

9

**NEW JERSEY STATE
DEPARTMENT OF HEALTH**

RULES AND REGULATIONS

ON

LICENSING

OF

SUPERINTENDENTS

OR OPERATORS

OF

**PUBLIC WATER TREATMENT PLANTS,
PUBLIC SEWAGE TREATMENT PLANTS, AND
PUBLIC WATER SUPPLY SYSTEMS**

—

**1953
(Reprinted 1958)**

ABSTRACTS OF CHAPTER 295, LAWS OF 1946

Definitions

58:11-18.10. Definitions. As used in this act (58:11-18.10 et seq.):

(a) "Public water treatment plant" means any structure or structures by means of which water prior to discharge into a public water supply system is subjected to the addition of a substance or substances in order to enhance the safeness of the water used for potable or domestic purposes.

(b) "Public sewage treatment plant" means any structure or structures by means of which domestic wastes are subjected to any artificial process in order to remove or so alter constituents as to render the wastes less offensive or dangerous to the public health, comfort or property of any of the inhabitants of this state before the discharge of the plant effluent into any of the waters of this state; this definition includes plants for the treatment of industrial wastes as well as a combination of domestic and industrial wastes.

(c) "Public water supply system" means a system comprising structures which operating alone or with other structures result in the derivation, conveyance or (transmission) or distribution of water for potable or domestic purposes to consumers in twenty or more dwellings or properties; this definition does not include a public water treatment plant.

(d) "Superintendents or operators" means all persons under any local titles or other designations who are now or shall hereafter be in direct general charge of public water treatment plants, public sewage treatment plants or public water supply systems and who are responsible for and supervise the condition, operation and effectiveness of the structures comprising the said plants or systems and who are responsible for the safeness or quality of the effluents discharged or delivered from said plants or said systems and who are experienced in the operation of the structures and have knowledge of the methods and controls used in the treatment of water or sewage or the deliverance or conveyance of water for potable or domestic purposes.

(e) "Department" means the department of health of the State of New Jersey.

(f) "Rules and regulations" means the rules and regulations adopted by the department of health of the state of New Jersey for the conduct of examinations for the licensing of superintendents or operators and may include qualifications for admittance to examinations and classifications based upon: the capacity of the plant or system, the amount of water supplied or sewage treated, the method of treatment, the source of water supply, the method of water distribution, the method of sewage collection, the nature or use of the waters prior to the use of said waters for potable or domestic purposes, the nature or use of the waters receiving the effluents from sewage treatment plants, and, the limitation of the use of licenses issued pursuant to this act. (58:11-18.10 et seq.).

(g) "Waters of this state" means the ocean and its estuaries, all springs, streams and bodies of surface waters, whether natural or artificial, within the boundaries of this state or subject to its jurisdiction.

(h) All other words or phrases shall be defined and construed as provided by chapter one of Title 1 of the Revised Statutes.

Source. L. 1946, c. 295, section 1. Approved May 6, 1946, effective immediately.

Licensing by Examination

58:11-18.11. In order to protect and preserve public health, safety and welfare, by providing that municipalities, corporations or persons owning or operating public water treatment plants, public sewage treatment plants or public water supply systems may secure the services of capable superintendents or operators, the department is hereby authorized to cause examinations to be made at least twice annually, by such persons and at such times and places as it may appoint and under such rules and regulations as it may adopt for the purpose of determining the qualifications of applicants for licenses as superintendents or operators. Such examinations shall be in such subjects and conducted in such a manner as the department shall direct. Every applicant whose examination shall be approved by the department shall receive a license as superintendent or operator of public water treatment plants or public water supply systems or public sewage treatment plants, as the case may be.

Source. L. 1946, c. 295, section 2. Approved May 6, 1946, effective immediately.

