

ALASKA LEGISLATURE COMMITTEE FILES 1903-1900 00/2

4074 SJUD SB 194

950



# RECORDS CERTIFICATION



I, the undersigned, an employee of the State of Alaska, do hereby certify that the microfilm images on this microform are accurate reproductions of the original records of the State of Alaska as accumulated during the regular course of business, and that it is the established policy and practice of this State to microfilm its records and to dispose of the original records after microfilm reproductions have been made.

*James O. Smith*  
Signature of Camera Operator

*11/7/89*  
Date

S B

1 2 3 4



# STATE OF ALASKA 1986 LEGISLATIVE SESSION FISCAL NOTE

Revision Date : 1/23/86

**REQUEST**

Bill/Resolution No. : CSSB 194 (Res)  
 Title : Certification of water and  
 wastewater systems and facilities  
 operators  
 Sponsor : Senate Rules for Governor  
 Requestor : \_\_\_\_\_  
 Date of Request : \_\_\_\_\_

**FISCAL DETAIL**

Agency Affected : ADEC  
 BRU : Facilities Construction & Operation  
 \_\_\_\_\_  
 Components : \_\_\_\_\_  
 \_\_\_\_\_

**EXPENDITURES/REVENUES : (The isands of Dollars)**

OPERATING	FY 86	FY 87	FY 88	FY 89	FY 90	FY 91
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
<b>TOTAL OPERATING</b>	0	0	0	0	0	0

CAPITAL	0	0	0	0	0	0
---------	---	---	---	---	---	---

REVENUE	0	0	0	0	0	0
---------	---	---	---	---	---	---

**FUNDING : (Thousands of Dollars)**

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
<b>TOTAL</b>	0	0	0	0	0	0

**POSITIONS : none**

FULL-TIME						
PART-TIME						
TEMPORARY						

**ANALYSIS : Attach a separate page if necessary**

Prepared by : Billie Trent Phone : 465-2600  
 Division : Office of the Commissioner Date : 1/23/86  
 Approved by Commissioner : Bill Ross *Bill Ross* Date : 1/23/86  
 Agency : Department of Environmental Conservation

**Distribution (by Agency preparing fiscal note) :**

- Legislative Finance
- Legislative Sponsor
- Requestor
- Office of Management and Budget
- Impacted Agency(ies)

STATE OF ALASKA 1985 LEGISLATIVE SESSION  
FISCAL NOTE

Revision Date: \_\_\_\_\_

REQUEST

Bill/Resolution No.: SB 194  
 Title: Certification of Water/  
 Wastewater Facilities Operators  
 Sponsor: Senate Rules Committee  
 Requestor: Governor  
 Date of Request: 2/19/85

FISCAL DETAIL

Agency Affected: Environmental Conservation  
 Program Category Affected: Water/Wastewater  
 Operator Certification  
 BRU, Program or Subprogram(s) Affected:  
Facility Construction & Operation  
NRMEC

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 85	FY 86	FY 87	FY 88	FY 89	FY 90
<b>OPERATING</b>						
100 PERSONAL SERVICES						
200 TRAVEL						
300 CONTRACTUAL						
400 SUPPLIES						
500 EQUIPMENT						
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS						
800 MISCELLANEOUS						
<b>TOTAL OPERATING</b>	0	0	0	0	0	0
<b>CAPITAL</b>	0	0	0	0	0	0
<b>REVENUE</b>	0	0	0	0	0	0

FUNDING: (Thousands of Dollars)

GENERAL FUND	0					
FEDERAL FUNDS	0					
OTHER	0					
<b>TOTAL</b>	0					

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS: Attach a separate page if necessary

Prepared By: LINDA TAYLOR Phone: 415-2620  
 Division: FACILITY CONSTRUCTION & OP Date: 2/19/85  
 Approved by Commissioner: Bill Km Date: 2/21/85  
 Agency: ADEC

Distribution (by Agency preparing fiscal note):

- Legislative Finance
- Legislative Sponsor
- Requestor
- Office of Management and Budget
- Impacted Agency(ies)

7/1/84

MAY 01 1985

BILL SHEFFIELD, GOVERNOR

**DEPT. OF ENVIRONMENTAL CONSERVATION**

OFFICE OF THE COMMISSIONER  
POUCH O  
JUNEAU, ALASKA 99811

Telephone: (907)  
Address:  
(907) 465-2600

April 30, 1985

The Honorable Arliss Sturgulewski  
Senator  
Alaska State Legislature  
Pouch V  
Juneau, Alaska 99811

Dear Senator Sturgulewski:

I draw your attention to SB 194, which was referred to Senate Resources in late February. That bill relates to certification of water and wastewater system operators and was drafted when our attorney discovered errors in 18 AAC 74.030 that had gone undetected since 1978. Those errors resulted in the certification of approximately 60 persons who would have otherwise been required to take the state examination.

