plant or system to a higher operator classification equivalent with the new classification of the plant or system. This subparagraph shall apply only to a certified operator whose operator classification, immediately prior to reclassification of the plant or system pursuant to amendments to this chapter of rules, is at least equivalent with the classification of the plant or system at which he/she is employed.
 - (c) An applicant for examination who is employed at a water treatment plant or a water distribution system that has been reclassified by the Department and certified at the appropriate level may have his/her experience at the facility applied at a rate equal to the level of the reclassified facility.
 - (d) An operator classification authorized under prior rules that is eliminated upon amendments to this chapter of rules becoming effective shall be reclassified to the highest comparable operator classification authorized under these rules.
 - (e) An operator's classification may be changed by the Board if the operator is employed at a water plant or distribution system that has been incorrectly classified by the Department for one year or more. The operator must hold a valid certificate equal to the incorrect plant or system classification and must have applied for and achieved the certificate based on the incorrect classification.
- (3) Operating Experience Credit for Approved Study
- (a) For part (1)(a)2 of this rule, the Board may approve for each ~~two~~ one (1) semester ~~hours~~ hour, or ~~three~~ one and one half (1½) quarter hours, of academic study satisfactorily completed at an accredited college or university in related science or engineering courses as equal to one month of the operating experience required as a qualification of a certified water treatment plant operator.
 - (b) For parts (1)(a)2, (1)(b)1, (1)(c)1, (1)(d)1, and (1)(f)1 of this rule, each day of Board sanctioned comprehensive training, satisfactorily completed, through schools for operators, correspondence courses, or other special training programs may be equal to one month of the operating experience required as a qualification of a certified water treatment plant operator.
- (4) Work Experience
- (a) The Board may approve the water treatment operating experience required in parts (1)(a)1, (1)(a)2, (1)(b)1, (1)(c)1, and (1)(d)1 of this rule in two (2) or more of the following work experience duties:
 - Operation and/or maintenance of:
 - Pretreatment systems
 - Coagulant feed systems
 - Filtration systems
 - Fluoride feed systems
 - Stabilization feed systems
 - Hypochlorination systems
 - Gas chlorination systems
 - Pumps and/or motors
 - Laboratory Control Tests
 - Interpretation and plant adjustments

- (b) An operator applying for a Grade IV water treatment system certification may be granted partial credit by the Board for up to sixty percent (60%) of any approved operating experience obtained in a wastewater system.
- (c) The Board may approve the distribution system operating experience required in part (1)(f)1 of this rule in two or more of the following work experience duties:

Operation and/or maintenance of:

- Pumps
- Booster stations
- Fire hydrants
- Valves
- Storage tanks
- Distribution system flushing
- Pipeline installation
- Tap installation
- Leak detection
- Leak repairs
- Cross connection control

(5) Summary of Water Treatment Plant and Distribution System Operator Education and Experience Requirements

Water Treatment Plant Operators

Classification	Experience			Maximum Training or College Classwork Substitution	Maximum Related Work Substitution
	Experience needed with:	HS Education	BS Degree		
Grade IV	Gained at a Grade III or IV Water Plant	*60 months	12 Months	36 Months	36 Months
*Regardless of the substitution allowances, a minimum of 1 year of actual work experience is required					
Grade III	Gained at a Grade III Water Plant	12 Months		3 Months	
	Gained at a Grade II and Gained at a Grade III	12 Months 6 Months		3 Months	
Grade II	Gained at a Grade I or II Water Plant	12 Months		3 Months	
Grade I	Gained at a Grade I Water Plant or SWS	12 Months		3 Months	
Grade SWS	Gained at a Small Water System (SWS)	3 Months			

Distribution System Operators

Classification	Experience		Maximum Training or College Classwork Substitution	Maximum Related Work Substitution
	Experience needed with:	HS Education		
Grade II	Gained at a Distribution I or II System	12 Months	3 Months	
Grade I	Gained at a Distribution I or II System	12 Months	3 Months	

Authority: T.C.A. §§ 68-221-901 et seq. and 4-5-201 et seq.

4200-05-03-.08 0400-49-01-.08 Classification of Wastewater Treatment Plants and Wastewater Collection Systems.

- (1) Wastewater treatment plants shall be classified by the Board or its authorized representative into one of five groups, designated either as Biological/Natural, Grade I, II, III, or IV. These classifications shall be made in accordance with the point total scheme below which takes into account the design flow of the plant, its type of unit processes, its character, and the volume of wastewater it treats.
- (2) The term "collection system" means a system for the collection and transmission of wastewater to a treatment plant.
- (3) The classification of a wastewater treatment plant or a wastewater collection system may be changed by the Board or its authorized representative because of changes in the conditions or the circumstances upon which the original classification was based. Notice of such a classification change shall be given to the management officers of the plant or system.

(4) Types of Wastewater Systems:

- (a) A wastewater treatment plant, except Biological/Natural, will be classified either as Grade I, II, III or IV in accordance with the following point totals:

Grade IV	76 or more points
Grade III	56 to 75 points
Grade II	55 points or less
Grade I.....	This classification is for a wastewater treatment plant with a capacity of seventy-five thousand (75,000) gallons per day or less. This classification serves as a Collection System certification for Grade I Collection Systems with less than fifteen (15) service connections.

Biological/Natural This classification is for wastewater systems using natural biological treatment as the predominant means for treatment. This includes stabilization ponds, intermittent sand filters, recirculating sand filters, spray-irrigation, constructed wetlands, aerated lagoons, and overland flow systems. This classification serves as a Collection System certification for Grade I Collection Systems with less than fifteen (15) service connections.

Point totals for plant classification shall be computed in accordance with the following rating value criteria:

	Rating Value Points
Design Flow - For every one million (1,000,000) gallons per day design capacity, fraction thereof, a plant will be awarded rating value of:	2 pts.