58:11-18.12. No municipality, corporation or person shall appoint any person as superintendent or operator in charge of any public water treatment plant or of any public sewage treatment plant or of any public water supply system, or permit any person to discharge the duties of superintendent or operator of any such plant or system who is not a holder of a license issued by the department under the provisions of this act (58:11-18.10 et seq.); provided, however, that nothing herein contained shall prevent any municipality, corporation or person from continuing in office any person now occupying the office of superintendent or operator in charge of such plant or system, and the department upon certification from the proper municipal officer, corporation or individual, that such person held the office of superintendent or operator in charge of such plant or system at the time this act (58:11-18.10 et seq.) became effective, shall issue a license to said person to operate such plant or system in the same manner as if he had passed an examination held by the department; provided further, however, that this act (58:11-18.10 et seq.) shall not affect the validity of licenses already issued by the department to superintendents or operators to operate such plants or systems under the provisions of chapter twenty-three, laws of one thousand nine hundred and eighteen (now sections 58:11-14 to 58:11-18 of the Revised Statutes) and chapter two hundred six, laws of one thousand nine hundred and thirty-eight (now sections 58:11-18.1 to 58:11-18.6 of the Revised Statutes).

License and Renewal Fees; Expiration of Licenses

58:11-18.13. The department shall issue a license upon payment of a license fee to any applicant who, in the opinion of the department, has satisfactorily met all the requirements of this act (58:11-18.10 et seq.). The license fee shall be five dollars (\$5.00), of which two dollars (\$2.00) shall accompany the application, the remainder to be paid upon notification that the applicant is entitled to a license. Should the department deny admittance to the examination or the issuance of a license to any applicant the initial fee of two dollars (\$2.00) shall be retained. Licenses shall ex-

pire on the thirtieth day of September following issuance or renewal. Licensees shall apply for renewal on or before the thirtieth day of September of each year. Renewal may be effected at any time during the month of September by the payment of a fee of five dollars (\$5.00). The failure on the part of the licensee to renew his license annually in the month of September as required shall not deprive such person of the right of renewal but the fee to be paid for renewal of a license after the thirtieth day of September shall be one dollar (\$1.00) for every three months or fraction thereof that payment of renewal is delinquent in addition to the annual renewal fee of five dollars (\$5.00). The failure on the part of the licensee to renew his license within two years from the date of expiration of said license will automatically revoke such license.

Source. L. 1946, c. 295, section 4. Approved May 6, 1946, effective immediately.

Revocation of Licenses

58:11-18.14. The department may revoke the license of any superintendent or operator of a public water treatment plant or public sewage treatment plant or public water supply system if, after a hearing held by the department or its director at which the superintendent or operator shall have had an opportunity to be heard, either in person or by counsel, the department determines that the superintendent or operator is incompetent to manage the plant or system, or that he has willfully neglected his duty in supervising the operation of the plant or system, or that he has disregarded or disobeyed the lawful orders, rules or regulations of the department. Any person whose license shall have been revoked shall be ineligible for admission to any examination authorized by this act (58:11-18.10 et seq.) for a period of not less than six months nor more than two years.

Source. L. 1946, c. 295, section 5. Approved May 6, 1946, effective immediately.

Penalties

58:11-18.15. Any municipality, corporation or person owning or operating a public water treatment plant, a public sewage treatment plant or a public water supply system who shall violate any of the provisions of this act (58:11-18.10 et seq.), or any person commencing or continuing to discharge the duties of a superintendent or operator of a public water treatment plant, a public sewage treatment plant or a public water supply system without first having obtained a license or having failed to renew his license as provided in this act (58:11-18.10 et seq.), or discharging the duties of a superintendent or operator of such plants or system contrary to any of the provisions of this act (58:11-18.10 et seq.) shall be subject to a fine of ten dollars (\$10.00) for each day on which the violation has occurred. The penalty shall be recovered in the manner hereinafter provided.

Source. L. 1946, c. 295, section 6. Approved May 6, 1946, effective immediately.

Prior-to Section

58:11-18.18. Nothing herein contained shall be held to abate or render invalid any notice or proceeding, or suit at law or in equity, which may have been served, begun or instituted by the department, prior to the date hereof, in accordance with the powers and duties heretofore conferred upon it, but the same shall continue in full force and effect, and be further advanced and prosecuted in the name of the department; nor shall anything in this act (58:11-18.10 et seq.) be construed to in anywise affect the tenure, term or status of any

person holding a position requiring a license under the provisions of this act (58:11-18.10 et seq.) at the time of the passage of this act (58:11-18.10 et seq.).

Source. L. 1946, c. 295, section 9. Approved May 6, 1946, effective immediately.