It is, of course, mandatory that we amend our regulations to accurately reflect the law, but absent the passage of SB 194, such amendments could jeopardize the livelihood of the 60 individuals who have relied since 1978 on the accuracy of the regulations. Those persons who were erroneously certified are, nonetheless, fully qualified to continue working as operators. A class action lawsuit has been threatened if we fail to honor the certifications, and under the doctrine of equitable estoppel, they would probably prevail.

I would appreciate very much your using your good offices to see that this bill is addressed by the Legislature, preferably this session. Other significant amendments to our regulations may have to be put on hold until this bill is passed.

Sincerely,



Bill Ross  
Commissioner

WRR:BT

cc: Thomas M. Jahnke, Esq.  
Linda Taylor  
Billie Trent

SENATE BILL 194

Amendment in the Senate Resources Committee

January 17, 1986

by Gruenberg and Jenkins

1. Add a new section as follows:

Section 1. AS 46.30.060 is amended to read:

Sec. 46.30.060. CERTIFICATION. The department shall issue certification entitling those persons who successfully complete the required examinations to supervise the operation of portable water supply and wastewater systems and facilities after considering the recommendations of the advisory board. The certificate will designate the class of system for which the operator is qualified in accordance with the classification system of the department. The certificate shall be valid for three years unless revoked for cause or [,] replaced by one of a higher grade [, OR THE OPERATOR FOR A CONTINUOUS PERIOD OF ONE YEAR HAS NOT BEEN ACTIVELY ENGAGED IN THE DUTIES AUTHORIZED BY THE CERTIFICATE. AN OPERATOR WHOSE CERTIFICATE HAS BEEN INVALIDATED FOR NOT HAVING BEEN ACTIVELY ENGAGED IN THE DUTIES AUTHORIZED MAY BE ISSUED A NEW CERTIFICATE UPON PROOF OF COMPETENCY AS PRESCRIBED BY REGULATIONS].

2. Renumber other sections accordingly.

# STATE OF ALASKA 1986 LEGISLATIVE SESSION FISCAL NOTE

Revision Date : 1/15/86

**REQUEST**

Bill/Resolution No. : HR 450  
 Title: Certification of water and wastewater operators  
 Sponsor : Gruenberg and Jenkins  
 Requestor : Gruenberg  
 Date of Request : 1/14/86

**FISCAL DETAIL**

Agency Affected : ADEC  
 BRU : Facilities Construction & Operation  
 Components : \_\_\_\_\_

**EXPENDITURES/REVENUES : (Thousands of Dollars)**

OPERATING	FY 86	FY 87	FY 88	FY 89	FY 90	FY 91
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
<b>TOTAL OPERATING</b>	0	0	0	0	0	0

<b>CAPITAL</b>	0	0	0	0	0	0
----------------	---	---	---	---	---	---

<b>REVENUE</b>	0	0	0	0	0	0
----------------	---	---	---	---	---	---

**FUNDING : (Thousands of Dollars)**

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
<b>TOTAL</b>	0	0	0	0	0	0

**POSITIONS : NONE**

FULL-TIME						
PART-TIME						
TEMPORARY						

**ANALYSIS :** Attach a separate page if necessary

Prepared by : Billie Trent Phone : 465-2600  
 Division : Office of the Commissioner Date : 1/15/86

Approved by Commissioner : Bill Ross Date : 1/15/86  
 Agency : Department of Environmental Conservation

Distribution (by Agency preparing fiscal note) :  
 Legislative Finance  
 Legislative Sponsor  
 Requestor  
 Office of Management and Budget  
 Impacted Agency(ies)

BILL SHEFFIELD, GOVERNOR

**DEPT. OF ENVIRONMENTAL CONSERVATION**

OFFICE OF THE COMMISSIONER  
POUCH O, JUNEAU, AK 99801

Telephone: (907) 465-2600  
Address:

April 22, 1985

The Honorable Max F. Gruenberg, Jr.  
Alaska State House  
Pouch V  
Juneau, AK 99811

Dear Representative Gruenberg:

This is in response to your inquiry about renewal of certification of water/ wastewater operators. At present, this department administers the certification of operators as directed by State statute passed in 1976 (AS.03.060). This includes the requirement to revoke the certificate of an operator who "has not actively engaged in the duties authorized by the certificate" for a continuous period of one year.