(30 points maximum)

Effluent Discharge - Based upon the following factors, a plant will be awarded rating values of:

Receiving stream (sensitivity)	0-7 pts.*
Land disposal – evaporation	2 pts.
Subsurface disposal	4 pts.

Variation in Raw Wastes - Based upon the variation in the quality of the raw wastes, plant will be awarded a rating value of: 0-6 pts.*

Preliminary Treatment Units - A plant employing any of the following preliminary treatment processes will be awarded rating values of:

Manually cleaned screens	2 pts.
Mechanically cleaned screens	3 pts.
Preaeration	2 pts.
Comminutor, barminutor, grinders, etc	3 pts.
Grit removal	3 pts.

Raw sewage pumping	3 pts.
Flow equalization basins (Aerated)	5 pts.
Flow equalization basins (Un-aerated)	2 pts.
Fine screens	3 pts.

Primary Treatment Units - A plant employing any of the following primary treatment processes will be awarded rating values of:

Pre-chlorination	3 pts.
Primary Clarifiers	5 pts.
Primary Clarifiers with chemical settling aid	7 pts.
Swirl system	3 pts.

Secondary Treatment Units - A plant employing any of the following secondary treatment processes will be awarded rating values of:

Secondary Clarifiers	5 pts.
Flocculation with or without chemical aid	7 pts.
Trickling Filter without recirculation	6 pts.
Trickling Filter with recirculation	8 pts.
Activated Sludge+	
Oxidation ditch	8 pts.
Mechanical aeration	9 pts.
Diffused or dispersed aeration	10 pts.
Batch Treatment (ICEAS, etc)	10 pts.
Pure oxygen	15 pts.

+ Add ten (10) additional points for a two-stage activated sludge facility

Tertiary Treatment Units/Advanced Treatment - A plant employing any of the following tertiary, or advanced, treatment processes will be awarded rating values of:

Polishing pond or Effluent flow equalization	2 pts.
Land application of treated effluent	5 pts.
Chemical treatment removal	6 pts.
Denitrification	10 pts.
Sand or mixed media filters	8 pts.
Activated Carbon Beds	10 pts.
Nitrification required by permit	
By Activated Sludge	6 pts.
Nitrification by other process	5 pts.

Disinfection - Based upon the type of disinfection process employed, a plant will be awarded rating values of:

Chlorination	5 pts.
Dechlorination	5 pts.
Ozonization	10 pts.
Ultraviolet	5 pts.

Sludge Treatment and Handling - A plant employing any of the following sludge treatment and handling facilities will be awarded rating values of:

Anaerobic digestion	
Unheated	5 pts.
Heated	10 pts.
Aerobic digestion	7 pts.
Drying beds	3 pts.
Sand bed with polymer added	5 pts.
Gravity thickener	5 pts.

Dissolved air floatation thickener	8 pts.
Vacuum filter	8 pts.
Centrifuge	8 pts.
Belt Press, Plate & Frame	8 pts.
Solids reduction (Incinerator, wet oxidation, etc.)	15 pts.
Land application	5 pts.
Chemical stabilization with lime	8 pts.
All other dewatering units including wedgewire and vacuum beds, both with polymers	5 pts.
Composting: In vessel	10 pts.
Composting: Static Pile	5 pts.
Sludge Lagoon	3 pts.

Laboratory Control by Plant Personnel - Based upon the type and difficulty of laboratory work performed at a plant, a plant will be awarded rating values of:

Bacteriological (Complexity)	0-10 pts.*
Chemical/Physical (Complexity)	0-10 pts.*

Total Points **

* See Table 2

** If a rating value points total would not accurately reflect special conditions at a plant and a material distortion in its rating would occur, the Board will establish the classification of the plant after a review of its special conditions.

Table 2

Effluent Discharge - Points are assigned to a plant based upon the following receiving stream sensitivity criteria 0-7 pts.*

The key concept is the degree of dilution provided under low flow conditions. Assigned point values are:

Secondary, or equivalent to secondary, wastewater treatment only is required	1 pt.
Advanced secondary treatment	3 pts.
Tertiary treatment	5 pts.
Effluent used in a direct reuse system	7 pts.

Variation in Raw Wastes - Points are assigned to a plant based upon the variation from slight to extreme of the following factors: 0-6 pts.*

The key concept is frequency and/or intensity of deviation or excessive variation from normal or typical fluctuations; such deviation can be in terms of strength, toxicity, shock.

Recurring deviations or excessive variations in strength and/or flow less than 100 percent 0 pts.

Recurring deviations or excessive variations in strength and/or flow from 100 to 200 percent 2 pts.

Recurring deviations or excessive variations in strength and/or flow of more than 200 percent 4 pts.

Raw wastes subject to toxic waste discharges 6 pts.

Laboratory Control by Plant Personnel - Points are assigned in accordance with the type of laboratory control performed at the plant:

Bacteriological/biological (complexity)	0-10 pts.*
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The key concept is to credit bacteriological/biological lab work done on-site by plant personnel. Assigned point values are:

Lab work done outside the plant 0 pts.
Membrane filter procedures 3 pts.
Use of fermentation tubes or any dilution method 5 pts.
Biological identification 7 pts.

Chemical/physical (complexity) 0-10 pts.*

The key concept is to credit chemical/ physical lab work done on-site by plant personnel.

Lab work done outside the plant 0 pts.
Push-button or visual methods for simple tests such as pH, settleable solids 3 pts.
Additional procedures such as DO, COD, BOD, gas analysis, titrations, solids, volatile content 5 pts.
More advanced determinations such as specific nutrients, total oils, phenols, etc 7 pts.
Highly sophisticated instrumentation such as atomic absorption and gas chromatography 10 pts.

