



Chapter 531 Wastewater Treatment Operator Certification Summary of Revisions June 2023

Summary

On May 18, 2023, the Board of Environmental Protection (BEP) approved to repeal and replace the existing 06-096 C.M.R. Chapter 531: Wastewater Treatment Plant Operator Certification. The rule establishes criteria for the classification of wastewater treatment plants and requirements for certification as an operator of a wastewater treatment plant under the authority of 32 M.R.S. § 4179. This approval completed a multi-year process that included stakeholder meetings and a public comment period.

Chapter 531 was originally written in 1975 and amended numerous times, with the last revision in 2006. The 2023 repeal and replace reflects updates that were made in 2021 to MRS Title 32, Chapter 62. Sewage Treatment Operators, as well as updating language to reflect new technologies, Department practices, and input from stakeholders.

When effective, the new rule can be found at this website:

<https://www.maine.gov/sos/cec/rules/rules.html>.

Key changes include: reformatting and updating for clarity, changes from paper-based to computer-based testing, adding a definition section, revised classification of wastewater plants to include unit operations and complexity in the plant rating, providing a process for suspensions and revocations, including steps a person must take to reinstate their certification following revocation, changes to contract operations (ConOps) requirements to allow up to 90-days of an interim contract pending Department approval of a final ConOps contract, a professional code of conduct to be followed by operators, a new Provisional operator classification, and changes to the education and experience requirements for certain grade levels.

Attachments

- Attachment 1 is a spreadsheet that lists the section number and title of the revised rule compared to the previous ch 531 version and explains the changes for each section.
- Attachment 2 is an example *Wastewater Treatment System Classification Rating Sheet* that will be used to classify plants as described in Section 3. Classification of Wastewater Treatment Plants of the revised rule.
- Attachment 3 is a table summarizing the education and experience requirements for Biological grades 1-5 reflected in the revised rule.

For more information, contact Judy.K.Bruejnes@maine.gov.

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New Section # and Title	Previous Section Number	Explanation of changes from previous 531 version
Title		Changed title to WASTEWATER TREATMENT PLANT OPERATOR CERTIFICATION from REGULATIONS FOR WASTEWATER OPERATOR CERTIFICATION
SUMMARY		Updated language.
1. Applicability	1.A.	Updated language.
2. Definitions	New section added	New section: Added pertinent definitions using Chapter 62 as a reference.
3. Classification of Wastewater Treatment Plants	2. Classification of Wastewater Treatment Plants	Revised process for classifying plants. Removed references to older, obsolete technologies and Population Equivalent (P.E.). Added the factors that will be used during the permitting process to classify plants: design flow, effluent discharge, influent characteristics, preliminary, primary, secondary, tertiary, and physical-chemical treatment, solids handling, disinfection, laboratory, collection system, and system complexity. Changed numbers from Roman numerals to arithmetic numerals.
		See Attachment 1 for Wastewater System Classification Rating Sheet
3.A.	2.A. Classification of Biological Treatment Plants	Updated language.
3.B.	2.B. Classification of Physical/Chemical Treatment Plants	Updated language.
3.C.	2.C. Classification of Spray Irrigation Treatment Plants	Detailed that only private and commercial spray systems will be classified as SITS-1/2, and municipal and quasi-municipal pond/lagoon systems treating domestic wastewater will be assigned a Biological classification, and that the Department may assign SITS plants a Biological classification based on size and complexity.

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3.D.	2.D. Upgrade of Downgrade of Plant Classification.	Updated language.
4. Certification of Operators	3.A. Operator Grades and 3.D. Types of Certification	Updated language to include tying plant classifications to operator certification levels.
5. Operator in Responsible Charge (ORC)		Added language to specify that at least one operator shall be designated by the plant owner as the Operator in Responsible Charge (ORC).
5.A	3.D.	Updated language.
5.B.		Added language to specify that the ORC must hold Active status.
5.C.	1.D. Applicability to Professional Engineers	No changes except to specify that the professional engineer's license must be in good standing.
5.D.	1.B. Contract Operators	Revised language for submitting contracts for approval to allow initiation of an interim contract for up to 90 days pending Department review and approval of the final contract, provided the interim contract is submitted to the Department within 24 hours of initiation. The contracted operator may serve as the ORC during the term of the interim contract.
	1.E. Display of Certificate	Removed requirements to display certificate.
	1.F. Qualification to Operate Plants by Grade	Removed reference to 32 MRSA § 4177 (refers to 1969 date).
5.E.	3.A. Operator Grades	Updated language.
6. Certification Status	New section added	Defined categories of operator status including Active, Inactive, Provisional (previously in 1.C.), Suspended and Revoked.
7. Requirements for Certification	3. Requirements for Certification	Updated language.