An operator may regain certification by taking an examination on the next scheduled examination date, or by appealing to the Water/Wastewater Advisory Board. If the operator is still unemployed after taking an examination, a letter is issued stating the person has passed an examination and that upon employment in an Alaskan water/wastewater system, a certificate will be issued. After 12 months the records are returned to the individual who must then reapply for certification.

As stated in 18 AAC 74.140(2) and (4) "Duties of the Water and Wastewater Board include making recommendations to the Department on issuance, cancellation, invalidation and revocation of certificates."

In addition, the Board reviews "qualifications of applicants for examination and/or certification in cooperation with the Department or at the request of the applicant."

During the March 15, 1985, Board meeting, two operators appealed to the Board to regain their certification. A decision was made in both cases concerning reinstatement of certification. The minutes of that meeting are enclosed.

18 AAC 74.100 (b) applies only to those operators whose certification has been revoked for a cause, not to unemployed operators. Those operators whose certificates have been revoked may still appeal to the board to regain certification before the revocation is final. The Board may reinstate certification if it finds no fraud or deceit in obtaining the certificate or in plant record keeping, gross negligence on the part of the operator, or violations of regulations or statute requirements.

*Exhibit "A" - 1*

Max Gruenberg

-2-

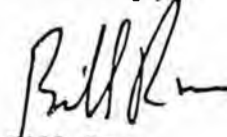
April 22, 1985

The one year break in service item could be a hardship on some operators who, because of sickness or additional formal education (to name only two), stay out of water and wastewater operations for more than 12 months. This department would support revocation of that section. However, I would like to emphasize that certification applies only to persons who are operators of water or wastewater systems. Certification should not be for persons not engaged in actual operation of a system; such as trainers, engineering consultants, or laboratory personnel. These people do not actually operate a system and do not plan to make a career of operations.

I do not believe the statutes and regulations apply to those people.

Again, this department would support a change in Section 46.30.060 of Chapter 30 which deletes the sentence pertaining to one year break in service.

Sincerely,



Bill Ross  
Commissioner

Enclosures

BR:LT:jh

*Exhibit "A" - 2*

BILL SHEFFIELD, GOVERNOR

**DEPT. OF ENVIRONMENTAL CONSERVATION**

OFFICE OF THE COMMISSIONER  
POUCH O, JUNEAU, ALASKA 99811

Telephone: (907)  
Address:

(907) 465-2600

September 25, 1985

OCT 02 '85

The Honorable Max Gruenberg  
Alaska State House  
914 Clay Court  
Anchorage, AK 99503

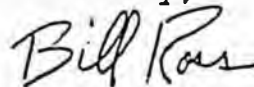
AS 46.30.060

Dear Representative Gruenberg:

Thank you for the opportunity to review the draft legislation concerning the certification of water and wastewater operators.

The Department will support the amendment to AS 46.30.060 which deletes the requirement that would invalidate the certificate of an operator who had not been actively engaged in his or her duties for a continuous period of one year.

Sincerely,



Bill Ross  
Commissioner

Exhibit "B"

combination of municipalities, which has received a construction grant offer for a water, sewerage, or solid waste system:

(6) "professional engineer" means an engineer registered in the state in accordance with AS 08.48.221;

(7) "start of construction" means the issuance to a contractor of a notice to proceed with construction;

(8) "storm sewer system" means pipelines or conduits, pumping stations, and force mains, and all other appurtenant construction, devices, and appliances used for conducting storm water drainage and runoff to a point of ultimate disposal or discharge;

(9) "water supply system" means any source of water, intake works, collection system, treatment works, storage facility, or distribution system from which water is available for two or more individual dwellings or business establishments. (Eff. 12/10/77, Reg. 64; am 6/11/81, Reg. 78)