These terms describe the minimum level of effluent quality attainable for treated wastewater under standard design conditions in terms of the arithmetic mean of the values for effluent samples collected in a period of thirty (30) consecutive days for the following parameters: five-day biochemical oxygen demand (BOD₅); total suspended solids (TSS); and acidity/alkalinity (pH).

1. "Equivalent to secondary wastewater treatment" means the 30-day average for BOD₅ does not exceed 45 mg/l and there is no ammonia limit.
 2. "Secondary wastewater treatment" means the 30-day average for BOD₅ does not exceed 30 mg/l and there is no ammonia limit.
 3. "Advanced secondary wastewater treatment" means that the biochemical oxygen demand is expressed as the carbonaceous form (CBOD₅) that is equal to or greater than 10 mg/l and is equal to or less than 25 mg/l; and there is an ammonia limit.
 4. "Tertiary wastewater treatment" means that the CBOD₅ is less than 10 mg/l and there is an ammonia limit.
- (b) Grade I Collection System. This classification is for a wastewater collection system that uses collector and/or transmission lines to transport wastewater to a treatment plant and which serves no more than five thousand (5,000) service connections.
- (c) Grade II Collection System. This classification is for a wastewater collection system that uses collector and/or transmission lines to transport wastewater to a treatment plant and which serves more than five thousand (5,000) service connections.

Authority: T.C.A. §§ 68-221-901 et seq. and 4-5-201 et seq.

~~4200-05-03-09~~ ~~0400-49-01-09~~ Classifications and Qualifications of Wastewater Treatment Plant Operators and Wastewater Collection System Operators.

- (1) (a) Grade IV Wastewater Treatment Plant Operator

Certification as an operator in this classification will be made only upon the satisfactory completion by the applicant of the requirements of either ~~subparagraph~~ parts 1 or 2 of this rule subparagraph.

1. An applicant must have a bachelor degree in engineering, chemistry or a related science from an accredited college or university, must have twelve (12) months of operating experience at a Grade III or a Grade IV Wastewater Treatment plant, and must satisfactorily complete a written examination.
2. An applicant must have a high school education or equivalent, must have sixty (60) months of operating experience at a Grade III or a Grade IV Wastewater Treatment plant, and must satisfactorily complete a written examination. Within the discretion of the Board, college course work in related science or engineering courses satisfactorily completed, or Board sanctioned comprehensive training in chemistry, bacteriology, and the fundamentals of wastewater treatment satisfactorily completed through schools for operators, correspondence courses, or other special training, may be credited toward the required operating experience to a maximum equivalency of thirty-six (36) months.
3. To receive full time operating experience credit, a minimum of 100% of the activities must be work experience duties. The Board reserves the right to adjust calendar months of experience to a reduced number of months of experience where it is obvious that an applicant's experience routinely includes other duties. The Board encourages documented apprenticeship training programs and classroom training provided by the employer to better prepare an operator to make decisions in plant operation to assure public health protection.

(b) Grade III Wastewater Treatment Plant Operator

1. An applicant must have a high school education or equivalent, must have twelve (12) months of operating experience at a Grade II wastewater treatment plant or a Grade III wastewater treatment plant, and must satisfactorily complete a written examination. Board sanctioned comprehensive training in chemistry, bacteriology, and the fundamentals of wastewater treatment satisfactorily completed through schools for operators, correspondence courses, or other special training programs may be credited toward the required operating experience to a maximum equivalency of three (3) months.
2. To receive full time operating experience credit, a minimum of 50% of the activities must be work experience duties.

(c) Grade II Wastewater Treatment Plant Operator

1. An applicant must have a high school education or equivalent, must have twelve (12) months of operating experience at a Grade I wastewater treatment plant or a Grade II wastewater treatment plant, and must satisfactorily complete a written examination. Board sanctioned comprehensive training in chemistry, bacteriology, and the fundamentals of wastewater treatment satisfactorily completed through schools for operators, correspondence courses, or other special training programs may be credited toward the required operating experience to a maximum equivalency of three (3) months.
2. To receive full time operating experience credit, a minimum of 33% of the activities must be work experience duties.

(d) Grade I Wastewater Treatment Plant Operator

1. An applicant must have a high school education or equivalent, must have twelve (12) months of operating experience in a Grade I wastewater treatment plant or twelve (12) months operating experience at a biological/natural system and six (6) months at a Grade 4 I wastewater treatment plant, and must satisfactorily complete a written examination. Board sanctioned comprehensive training in chemistry, bacteriology, and the fundamentals of wastewater treatment satisfactorily completed through schools for

operators, correspondence courses, or other special training programs may be credited toward the required operating experience to a maximum equivalency of three (3) months.

2. To receive full time operating experience credit, a minimum of 33% of the activities must be work experience duties.

(e) Biological/Natural System Operator

1. An applicant must have a high school education or equivalent, must have twelve (12) months of operating experience in a wastewater system classified as a biological/natural system, and must satisfactorily complete a written examination. Board sanctioned comprehensive training in chemistry, bacteriology, and the fundamentals of wastewater treatment satisfactorily completed through schools for operators, correspondence courses, or other special training programs may be credited toward the required operating experience to a maximum equivalency of three (3) months.
2. To receive full time operating experience credit, a minimum of 33% of the activities must be work experience duties.

(f) Grades I & II Wastewater Collection System Operator

1. An applicant must have a high school education or equivalent, must have twelve (12) months of operating experience at a wastewater collection system, and must satisfactorily complete a written examination. Board sanctioned comprehensive training including installation, operation, maintenance and repair of collection systems, satisfactorily completed through schools for operators, correspondence courses, or other special training programs may be credited toward the required operating experience to a maximum equivalency of three (3) months.
2. To receive full time operating experience credit, a minimum of 50% of the activities must be work experience duties.