Exemption from Renewal Fee

58:11-18.19. Licensees employed in the operation of public water treatment plants, public sewage treatment plants or public water supply systems, privately owned or maintained by any person or corporation, shall be exempt from the payment of the annual renewal fee provided in this act (58:11-18.10 et seq.) except the fee of one dollar (\$1.00) for every three months or fraction thereof that the application for renewal be delinquent; provided, however, that all licenses issued without the payment of the renewal fee shall be valid only at the utility at which the licensee is employed at the time of issuance of the license. The failure on the part of the licensee to renew his license within two years from the date of the expiration of said license will automatically revoke such license.

Source. L. 1946, c. 295, section 10. Approved May 6, 1946, effective immediately.

Act Supersedes Prior Statutes; Tenure Act Applies

58:11-18.21. In so far as the provisions of this act (58:11-18.10 et seq.) are inconsistent with the provisions of any act, general or special, the provisions of this act (58:11-18.10 et seq.) shall be controlling, but nothing in this act (58:11-18.10 et seq.) contained shall be construed to repeal or in anywise impair the provisions of chapter two hundred thirty-four of the laws of one thousand nine hundred and forty-one, and said last mentioned act shall also be applicable to persons licensed under this act (58:11-18.10 et seq.).

Source. L. 1946, c. 295, section 12. Approved May 6, 1946, effective immediately.

THE TENURE ACT—CHAPTER 234, LAWS OF 1941

58:11-18.7. Tenure for persons in charge; removal; hearing. No person now or hereafter licensed under the provisions of article five of chapter eleven of Title 58 of the Revised Statutes, having direct general charge of the operation and maintenance of public water systems or sewage disposal or treatment plants after five years' consecutive service in any such position shall be removed from his position or subjected to a reduction of salary except for good cause and after a public hearing. In computing such five years' service the time served before the passage of this act shall be included, as well as time served after the passage hereof. The public board, officer or commission having power of appointment of any such person or having the power to appoint a successor of any such person whom it is sought to remove or whose salary it is sought to reduce, shall formulate or receive charges, in writing, against such person and shall fix a time and a place for a hearing thereon. A written copy of the charges and a written notice of the time and place of the hearing shall be served upon the person sought to be removed at least five days prior to the hearing. At the hearing the public board, officer or commission shall bear all witnesses and receive all evidence produced and if the charges are found to be true in fact and just cause be shown the public board, officer or commission may remove or reduce the salary of the person against whom charges are made.

Source. L. 1941, c. 234, section 1, p. 654. Approved June 28, 1941, effective immediately.

58:11-18.8. Purpose; persons not affected. The purpose of this act (58:11-18.7 et seq.) is to prevent the unwarranted removal or reduction of salary without just cause of the individual who is now or shall hereafter be directly responsible for and in direct charge of the maintenance and operation of public water systems and sewage disposal or treatment plants. This act (58:11-18.7) shall not, however, affect any public officer whose term of office is now or shall hereafter be fixed by statute.

Source. L. 1941, c. 234, section 2, p. 655. Approved June 28, 1941, effective immediately.

58:11-18.9. Private corporations not affected. This act (58:11-18.7 et seq.) shall not apply to private corporations engaged in selling water to the public, either at wholesale or retail or to private corporations owning and operating public sewage disposal or treatment plants.

Source. L. 1941, c. 234, section 4, p. 655, approved June 28, 1941, effective immediately.

Note: L. 1941, c. 234, section 4, p. 655, approved June 28, 1941, effective immediately, provided for the repeal of all acts or parts of acts inconsistent with chapter 234 (58:11-18.7 to 58:11-18.9).

RULES AND REGULATIONS

The State Department of Health of the State of New Jersey pursuant to the authority vested in it by Chapter 177, Laws of 1947, hereby establishes the following Rules and Regulations for the administration of Chapter 23, Laws of 1918, Chapter 206, Laws of 1938, and Chapter 295, Laws of 1946. All prior Rules and Regulations in these matters adopted on various dates by the Department of Health of the State of New Jersey are hereby rescinded.

STATE DEPARTMENT OF HEALTH OF THE STATE OF NEW JERSEY

DANIEL BERGSMA, M.D., M.P.H.,
State Commissioner of Health.