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7.A. Examination	3.C. Examination Requirements, 3.E. General Requirements and Definitions, and 1.C. Provisional Certification	Updated language on certification by examination to reflect current practice of computer-based testing using 3rd party exam providers. Included requirement that a person with a revoked certification must retake the exam prior to being reinstated as a certified operator.
7.B. Education Requirements	3.B. Qualification for Certification	New requirement for all certified operators to have a minimum a high school diploma or GED. Updated definition of related education and method to evaluate education hours for determining initial eligibility.
7.C. Experience Requirements	3.B. Qualification for Certification	Updated definitions of wastewater work experience and related work experience. Added methodology to accept military work experience as related work experience, and a certificate from a water technology program as wastewater work experience..
7.D. Grade-Specific Requirements for Biological Certification	3.E. General Requirements and Definitions	Modified education and work experience for Biological grades 1 - 5. See Attachment 2 for a table comparing previous and revised requirements.
N/A	3.F. Advanced Treatment Examination	Removed option for Advanced Treatment Examination.
7.E. Grade-Specific Requirements for SITS and P/C Certification	3.E. General Requirements and Definitions	Modified education and work experience for P/C and SITS operators.
7.F. Provisional Certification	1.C. Provisional Certification	Expanded category of Provisional status to include all grades. Removed reference to obsolete educational programs.
7.G. Reciprocity	3.C. Examination Requirements	Expanded description of reciprocity.
7.H. Certification Procedure	4. Certification Procedure	Updated process and deadlines to account for current registration methods for computer-based testing. Removed requirement for notarizing and mailing of application to allow for online registration methods.
	4.A. Application Requirements	Removed allowance for applicant to take the exam up to three months prior to being fully qualified due to availability of computer based testing throughout the year with immediate results upon test completion.

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8. Additional Proof of Competency Following Revocation	New section added	Specified requirements to show proof of competency by a person whose certification was revoked in accordance with ch 62. Required before a person with a revoked certification is allowed to apply for reinstatement.
9. Biennial Renewals	4.D. Training Requirements	Provide details for the biennial renewal cycles for operators renewing their certification.
10. Continuing Education	4.D. Training Requirements	Provide details for obtaining Training Contact Hours (TCHs) to satisfy continuing education requirements for biennial renewal. Include allowance of up to six hours of management training or safety training as part of the required 18 hours for biological, P/C, and SITS-2 certifications.
11. Failure to Renew	5. Failure to Renew; Reinstatement	No change.
12. Enforcement	New section added	Referenced enforcement pursuant to 38 M.R.S. §347-A and penalties pursuant to 38 M.R.S. §349 for any operator or operator in responsible charge that violates any provision of this rule.
13. Revocation or Suspension	New section added	Provide details on procedures by the Commissioner for revocation or suspension of operators who are subject to enforcement pursuant to 38 M.R.S. §347-A.
14. Criteria for Revocation or Suspension	New section added	List criteria used for suspension or revocation of a certification by the Department.
15. Judicial Review of a Department Decision	New section added	Add section on judicial review following suspension or revocation.
16. Operator Code of Professional Conduct	New section added	Professional standards operators must follow to safeguard the life, health, and welfare of the public and the environment, and to establish and maintain a high standard of integrity in the certified operator profession.