(2) ~~Initial Reclassifications under~~ Resulting from Amendments of this Chapter of Rules

- (a) The reclassification of a wastewater treatment plant or a wastewater collection system that immediately occurs as a result of amendments to this chapter ~~of rules~~ shall not reduce the operator classification of a certified operator then employed at that plant or system to a lower operator classification.
- (b) The reclassification of a wastewater treatment plant or a wastewater collection system that immediately occurs as a result of amendments to this chapter ~~of rules~~ shall raise the operator classification of a certified operator then employed at that plant or system to a higher operator classification equivalent with the new classification of the plant or system. This subparagraph shall apply only to a certified operator whose operator classification, immediately prior to reclassification of the plant or system pursuant to amendments to this chapter ~~of rules~~, is at least equivalent with the classification of the plant or system at which he/she is employed.
- (c) An applicant for examination who is employed at a wastewater treatment plant or a wastewater collection system that has been reclassified by the Department, and certified at the appropriate level, may have his/her experience at the facility applied at a rate equal to the level of the reclassified facility.
- (d) An operator classification authorized under prior rules that is eliminated upon amendments to this chapter ~~of rules~~ becoming effective shall be reclassified to the highest comparable operator classification authorized under these rules. (Industrial Biological Waste Treatment certificates become Grade IV Wastewater certificates).
- (e) An operator's classification may be changed by the Board if the operator is employed at a wastewater plant or collection system that has been incorrectly classified by the Department for one (1) year or more. The operator must hold a valid certificate equal to the incorrect plant or

system classification and the operator must have applied for and achieved the certificate based on the incorrect classification.

(3) Operating Experience Credit for Approved Study

- (a) For part (1)(a)2 of this rule, the Board may approve each ~~two~~ one (1) semester ~~hours~~ hour, or ~~three one and one half (1½)~~ quarter hours, of academic study satisfactorily completed at an accredited college or university in related science or engineering courses as equal to one month of the operating experience required as a qualification of a certified wastewater treatment plant operator.
- (b) For parts (1)(a)2, (1)(b)1, (1)(c)1, (1)(d)1, (1)(e)1, and (1)(f)1 of this rule, each day of Board sanctioned comprehensive training, satisfactorily completed, through schools for operators, correspondence courses, or other special training programs may be equal to one month of the operating experience required as a qualification of a certified wastewater treatment plant operator.

(4) Work Experience

- (a) The Board may approve the wastewater treatment operating experience required in parts (1)(a)1, (1)(a)2, (1)(a)3, (1)(b)1, (1)(c)1, (1)(d)1, and (1)(e)1 of this rule in two (2) or more of the following work experience duties:

Control of:

- Solids pumping from clarifiers
- Scum removal in clarifiers
- Return and waste sludge rates
- Aeration rates
- Recirculation rates to trickling filter or rotating biological contactor (RBC)

Operation of:

- Disinfection system feed rates
- Digesters and/or solids conditioning processes

Performance of:

- Calculations and plant control
- Interpretation of laboratory test results
- Interpretation of process control data
- Cleaning and maintenance of preliminary treatment
- Adjustment of wastewater levels or flow through a lagoon system

- (b) An operator applying for a Grade IV wastewater system certification may be granted partial credit by the Board for up to forty percent (40%) of any approved operating experience obtained in a water supply system.
- (c) The Board may approve the collection system operating experience required in part (1)(f)1 of this rule in two or more of the following work experience duties:

Operation and/or maintenance of:

- Pumps
- Lift stations
- Valves
- Lines and equipment
- Pipeline installation
- Service connection installation
- Leak detection
- TV crew activities
- Line repairs
- Line cleaning
- Manhole maintenance
- Pretreatment

(5) Summary of Wastewater Treatment Plant and Collection System Operator Education and Experience

Wastewater Treatment Plant Operators

Classification	Experience			Maximum Training or College Classwork Substitution	Maximum Related Work Substitution
	Experience needed with:	HS Education	BS Degree		
Grade IV	Gained at a Grade III or IV Wastewater Plant	*60 months	12 Months	36 Months	24 Months
*Regardless of the substitution allowances, a minimum of 1 year of actual work experience is required					
Grade III	Gained at a Grade II or III Wastewater Plant	12 Months		3 Months	
Grade II	Gained at a Grade I or II Wastewater Plant	12 Months		3 Months	
Grade I	Gained at a Grade I Wastewater Plant	12 Months		3 Months	
	Gained at Biological/Natural and Grade I Wastewater Plant	12 Months 6 Months			
Grade BNS	Gained at a BNS Wastewater Plant	12 Months		3 Months	

COLLECTION SYSTEM OPERATORS

Classification	Experience		Maximum Training or College Classwork Substitution	Maximum Related Work Substitution
	Experience needed with:	HS Education		
Grade II	Gained at a Collection I or II System	12 Months	3 Months	
Grade I	Gained at a Collection I or II System	12 Months	3 Months	

Authority: T.C.A. §§ 68-221-901 et seq. and 4-5-201 et seq.

~~4200-05-03-.10~~ 0400-49-01-.10 Continuing Education.