Dated: September 25, 1953.

Filed with the Secretary of State: September 18, 1953.

1. **EXAMINATIONS** for licenses to operate public water treatment plants, public water supply systems, and public sewage treatment plants shall be given semi-annually, in the spring and autumn. The examinations shall be prepared, conducted and graded by persons to be known as a Board of Examiners under the supervision of the Bureau of Examination and Licensing. The board of examiners shall be comprised of certain engineering personnel of the Bureau of Public Health Engineering in the Division of Environmental Sanitation and in the Division of Local Health Services of the State Department of Health of the State of New Jersey and superintendents or operators having at least five years experience in the operation of public water treatment plants, public water supply systems, or public sewage treatment plants, in the State of New Jersey and possessing at least a First Class, Group One or Grade A license at the time of appointment. The members of the board of examiners shall be appointed for a three (3) year term expiring September 30. Not more than three (3) members shall be appointed each year. No member shall serve more than three (3) consecutive terms. The members appointed September 30, 1953, shall be appointed as follows: Three for one year, three for two years and three for three years, and, there shall be equal representation for the State Department of Health, waterworks personnel and sewage works personnel. Appointments shall be made by the State Commissioner of Health. No compensation shall be paid for the services of the members of the board of examiners but they shall be reimbursed for their necessary expenses incurred in performing the services herein pre-

scribed. The board of examiners shall keep minutes of its meetings and it shall transmit its recommendations through the Bureau of Examination and Licensing to the Director of the Division of Environmental Sanitation for his consideration prior to making recommendations to the State Commissioner of Health.

2. APPLICATIONS for admission to examinations shall be made on forms to be furnished by the Department. Applications shall be filed with the Bureau of Examination and Licensing of the Department of Health not later than April 10 or November 10 in order that they may be reviewed by the board of examiners sufficiently in advance of examinations. The Bureau of Examination and Licensing and Board of Examiners shall review all applications received prior to meetings held for that purpose but shall not be obliged to consider applications received after the above prescribed dates.

3. FILING FEE. As provided by R. S. 58:11-18.13 a filing fee of \$2.00 shall accompany each application for admission to an examination.

4. ADMISSION TO EXAMINATIONS shall be dependent upon the information furnished on an application. All applications shall be accompanied by documentary evidence in support of educational and experience qualifications. Applicants shall be advised at least two weeks in advance regarding their admission to an examination.

EDUCATIONAL REQUIREMENTS. Credit toward admission will be given for college training as hereinafter indicated. Special credit will be given for technical college degrees and a New Jersey professional engineer's license. Credit will also be given for applicable special technical or practical studies pursued in vocational schools, college extension courses, and operators' short courses. The limits of allowable substitution of education for experience are indicated in the requirements for each classification of license.

EXPERIENCE. Credit will be given for full time experience obtained in actual operation of a utility such as that to be covered by the license sought. Some credit may be given for experience in allied lines of work. Experience qualifications shall meet the requirements of the State Commissioner of Health. Credit may be given for full time experience through in-service training under a qualified Superintendent or Operator in charge having a license issued by the Department.

5. LICENSES. Applicants who attain the passing grade of seventy per cent in their examinations will be notified as soon as the grades are completed and a license will be issued to each successful applicant upon his payment of the balance of the required license fee; R. S. 58:11-

18.13. The Department will give one notice to a successful applicant, but will not be obliged to issue a license if the required license fee is not paid within three months after such notification.

6. LIMITATION OF LICENSES. Licenses shall be classified as hereinafter provided. The Department shall determine the classification of license required in the operation of each public water treatment plant, public water supply system, and public sewage treatment plant in the State. No licensee shall serve as the superintendent or operator of a public water treatment plant, public water supply system, or public sewage treatment plant at which the classification of license required is not covered by the license held by the licensee. Violation of this regulation shall be considered sufficient grounds for the revocation of a license.