Maine Department of Environmental Protection
 Bureau of Water Quality
 Division of Water Quality Management



WASTEWATER TREATMENT - SYSTEM CLASSIFICATION RATING SHEET

FACILITY NAME: [Type Facility Name here] MEPDES: [NPID?]
 FACILITY LOCATION: _____

TABLE 1

SYSTEM GRADE	B-1	B-2	B-3	B-4	B-5	P/C-1	P/C-2	SITS-1	SITS-2
RANGE OF POINTS	30 or less⁽¹⁾	31-55	56-75	76-100	>100	30 or less⁽¹⁾	31-55	30 or less⁽¹⁾	31-55
	Biological Grades					Physical/Chemical Grades		Spray Irrigation Grades	

POINTS ARE ASSIGNED TO EACH ITEM BELOW THAT APPLIES TO THE TREATMENT SYSTEM	POINTS	
	RATING	ACTUAL
A. DESIGN FLOW		
2 points per MGD or part thereof, 20 maximum (multiply MGD by 2. Enter design flow here:	(X 2)	
B. EFFLUENT DISCHARGE		
Surface water discharge	3	
Land Disposal: ⁽²⁾		
-----Spray field ≤ 10 acres, domestic only	8	
-----Spray field > 10 acres	16	
-----Snow making	3	
-----Subsurface disposal	2	
Continuous discharge	6	
Seasonal/Intermittent discharge	1	
Recycle/reuse	6	
C. NATURE OF INFLUENT WASTE		
Predominantly domestic sanitary	4	
Domestic sanitary and industrial component	6	
Domestic sanitary and significant industrial component (IPP program)	10	
Predominantly industrial wastewater	10	
Food Processing/Commercial wastestream	6	
Toxics Program (Ch 530) facility	6	
Trucked-in wastes (septage)	3	
D. PRELIMINARY TREATMENT		
Screening, grinder, comminutor	3	
Grit removal	3	
Plant pumping of main flow	3	
Equalization/ pH adjust. / Oil skimmer (3pt. ea.)	3	
Chemical Additions (odor control, etc.)	4	
Disinfection covered in Section J.		
E. PRIMARY TREATMENT		
Primary clarifiers	5	
F. SECONDARY TREATMENT		
Selector tank	2	
Trickling Filter, RBC w/ secondary clarifiers	8	
Activated sludge with secondary clarifiers (including extended aeration, oxidation ditches)	10	
Stabilization ponds without aeration	6	
Aerated lagoon	8	
Membrane biofilter (as sole secondary system)	8	
Subsurface	2	
Subtotal		

POINTS ARE ASSIGNED TO EACH ITEM BELOW THAT APPLIES TO THE TREATMENT SYSTEM	POINTS	
	RATING	ACTUAL
G. PHYSICAL/CHEMICAL TREATMENT		
Physical/Chemical only (no secondary treatment) ⁽³⁾	15-30	
H. ADVANCED WASTEWATER TREATMENT		
Polishing pond	4	
Physical/Chemical following secondary treatment	12	
Biological Nutrient Removal (BNR)	12	
Tertiary treatment – nutrient removal	12	
Tertiary treatment - toxics removal	18	
Groundwater remediation	16	
Dissolved Air Flotation (DAF)	10	
Tertiary filters (Sand, multi-media, carbon, screen)	5	
I. SOLIDS HANDLING		
Thickeners (Gravity Belt, clarifiers, DAF, etc.)	6	
Sludge drying (incl. reed beds), Land spreading	2	
Aerobic digestion	8	
Mechanical dewatering (screw, centrifuge, rotary, Belt Filter Press)	10	
Anaerobic Digestion	12	
Solids reduction (incineration, wet oxidation)	14	
Composting on site	5	
Energy Recovery	18	
J. DISINFECTION		
Chemical (hypochlorite, peracetic acid), UV	6	
Dechlorination	2	
K. LABORATORY		
Full compliance testing laboratory on site	6	
Grab samples only (all other tests performed by contract lab) and/or process control sampling	2	
Groundwater Monitoring	4	
L. COLLECTION SYSTEM		
Collection system supplemental rating: add 40% of Design Flow rating from Section A above >>		
Pump station maintenance	2	
Lift stations	4	
Combined Sewer Overflow (CSO) Program	6	
M. COMPLEXITY/INFLEXIBILITY⁽⁴⁾	2-20	
Subtotal		
Plant Classification and Grade: _____		Grand Total