At least once during every continuing education period each certified operator shall satisfactorily complete the required number of continuing education hours approved by the Board for the particular type of certificate he/she holds. The continuing education period for a certified operator shall begin either with the date the certified operator obtained his/her certificate or the date the certified operator last satisfactorily completed the required number of continuing education hours and shall end at the conclusion of the annual continuing education term three (3) calendar years thereafter. An annual continuing education term shall begin each year on October 1 and shall end on September 30 of the following year. The failure of an operator to satisfactorily complete the required number of continuing education hours approved by the Board Secretary during his/her continuing education period shall be grounds for the denial of his/her application for the renewal of his/her certificate. An operator shall notify the Board Secretary upon his/her satisfactory completion of the continuing education requirement by furnishing appropriate documentation of course completion. Notification by the operator is not necessary in those cases where an agency notifies the Board Secretary of such activity. An operator that fails to satisfactorily complete the required number of continuing education hours during his/her continuing education period due to an unusual event such as an incapacitating illness or similar unavoidable circumstances may make a written request to the Board for an extension of time to do so. All requests by an operator for an extension of time to meet the continuing education requirement must be made in writing to the Board either within two (2) months of the elapsed continuing education period or by the date of return of the operator to active employment, whichever is later. All such requests must be accompanied by complete supporting documentation of the circumstances causing the failure to meet the continuing education requirement.

Authority: T.C.A. §§ 68-221-901 et seq. and 4-5-201 et seq.

~~4200-05-03-.11~~ 0400-49-01-.11 Summary Suspension and Revocation of Certificate.

- (1) ~~The Commissioner may issue an order to revoke the certificate of an operator when he/she determines that the~~ An operator's certificate may be revoked when:
- (a) ~~In accordance with paragraph (2) of this rule, an operator has not used reasonable care, judgment, or the application of his/her knowledge in the performance of his/her duties as a certified operator, or~~
 - (b) ~~In accordance with paragraph (3) of this rule, when the Commissioner determines that the operator is incompetent to perform those duties properly; or~~
 - (c) ~~In accordance with paragraph (4) of this rule, an operator has practiced fraud or deception.~~
- (2) An operator shall be deemed to have not used reasonable care, judgment, or the application of his/her knowledge in the performance of his/her duties if he/she does not comply with the laws, rules, permit requirements, or orders of any governmental agency or court which govern the water supply system or the wastewater system he/she operates. Such acts of noncompliance include but are not limited to the following:
- (a) The intentional or the negligent failure by the operator or persons under his/her supervision to act that results in a water supply system facility or a wastewater system facility not operating in the manner in which it is capable of being operated for the performance of its designed function.
 - (b) The intentional or the negligent failure by the operator or persons under his/her supervision to comply with the monitoring, sampling, analysis, or reporting requirements for a water supply system facility or a wastewater system facility.
 - (c) The intentional or the negligent unlawful discharge of wastes from a water supply system facility or a wastewater system facility.
 - (d) The intentional or the negligent failure by the operator or persons under his/her supervision to notify the Department of conditions: which may affect the quantity or quality of water being supplied to the customers of a water supply system; which cause the pollution of the waters of the State of Tennessee; or, which are violative of a standard of water quality promulgated by any governmental agency.
- (3) An operator shall be deemed to be incompetent to perform his/her duties properly when he/she does not possess the basic skills and knowledge necessary to operate a water supply system facility or a wastewater system facility including laboratory functions or if he/she fails to have a system of verification and oversight of employees under his/her charge. Incompetency shall be determined by examining the technical skills of the operator in operating the type of facility of which he/she is in direct charge.
- (4) ~~The Commissioner may issue an order to revoke the certificate of an operator when he/she determines that the operator obtained~~ An operator shall be deemed to have practiced fraud or deception as follows:
- (a) ~~Obtained~~ his/her certificate through fraud, deceit, or the submission of inaccurate data regarding his/her qualifications upon his/her application for a certificate; ;
 - (5)(b) ~~The Commissioner may issue an order to revoke the certificate of an operator when he/she determines that the operator has~~ Has practiced fraud or deception during the performance of his/her duties as a certified operator; or
 - (6)(c) ~~The Commissioner may issue an order to revoke the certificate of an operator who performs laboratory analytical services for a water supply system or a wastewater system when he/she determines that the operator has~~ Has prepared and/or signed reports of laboratory analysis results for the system that:
 - (a)1. contain Contain inaccurate data and are known or should be known by the operator to be false; or,

- (b)2. contain ~~Contain~~ inaccurate data because the operator has not used reasonable care, judgment, or the application of his/her knowledge either in the performance of the laboratory analysis or in the preparation of the laboratory analytical reports.

(5) Revocation

- (a) The Commissioner may initiate the process to revoke a certificate when he/she believes an operator has engaged in any of the activities set forth in paragraph (1) of this rule.
- (b) The Commissioner shall give notice by mail to the affected operator of facts or conduct that warrants revocation of the certificate and give the affected operator an opportunity to show compliance with these rules by conducting an informal hearing as provided in T.C.A. § 4-5-320(c).
- (c) After the T.C.A. § 4-5-320(c) informal hearing, if the Commissioner determines that the affected operator has failed to demonstrate compliance, the Commissioner shall issue a notice of hearing for revocation and include a recommendation to the Board to revoke and reinstate or not to reinstate the certificate. Any recommendation of reinstatement of the certificate shall include terms for such reinstatement.
- (d) The notice of hearing for revocation shall contain the information required by part 1 of this subparagraph and be served in accordance with part 2 of this subparagraph.

1. The notice shall include:

- (i) A statement of the time, place, nature of the hearing, and the right to be represented by counsel;
- (ii) A statement of the legal authority and jurisdiction under which the hearing is to be held, including a reference to the particular sections of the statute and rules involved; and
- (iii) A short and plain statement of the facts or conduct that warrant a revocation. (If the Commissioner is unable to state the matters in detail at the time the notice is served, the initial notice may be limited to a statement of the issues involved. Thereafter, upon timely, written application a more definite and detailed statement shall be furnished ten (10) days prior to the time set the hearing.)

2. A copy of the notice of hearing shall be:

- (i) Served upon the operator no later than thirty (30) days prior to the hearing date; and
- (ii) Served by personal service, return receipt mail or equivalent carrier with a return receipt.