7. PERMISSION TO OPERATE MORE THAN ONE UTILITY must be obtained from the Department. In general, no licensee may operate more than two plants, or two water supply systems, or one plant and one system, in addition to his primary employment as a licensee. The Department reserves the right to limit a licensee more stringently as in its judgment may be advisable. Permits granted under this regulation shall be for a limited time, not to exceed one year, and renewal for an additional year will be at the discretion of the Department. Employers who avail themselves of the services of licensees under this section shall make every reasonable effort to secure the permanent services of a licensee and submit within three months from date of permit the name of a trainee or trainees who it is proposed will become licensed prior to the terminal date of such permit.

8. WATER TREATMENT PLANTS REQUIRING THE VARIOUS CLASSIFICATIONS OF LICENSES TO OPERATE WATER TREATMENT PLANTS AND THE REQUIRED QUALIFICATIONS FOR ADMISSION TO EXAMINATIONS

FIRST CLASS. All water treatment plants employing sedimentation and/or coagulation, filtration and disinfection in the treatment of approximately 5.0 million gallons per day or more; and all other treatment plants employed in the treatment of more than 10.0 million gallons per day.

SECOND CLASS. All water treatment plants employing sedimentation and/or coagulation, filtration and disinfection in the treatment of less than 5.0 million gallons per day and all other treatment plants employed in the treatment of approximately 5.0 million gallons per day to approximately 10.0 million gallons per day except as provided under "First Class".

THIRD CLASS. All water treatment plants employed in the treatment of surface water supplies of less than 5.0 million gallons per day except as provided under Second Class; and all other water treatment plants employed in the treatment of approximately 1.0 to approximately 5.0 million gallons per day except as provided under Second Class.

FOURTH CLASS. All water treatment plants employed in the treatment of less than approximately 1.0 million gallons per day except as otherwise provided under Second, Third and Fifth Classes.

FIFTH CLASS. All water treatment plants employing disinfection in the treatment of less than approximately 25,000 gallons per day, from which water is conveyed to a public school only. Fifth Class licenses shall be limited in their use to the particular water treatment plant to which they apply.

QUALIFICATIONS. See Section 4 hereof and charts on Pages 13 and 14. Educational requirements and/or experience acceptable to the Department.

9. WATER SUPPLY SYSTEMS REQUIRING THE VARIOUS CLASSIFICATIONS OF LICENSES TO OPERATE WATER SUPPLY SYSTEMS AND THE REQUIRED QUALIFICATIONS FOR ADMISSION TO EXAMINATIONS.

GROUP 1. All water supply systems delivering more than 10.0 million gallons per day.

GROUP 2. All water supply systems delivering approximately 5.0 million gallons per day to approximately 10.0 million gallons per day.

GROUP 3. All water supply systems delivering approximately 1.0 million gallons per day to approximately 5.0 million gallons per day.

GROUP 4. All water supply systems delivering less than approximately 1.0 million gallons per day except as provided under Group S.

QUALIFICATIONS. See Section 4 hereof and charts on Pages 13 and 14. Educational requirements and/or experience acceptable to the Department.

GROUP S. All water supply systems delivering water to not more than approximately 50 services and such other systems as the Department may deem as not requiring a higher classification of license. Group S Licenses shall be limited in their use to the particular water supply system to which they apply.

QUALIFICATIONS. See Section 4 hereof and charts on Pages 13 and 14. Educational requirements and/or experience acceptable to the Department.

10. SEWAGE TREATMENT PLANTS REQUIRING THE VARIOUS CLASSIFICATIONS OF LICENSES TO OPERATE SEWAGE TREATMENT PLANTS AND THE REQUIRED QUALIFICATIONS FOR ADMISSION TO EXAMINATIONS.

GRADE A

1. All plants with approved capacities of more than 10.0 million gallons per day.

2. All activated sludge plants with approved capacities of more than 500,000 gallons per day.

3. All plants discharging to potable waters, or bathing or shellfish waters, which the Department is of the opinion may be affected thereby:

- (a) Employing sedimentation and separate sludge conditioning and oxidation; or, separate sludge conditioning and disinfection; or, oxidation and disinfection with approved capacities of 5.0 to 10.0 million gallons per day.
- (b) Employing sedimentation, separate sludge conditioning, oxidation and disinfection with approved capacities of 1.0 to 10.0 million gallons per day.