APPROVALS:

	Printed Name	Signature	Date
Certifying Official:	_____	_____	_____
Licensing Project Manager:	_____	_____	_____
Data Manager:	_____	_____	_____



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DIRECTIONS:

The rating sheet is completed by the DEP Inspector or Certifying Official once per licensing cycle, following plant upgrades/modifications, or as requested by the inspector or facility personnel. The grand total point value is used to determine the system classification (Biological, Physical/Chemical, or Spray Irrigation) and grade level (1-5) as specified by the range of points in Table 1. The rating sheet is signed by the Permit Project Manager and incorporated into the permit by the Data Manager.

In accordance with Chapter 531: Wastewater Operator Certification Rule, the owner of the treatment system shall designate a minimum of one person to be the Operator in Responsible Charge (ORC) who has direct responsibility for the operation and maintenance (O&M) of the wastewater treatment system. The ORC must hold a certification classification of a level equal to or greater than the classification of the wastewater system.

A certified Biological operator shall be considered qualified by the Department to operate a Physical/Chemical or Spray Irrigation system of the same grade or lower without obtaining additional certification. A registered professional engineer (P.E.) may be designated by the owner to be the ORC of a treatment system of any classification without obtaining additional certification.

The Department may upgrade or downgrade an individual treatment system if it determines that, based on the design and operation of the system, the complexity and degree of skill required for its operation are not properly accounted for by the categories in Table 1.

FOOTNOTES:

1. The certifying official may determine a facility does not warrant a plant classification given certain facility aspects such as de minimis flow, minimal treatment, or insignificant impacts to the environment, even though the rating falls within a certain grade level. Use COMMENTS field below to explain reasons for waiving the plant classification.
2. Spray Irrigation Treatment System (SITS) plant classifications are only assigned to privately-owned land disposal systems. **Municipal** land disposal systems **must** be assigned a biological grade level as determined by the system classification rating sheet.
3. Physical/Chemical wastewater treatment without secondary treatment are assigned a PC-1 or PC-2 grade based on the system classification rating sheet. The range of points is predicated on the type of physical/chemical process being managed, including oily waste treatment, cyanide destruction, chrome reduction, and treatment of metal wastes. The Department may classify a Physical/Chemical wastewater treatment system under the Biological classification system based on size and complexity.
4. The process complexity/inflexibility rating should take into account certain fluctuations in flow and treatment plant design that create additional difficulties for treatment plant personnel over and above expected process control management. Use COMMENTS field below to explain reasons for including the points associated with this rating.

COMMENTS:



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Biological Wastewater Operator Certification Education and Experience Requirements <i>All grades require H.S. diploma or equivalent</i> <i>Applicants must pass a qualifying examination by 70%</i>			
Grade	Work and Education Experience		
1	No experience required.		
2	1 yr wastewater experience ¹	or	4 yrs combination of related work experience ² and/or related education ³
3	2 yr wastewater experience ¹ at B-2 plant or higher	or	Meet requirements for B-2, plus one additional year of wastewater experience ¹
4	6 yrs wastewater experience ¹ at B-2 plant or higher. Up to 3 yrs of a combination of related work experience ² and related education ³ may be substituted for the same number of years of wastewater work experience ¹ .		
5	8 yr wastewater experience ¹ at B-3 plant or higher. Up to 4 yrs of a combination of related work experience ² and related education ³ may be substituted for the same number of years of wastewater work experience ¹ .		
Footnotes:			
1. Wastewater experience: Performance, supervision or administration of operational duties directly related to wastewater treatment, including operation and/or maintenance of process equipment, lab work, sludge handling, process control, and wastewater compliance.			
2. Related work experience: Performance or supervision of duties for drinking water, industrial wastewater, wastewater collections, wastewater design, or other related disciplines as accepted by the Department. Military service will be credited one year of related work experience.			
3. Related education: Post high school coursework or training in the areas of biology, chemistry, environmental science, environmental studies, engineering, water and wastewater treatment technology, and other related fields as approved by the Department.			

This is a summary table. For more details, refer to ch 531 at this link:
<https://www.maine.gov/sos/cec/rules/rules.html>

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