A person making personal service on the operator affected shall return a statement indicating the time and place of service, and a return receipt must be signed by the operator affected. However, if the affected operator evades or attempts to evade service, service may be made by leaving the notice or a copy of the notice at the affected operator's dwelling house or usual place of abode with some person of suitable age and discretion residing therein, whose name shall appear on the proof of service or return receipt card. Service may also be made by delivering the notice or copy to an agent authorized by appointment or by law to receive service on behalf of the affected operator, or by any other method allowed by law in judicial proceedings.

(6) Summary Suspension and Revocation

- (a) The Commissioner may initiate the process of summary suspension and revocation of the certificate when the Commissioner believes that an emergency action is needed to protect the public health, safety or welfare.

- (b) The Commissioner shall give a notice to the affected operator by any reasonable means and shall inform the affected operator of the intended action, the acts or conduct that warrants summary suspension and revocation of the certificate and hold an informal hearing, as provided in T.C.A. § 4-5-320(d), to give the operator an opportunity to address the issue of whether there is an emergency.
- (c) The Commissioner shall appoint a hearing officer to conduct this T.C.A. § 4-5-320(d) hearing and the hearing shall be recorded and transcribed.
- (d) After the informal hearing as provided in T.C.A. § 4-5-320(d), if the Commissioner determines that an emergency action is warranted, the Commissioner shall issue an Order of Summary Suspension and a notice of hearing for revocation and include a recommendation to the Board to reinstate or not to reinstate the certificate. Any recommendation of reinstatement of the certificate shall include terms for such reinstatement.
- (e) The Order of Summary Suspension and the notice for revocation shall contain the information required by part (5)(d)1 of this rule and be served in accordance with part (5)(d)2 of this rule.
- (f) When the Commissioner has issued an Order of Summary Suspension and Notice of Revocation, the Board shall conduct its revocation hearing and render a decision within ninety (90) days of the operator's summary suspension. In the event the Board does not render its decision within ninety (90) days of the operator's summary suspension, the Order of Summary Suspension shall expire and no longer be in force or effect. However, the Commissioner may reissue an Order of Summary Suspension in accordance with this paragraph, for a period not to exceed ninety (90) days.
- (7) The revocation hearing before the Board shall be held in accordance with T.C.A. §§ 4-5-301 et seq. and Rule Chapter 1360-04-01 Uniform Rules of Procedure for Hearing Contested Cases Before State Administrative Agencies.
- (8) The Board may revoke the certificate of an operator when it is found that the operator has practiced fraud or deception; that reasonable care, judgment or the application of such operator's knowledge was not used in performance of such operator's duties; or that the operator is incompetent to properly perform such operator's duties. If the certificate is revoked and is to be reinstated, the Board shall determine the timing, terms and conditions for reinstatement.
- ~~(7)~~(9) An operator who receives an order of the Commissioner Board for the revocation of his/her certificate may appeal the order to the ~~Board~~ as provided by statute Chancery Court of Davidson County within sixty (60) days.
- ~~(8)~~(10) An operator whose certificate is revoked for failure to use reasonable care, judgment or the application of operator knowledge in performing the operator's duties or for incompetency shall be ineligible to again apply for certification as an operator for a minimum of one (1) year. An operator whose certificate is revoked for practicing fraud or deception, willfully violating regulations or permit conditions, or falsifying records and reports shall be ineligible to again apply for certification as an operator for a minimum of five years. When an operator whose certificate has been revoked has applied for a certificate after the minimum time has passed, the Board shall determine whether the operator has taken appropriate action to address the circumstances that were the cause of the revocation. The Board may request records and review his/her experience, education, training and past performance. The Board may request the former operator's presence at a meeting of the Board and interview him/her to assess the potential of future violations. After the reviews, the Board shall decide to accept or refuse the application.

Authority: T.C.A. §§ 68-221-901 et seq. and 4-5-201 et seq.

~~4200-05-03-.12~~ 0400-49-01-.12 Civil Penalties.

- (1) The Commissioner may assess the civil penalty authorized by law against a municipality, utility district, corporation, or any person operating a water supply system or a wastewater system if the competency of the person in direct charge of a system facility has not first been certified in

accordance with these rules.

- (2) A certified operator may be assessed the civil penalty authorized by law for the same acts and omissions that would constitute grounds for the revocation of his/her certificate by the Commissioner Board.
- (3) Prior to issuing an order that assess a civil penalty, in accordance with paragraphs (1) and (2) of this rule the Commissioner may hold a show cause meeting with the person or entity to whom the order is proposed to be issued.

Authority: T.C.A. §§ 68-221-901 et seq. and 4-5-201 et seq.

* If a roll-call vote was necessary, the vote by the Agency on these rulemaking hearing rules was as follows:

Board Member	Aye	No	Abstain	Absent	Signature (if required)
Randal L. Braker	X				
Alan C. Cranford	X				
J. Darryl Green	X				
Dr. Larry W. Moore				X	
Jennifer Dodd	X				

I certify that this is an accurate and complete copy of rulemaking hearing rules, lawfully promulgated and adopted by the Tennessee Water and Wastewater Operator Certification Board on 04/22/2014, and is in compliance with the provisions of T.C.A. § 4-5-222.

I further certify the following:

Notice of Rulemaking Hearing filed with the Department of State on: 02/14/14

Rulemaking Hearing(s) Conducted on: (add more dates). 04/08/14

Date: April 22, 2014

Signature: _____

Name of Officer: Alan C. Cranford

Title of Officer: Chairman

Subscribed and sworn to before me on: _____

Notary Public Signature: _____

My commission expires on: _____

All rulemaking hearing rules provided for herein have been examined by the Attorney General and Reporter of the State of Tennessee and are approved as to legality pursuant to the provisions of the Administrative Procedures Act, Tennessee Code Annotated, Title 4, Chapter 5.