GRADE B

1. All activated sludge plants with approved capacities of not more than 500,000 gallons per day.

2. All plants discharging to potable waters, or bathing or shellfish waters, which the Department is of the opinion may be affected thereby:

- (a) Employing sedimentation and/or screening only and having approved capacities of 5.0 to 10.0 million gallons per day.
- (b) Employing sedimentation and separate sludge conditioning or oxidation or disinfection with approved capacities of 5.0 to 10.0 million gallons per day.
- (c) Employing sedimentation and separate sludge conditioning and oxidation; or, separate sludge conditioning and disinfection; or, oxidation and disinfection with approved capacities of 500,000 gallons to 5,000,000 gallons per day.
- (d) Employing sedimentation, separate sludge conditioning, oxidation and disinfection with approved capacities of 500,000 gallons to 1,000,000 gallons per day.

3. All plants not discharging to potable waters, or bathing or shellfish waters, as aforesaid:

Employing sedimentation, separate sludge conditioning, oxidation and disinfection; or, sedimentation and any two of the three said processes with approved capacities of 5.0 to 10.0 million gallons per day.

GRADE C

1. All plants discharging to potable waters, or bathing or shellfish waters, which the Department is of the opinion may be affected thereby:

- (a) Employing sedimentation and/or screening only with approved capacities of 1.0 to 5.0 million gallons per day.
- (b) Employing sedimentation and separate sludge conditioning or oxidation or disinfection with approved capacities of 500,000 gallons to 5,000,000 gallons per day.
- (c) Employing sedimentation, separate sludge conditioning, oxidation, and disinfection; or, sedimentation and any two of the three said processes with approved capacities of 100,000 to 500,000 gallons per day.

2. All plants not discharging to potable waters, or bathing or shellfish waters, as aforesaid:

- (a) Employing sedimentation and separate sludge conditioning or oxidation or disinfection with approved capacities of 5.0 to 10.0 million gallons per day.
- (b) Employing sedimentation, separate sludge conditioning, oxidation, and disinfection; or, sedimentation and any two of the three said processes with approved capacities of 500,000 gallons to 5,000,000 gallons per day.

GRADE D

1. All plants discharging to potable waters, or bathing or shellfish waters, which the Department is of the opinion may be affected thereby:

- (a) Employing sedimentation and/or screening only and having approved capacities of 50,000 gallons to 1,000,000 gallons per day.
- (b) Employing sedimentation and separate sludge conditioning or oxidation or disinfection with approved capacities of 50,000 to 500,000 gallons per day.
- (c) Employing sedimentation, separate sludge conditioning, oxidation, and disinfection; or sedimentation and any two of the three said processes with approved capacities of 50,000 to 100,000 gallons per day.

2. All plants not discharging to potable waters, or bathing or shellfish waters, as aforesaid:

- (a) Employing sedimentation and/or screening only and having approved capacities of 5.0 to 10.0 million gallons per day.
- (b) Employing sedimentation and separate sludge conditioning or oxidation or disinfection with approved capacities of 50,000 gallons to 5,000,000 gallons per day.
- (c) Employing sedimentation, separate sludge conditioning, oxidation, and disinfection; or, sedimentation and any two of the three said processes with approved capacities of 50,000 to 500,000 gallons per day.

GRADE S. All plants, except activated sludge, with approved capacities of less than 50,000 gallons per day; all industrial waste plants; and, all other plants which, in the opinion of the Department, are within this classification. Grade S Licenses shall be limited in their use to the particular sewage treatment plant to which they apply.

QUALIFICATIONS. See Section 4 hereof and charts on Pages 13 and 14. Educational requirements and/or experience acceptable to the Department.

11. EXISTING LICENSES. Nothing herein shall affect the status of any license issued prior to the enactment of these Rules and Regulations.

12. AMENDMENTS. These Rules and Regulations are to be construed as minimum requirements and they may be supplemented or amended from time to time as the State Commissioner of Health may direct.

13. WEIGHTED RATINGS OF EXAMINATIONS. The following weighted ratings shall be used in grading examinations under these Rules and Regulations:

WATER TREATMENT PLANT LICENSES

	Experience & Education	Written	Oral
First Class	20%	50%	30%
Second Class	20%	60%	20%
Third Class	25%	55%	20%
Fourth Class	30%	45%	25%
Fifth Class	10%	70%	20%

WATER SUPPLY SYSTEM LICENSES

	Experience & Education	Written	Oral
Group 1	20%	50%	30%
Group 2	20%	60%	20%
Group 3	25%	55%	20%
Group 4	30%	45%	25%
Group S	20%	60%	20%

SEWAGE TREATMENT PLANT LICENSES

	Experience & Education	Written	Oral
Grade A	20%	50%	30%
Grade B	20%	60%	20%
Grade C	25%	55%	20%
Grade D	30%	45%	25%
Grade S	10%	70%	20%

EXAMINATION ADMITTANCE REQUIREMENTS	EDUCATIONAL REQUIREMENTS	FULL TIME OPERATING EXPERIENCE
LICENSE CLASSIFICATIONS		
FIRST CLASS WATER TREATMENT GROUP ONE WATER SUPPLY GRADE A SEWAGE DISPOSAL PLANT	1. College Degree in Sciences or 2. Prof. Engineers License—Six Years or 3. High School Graduate with Completion of Technical Short Courses or Correspondence Courses or 4. High School Education or Equivalent	and 1. Two years or 2. Two years or 3. Four years or 4. Five years
SECOND CLASS WATER TREATMENT GROUP TWO WATER SUPPLY GRADE B SEWAGE DISPOSAL PLANT	1. College Degree in Sciences or 2. Prof. Engineers License—Four Years or 3. High School Graduate with Completion of Technical Short Courses or Correspondence Courses or 4. High School Education or Equivalent	and 1. One year or 2. One year or 3. Three years or 4. Four years

EXAMINATION ADMITTANCE REQUIREMENTS	EDUCATIONAL REQUIREMENTS	FULL TIME OPERATING EXPERIENCE
LICENSE CLASSIFICATIONS THIRD CLASS WATER TREATMENT GROUP THREE WATER SUPPLY GRADE C SEWAGE DISPOSAL PLANT	1. College Degree in Sciences or 2. Prof. Engineers License—Two years or 3. High School Graduate with Completion of Technical Short Courses or Correspondence Courses 4. High School Graduate or 5. Grammar School Completion	and 1. One year or 2. One year or 3. Two years and 4. Three years or 5. Four years
FOURTH CLASS WATER TREATMENT GROUP FOUR WATER SUPPLY GRADE D SEWAGE DISPOSAL PLANT	1. College Degree in Sciences or 2. Prof. Engineers License—One Year or 3. High School Graduate with Completion of Technical Short Courses or Correspondence Courses 4. High School Graduate or 5. Grammar School Completion	and 1. Six months or 2. Six months or 3. One year and 4. Two years or 5. Three years
FIFTH CLASS WATER TREATMENT GROUP S WATER SUPPLY GRADE S DISPOSAL PLANT OR INDUSTRIAL WASTES	Educational and Operating Experience Acceptable to the Department.	

**CLASSIFICATION OF LICENSES REQUIRED
AT SEWAGE TREATMENT PLANTS
NOT DISCHARGING EFFLUENTS TO POTABLE, SHELLFISH, OR BATHING WATERS**

(See Text)

METHODS OF TREATMENT	DESIGN CAPACITY	DAILY FLOW	SEWAGE FLOW
	More than 5.0 to 10.0 millions	500,000 to 1.0 millions	100,000 to 500,000
	5.0 to 10.0 millions	1.0 to 5.0 millions	50,000 to 100,000
	Less than 5.0 millions	Less than 1.0 millions	Less than 50,000 and*
Sedimentation and/or Screening	A	D	D
Sedimentation and (separate sludge conditioning, or oxidation, or disinfection)	A	D	D
Sedimentation, separate sludge conditioning and (oxidation or disinfection); sedimentation, oxidation and disinfection	A	C	D
Sedimentation, separate sludge conditioning, oxidation, and disinfection	A	B	D
Activated Sludge	A	A	B

* All industrial waste plants; and, all other plants which, in the opinion of the Department, are within this classification.