Robert E. Cooper, Jr.
Attorney General and Reporter

Date

Department of State Use Only

Filed with the Department of State on: _____

Effective on: _____

Tre Hargett
Secretary of State

Public Hearing Comments

One copy of a document containing responses to comments made at the public hearing must accompany the filing pursuant to T.C.A. § 4-5-222. Agencies shall include only their responses to public hearing comments, which can be summarized. No letters of inquiry from parties questioning the rule will be accepted. When no comments are received at the public hearing, the agency need only draft a memorandum stating such and include it with the Rulemaking Hearing Rule filing. Minutes of the meeting will not be accepted. Transcripts are not acceptable.

Comment: A commenter stated that the Tennessee Association of Utility Districts (TAUD) supports the proposed changes.

Response: The Tennessee Water and Wastewater Operator Certification Board acknowledges TAUD's support.

Comment: A commenter brought to the division's attention a problem with language for the classification of Small Water Systems. The language as written requires transient systems with over 50 service connections to obtain a Water Treatment 1 and Distribution 1 license or higher.

Health risk associated with transient systems is usually relatively low due to the number of persons served and the relative exposure (i.e., rest areas, country stores, campgrounds do not serve the same people repeatedly and any exposure is generally of short duration). Additionally, if the transient systems are using ground water sources not under the direct influence of surface water the biggest health risk is from low levels of pathogenic organisms that can easily be controlled with disinfection and physical barriers. Neither disinfection nor cartridge filters are considered complex treatment.

Transient Non-Community Water Systems (TNCWS) are overwhelmingly small businesses, usually owner operated, and typically discover that they are a regulated entity after the business has been in operation. They generally do not possess the desire, experience, or technical ability to qualify to sit for advanced licensing tests.

Because the typical TNCWS owner operator will not possess a Water Treatment 1 or Distribution 1 license or higher and because they will not be able to sit for the test(s) for at least one year, they would most likely have to hire a part time contract operator to represent the system and sign MORs. The reality is that the owner operator will still be the person conducting the daily monitoring and maintenance of the system. Money will be spent by an often struggling start up business for someone to simply sign a report.

Water Treatment 1 and Distribution 1 licenses are not reflective of a typical TNCWS structure, which can be as simple as a well with minimal treatment and internal building plumbing supplying water to a kitchen and bathrooms.

Additionally, EPA specifically excluded the transient systems from the requirement for States to establish a classification under the certified operator program. Therefore, TDEC should have some flexibility to modify the rules to account for the special circumstances for TNCWS.

Response: Although EPA has not specifically dictated the training requirement for operators of transient systems, some level of training is required. The board agrees that training is necessary for these systems and that the level of training must be commensurate with the knowledge and skill necessary to protect public health and the environment. Subparagraph (3)(d) of Rule 0400-49-01-.06 has been amended to include transient non-community water systems which have a ground water source not under the direct influence of surface water and serve less than one-hundred (100) service connections as small water systems, provided the system does not use any treatment other than disinfection and/or cartridge filtration. This classification requires operators of these Transient Non-Community Water Systems to receive the correct amount of training and not a greater level of training that is not justified in these cases.

Regulatory Flexibility Addendum

Pursuant to T.C.A. §§ 4-5-401 through 4-5-404, prior to initiating the rule making process as described in T.C.A. § 4-5-202(a)(3) and T.C.A. § 4-5-202(a), all agencies shall conduct a review of whether a proposed rule or rule affects small businesses.

The Water and Wastewater Operator Certification Act (Act) (formally known as the "Water Environmental Health Act"), T.C.A. §§ 68-221-901 et seq., authorizes a system of certification of operators and penalties for non-compliance. The purpose of the Act is to prevent inadequate operation of water and wastewater systems. The Act was amended in 2013 (2013 Tenn. Pub. Acts 362) to change, among other things, the procedure for revocation of an operator's certification. Currently, Rule 1200-05-03-.11 conflicts with the Act as amended. This rulemaking resolves this conflict and outlines a procedure that complies with the Act and the Uniform Administrative Procedures Act, T.C.A. § 4-5-320 Proceedings Affecting Licenses.

This rulemaking also amends the rules to authorize the Board to approve each one semester hour, instead of two semester hours, or one and one half quarter hours, instead of three quarter hours, of academic study satisfactorily completed at an accredited college or university in related science or engineering courses as equal to one month of the operating experience required as a qualification of a certified water treatment plant operator, water distribution system operator and wastewater treatment plant operator. In addition, this rulemaking amends Rule 0400-49-01-.06(3)(d) to include transient non-community water systems which have a ground water source not under the direct influence of surface water and serve less than one-hundred (100) service connections as small water systems, provided the system does not use any treatment other than disinfection and/or cartridge filtration. The board believes that to protect public health and the environment that operators of these transient systems must receive the appropriate level of training. Based on the Department and Board's experience, the level of training required by this amendment, though it is a reduced level, will continue to adequately protect public health and the environment. Prior to this rulemaking, these operators were required to receive a greater level of training.

This rulemaking is also intended to move the rules from Chapter 1200-05-03 to Chapter 0400-49-01, to repeal Chapter 1200-05-06, which is no longer needed, and to edit the document to correct typos and incorrect references.

- (1) The type or types of small business and an identification and estimate of the number of small businesses subject to the proposed rule that would bear the cost of, or directly benefit from the proposed rule.

Public Water Systems and Wastewater Treatment and Collection systems together with Certified Water and Wastewater Operators would be directly affected by this rule.

- (2) The projected reporting, recordkeeping, and other administrative costs required for compliance with the proposed rule, including the type of professional skills necessary for preparation of the report or record.