**CLASSIFICATION OF LICENSES REQUIRED
AT SEWAGE TREATMENT PLANTS
DISCHARGING EFFLUENTS TO POTABLE, SHELLFISH, OR BATHING WATERS**

(See Text)

METHODS OF TREATMENT	DESIGN CAPACITY	DAILY SEWAGE	FLOW
	More than 5.0 to 10.0 millions	100,000 to 500,000	Less than 50,000 and*
Sedimentation and/or Screening	A B C	D D D	D S
Sedimentation and (separate sludge conditioning, or oxidation, or disinfection)	A B C	C D D	S S
Sedimentation, separate sludge conditioning and (oxidation or disinfection); sedimentation, oxidation and disinfection	A A B	B C D	S S
Sedimentation, separate sludge conditioning, oxidation, and disinfection	A A A	B C C	S S
Activated Sludge	A A A	A B B	B B B

* All industrial waste plants; and, all other plants which, in the opinion of the Department, are within this classification.

Supplemental Information
For
Rules and Regulations
on
Licensing
of
Superintendents or Operators

The following information has been prepared in order to assist candidates in preparing for licensure examinations.

What a Candidate for Public Water Supply System License Should Know

1. Statutes Pertinent to Water Supplies.
2. Statutes Pertinent to Licensing of Operators.
3. Water Meter Testing, Maintenance and Operation.
4. Water Analysis and Interpretation.
5. Ability to Compute and Analyze Mathematical Data.
6. Knowledge of Water Supply Administration.
7. Knowledge of Electrical Motors and Pumps.
8. Principles of Fluoridation.
9. Corrosion Problems.
10. Pipe Line Hydraulics and Maintenance.
11. Water Well Maintenance and Operation.
12. Cross-Connections.
13. Elementary Bacteriology and Chemistry.
14. Public Health Considerations of Water Supplies.

The aforementioned items are to be considered as a general guide for candidates in preparing for Water Supply System Operator examination. However, it is expected all candidates will prepare themselves by studying and reviewing all aspects of water works operations. The higher grade examinations may receive fewer questions but of a more difficult nature, whereas lower grades have been designed to meet the more elementary aspects of water works operations.

What a Candidate for Public Water Treatment Plant License Should Know

1. Statutes Pertinent to Water Supplies.
2. Statutes Pertinent to Licensing of Operators.
3. Water Analysis and Interpretation.
4. Knowledge of Water Treatment Plant Layout.
5. Ability to Compute and Analyze Mathematical Data.
6. Bacteriology and Chemistry.
7. Principles of Fluoridation.
8. Principles of Sedimentation, Coagulation, Filtration and Disinfection.
9. Water Softening Methods.
10. Laboratory Procedures.
11. Watershed Control.
12. Public Health Aspects of Water Treatment.

13. Taste and Odor Control.
14. Water Works Administration.
15. Monthly Records and Reports.

The aforementioned items are to be considered as a general guide for candidates in preparing for Water Treatment Plant Operator examination. However, it is expected all candidates will prepare themselves by studying and reviewing all aspects of water works operations. The higher grade examinations may receive fewer questions but of a more difficult nature, whereas lower grades have been designed to meet the more elementary aspects of water works operations.

What a Candidate for Public Sewage Treatment Plant License Should Know.

1. Statutes Pertinent to Stream Pollution and Sewage Facilities.
2. Statutes Pertinent to Licensing of Operators.
3. Description of Treatment Facilities being Operated by Candidate.
4. Definitions of Commonly Used Sewerage Terms.
5. Computation and Analysis of Mathematical Data.
6. Principles of Sedimentation, Filtration, Chemical Treatments, Activated Sludge*, Sludge Digesting, Handling, Conditioning and Disinfection.
7. Laboratory Procedures, Field Tests and Interpretations.
8. Bacteriology, Chemistry and Biochemistry.
9. Public Health Aspects of Sewage Treatment.
10. Sewerage Facilities Administration Aspects.
11. Treatment Plant Operating Difficulties, Causes and Remedies.
12. Monthly Records and Reports.

*Knowledge on principles of activated sludge are not required of Grade C and D operator candidates.

The aforementioned items are to be considered as a general guide for candidates in preparing for Sewage Treatment Plant Operator examination. However, it is expected all candidates will prepare themselves by studying and reviewing all aspects of sewage works operations. The higher grade examinations may receive fewer questions but of a more difficult nature, whereas lower grades have been designed to meet the more elementary aspects of sewage works operations.