There are no additional costs associated with this rulemaking.

- (3) A statement of the probable effect on impacted small businesses and consumers.

There is no impact on consumers resulting from this rulemaking. This rulemaking will impact the process that is followed to revoke or suspend a certificate issued to water and wastewater operators and allows the Board to adjust the qualification criteria with regard academic study and job experience, and bring regulatory relief to owners and operators of transient non-community water systems which have a ground water source not under the direct influence of surface water and serve less than one-hundred (100) service connections as small water systems, provided the system does not use any treatment other than disinfection and/or cartridge filtration.

- (4) A description of any less burdensome, less intrusive or less costly alternative methods of achieving the purpose and objectives of the proposed rule that may exist, and to what extent the alternative means might be less burdensome to small business.

There are no alternative methods available.

- (5) A comparison of the proposed rule with any federal or state counterparts.

Federal law does not specify the training required for operators of transient systems, but does require the states to establish an appropriate training program.

- (6) Analysis of the effect of the possible exemption of small businesses from all or any part of the requirements contained in the proposed rule.

To accomplish the goal of this rulemaking an exemption of small businesses is not possible.

Impact on Local Governments

Pursuant to T.C.A. §§ 4-5-220 and 4-5-228 "any rule proposed to be promulgated shall state in a simple declarative sentence, without additional comments on the merits of the policy of the rules or regulation, whether the rule or regulation may have a projected impact on local governments." (See Public Chapter Number 1070 (<http://state.tn.us/sos/acts/106/pub/pc1070.pdf>) of the 2010 Session of the General Assembly)

The Department anticipates that this rulemaking will have an impact on local governments.

Additional Information Required by Joint Government Operations Committee

All agencies, upon filing a rule, must also submit the following pursuant to T.C.A. § 4-5-226(i)(1).

- (A) A brief summary of the rule and a description of all relevant changes in previous regulations effectuated by such rule;

The Water and Wastewater Operator Certification Act (Act) (formally known as the "Water Environmental Health Act"), T.C.A. §§ 68-221-901 et seq., authorizes a system of certification of operators and penalties for non-compliance. The purpose of the Act is to prevent inadequate operation of water and wastewater systems. The Act was amended in 2013 (2013 Tenn. Pub. Acts 362) to change, among other things, the procedure for revocation of an operator's certification. Currently, Rule 1200-05-03-.11 conflicts with the Act as amended. This rulemaking resolves this conflict and outlines a procedure that complies with the Act and the Uniform Administrative Procedures Act, T.C.A. § 4-5-320 Proceedings Affecting Licenses.

This rulemaking also amends the rules to authorize the Board to approve each one semester hour, instead of two semester hours, or one and one half quarter hours, instead of three quarter hours, of academic study satisfactorily completed at an accredited college or university in related science or engineering courses as equal to one month of the operating experience required as a qualification of a certified water treatment plant operator, water distribution system operator and wastewater treatment plant operator. In addition, this rulemaking amends Rule 0400-49-01-.06(3)(d) to include transient non-community water systems which have a ground water source not under the direct influence of surface water and serve less than one-hundred (100) service connections as small water systems, provided the system does not use any treatment other than disinfection and/or cartridge filtration. The board believes that to protect public health and the environment that operators of these transient systems must receive the appropriate level of training. Based on the Department and Board's experience, the level of training required by this amendment, though it is a reduced level, will continue to adequately protect public health and the environment. Prior to this rulemaking, these operators were required to receive a greater level of training.

This rulemaking is also intended to move the rules from Chapter 1200-05-03 to Chapter 0400-49-01, to repeal Chapter 1200-05-06, which is no longer needed, and to edit the document to correct typos and incorrect references.

- (B) A citation to and brief description of any federal law or regulation or any state law or regulation mandating promulgation of such rule or establishing guidelines relevant thereto;

This rulemaking is being promulgated under the authority of T.C.A. §§ 68-221-901 et seq., 68-203-101 et seq. and 4-5-201 et seq.

- (C) Identification of persons, organizations, corporations or governmental entities most directly affected by this rule, and whether those persons, organizations, corporations or governmental entities urge adoption or rejection of this rule;

Public Water Systems and Wastewater Treatment and Collection systems together with Certified Water and Wastewater Operators would be directly affected by this rule. TAUD supports the adoption of these proposed rules.

- (D) Identification of any opinions of the attorney general and reporter or any judicial ruling that directly relates to the rule;

The Department is not aware of any.

- (E) An estimate of the probable increase or decrease in state and local government revenues and expenditures, if any, resulting from the promulgation of this rule, and assumptions and reasoning upon which the estimate is based. An agency shall not state that the fiscal impact is minimal if the fiscal impact is more than two percent (2%) of the agency's annual budget or five hundred thousand dollars (\$500,000), whichever is less;

This rulemaking will have no fiscal impact on state and local governments.

- (F) Identification of the appropriate agency representative or representatives, possessing substantial knowledge and understanding of the rule;

Sherry Messick
J. R. Fleming Environmental Training Center
2022 Blanton Drive
Murfreesboro, TN 37129
(615) 898-8090

- (G) Identification of the appropriate agency representative or representatives who will explain the rule at a scheduled meeting of the committees;

Jenny Howard
Deputy General Counsel
Office of General Counsel

- (H) Office address, telephone number, and email address of the agency representative or representatives who will explain the rule at a scheduled meeting of the committees; and

Office of General Counsel
Tennessee Department of Environment and Conservation
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 2nd Floor
Nashville, Tennessee 37243
(615) 532-8685
Jenny.Howard@tn.gov

- (I) Any additional information relevant to the rule proposed for continuation that the committee requests.

The Department is not aware of any additional relevant information.