Authority: AS 46.03.020(10)  
AS 46.03.030

## CHAPTER 74. WATER AND WASTEWATER OPERATOR CERTIFICATION AND TRAINING

### Section

- 10. General provisions
- 20. Certification requirements
- 30. Certification without examination
- 40. Examination requirements
- 50. Experience and education requirements
- 60. Display of certificates
- 70. Certificate term and renewal
- 80. Lapsed certificates
- 90. (Repealed)
- 100. Revocation of certificates
- 110. Temporary certification
- 120. Classification of water supply systems and wastewater systems
- 130. Training
- 140. Duties of the water and wastewater works advisory board
- 150. Composition of the water and wastewater works advisory board
- 160. Appeals
- 900. Definitions

18 AAC 74.010. GENERAL PROVISIONS.  
After September 24, 1978, all water supply systems and wastewater systems, whether publicly or privately owned, which serve 100 or more service connections or are used or intended for use by 500 or more persons per day, must be under the supervision of an operator certified by the department as follows:

(1) An operator in responsible charge of a system must be certified at a level corresponding to the classification of the system under his responsibility.

(2) An operator in responsible charge of an operating shift of a system must be certified at no less than one level below that corresponding to the classification of the system under his responsibility.

(3) An operator in responsible charge of more than one system must be certified at a level corresponding to the highest individual classification of the systems under his responsibility. (Eff. 8/21/78, Reg. 67)

Authority: AS 46.30.040 AS 46.30.080(3)  
AS 46.30.080(1) AS 46.30.080(5)

**18 AAC 74.020. CERTIFICATION REQUIREMENTS.** (a) No person will be certified under this chapter unless an appropriate application has been submitted to the department on forms provided by the department.

(b) The department will certify an applicant if it finds that the applicant has either met the conditions of 18 AAC 74.030, or has satisfied the examination requirements of 18 AAC 74.040 and the experience and education requirements of 18 AAC 74.050. (Eff. 8/21/78, Reg. 67)

Authority: AS 46.30.080(2)

**18 AAC 74.030. CERTIFICATION WITHOUT EXAMINATION.** The department, in its discretion, will issue certificates without regard to the requirements of 18 AAC 74.040 - 18 AAC 74.050 if the applicant

(1) has been verified by the owner of the system or by the Alaska Water Management Association to have been an operator of a water supply system or wastewater system on September 24, 1978; certificates issued under this subsection will have "examination waiver" printed on the certificate, and will authorize the holder to continue operation of the system for which verification was made under this subsection; an operator certified under this section may request to have the certificate transferred to another system of the same classification or to a system of lower classification; the department, in its discretion, will grant the request if the system for which the transfer is sought is substantially similar to the system from which the transfer is being made; the department will consider the recommendation of the board before making a determination on a request under this subsection;

(2) holds a valid certificate issued under the Alaska Water Management Association voluntary certification program on or before September 24, 1978; or

(3) holds a current certificate issued by any state, territory or possession of the United States, if that jurisdiction's certification requirements and examinations are comparable to those of the State of Alaska and that

reciprocal privileges are granted by that jurisdiction to operators certified by the State of Alaska. (Eff. 8/21/78, Reg. 67)

Authority: AS 46.30.070  
AS 46.30.080(3)  
AS 46.30.100

18 AAC 74.040. EXAMINATION REQUIREMENTS. (a) Applications for certification must be submitted to the department at least 60 days before the date set for an examination.

(b) An application must be filed for the level of certification requested.

(c) The department will notify the applicant regarding eligibility for examination.

(d) An applicant who fails to appear for a certification examination must file a new application to be eligible for another scheduled examination.

(e) Examinations will be held at least annually at times and locations announced by the department. The department will, in its discretion, designate representatives to act as proctors in administering the examinations.

(f) The department, in its discretion, will conduct oral or practical examinations instead of, or to augment, the written examination. Before conducting oral or practical examinations, the department will notify the board, which must have one or more members present during the oral or practical examination. A certificate issued following an oral or practical examination will apply only to the system which the applicant is operating at the time of examination.

(g) Examinations will be graded by the department and each applicant notified of the results within 60 days. Examinations will not be mailed to the applicant; however, the applicant may review the examination results with the department.

(h) Applicants who fail an examination may reapply and retake the examination at another scheduled examination date. (Eff. 8/21/78, Reg. 67)

Authority: AS 46.30.050  
AS 46.30.080(3)

18 AAC 74.050. EXPERIENCE AND EDUCATION REQUIREMENTS. (a) Criteria used by the department to evaluate experience

and education qualifications of operators are contained in Table A.

TABLE A -  
MINIMUM PERSONNEL EDUCATION AND EXPERIENCE REQUIREMENTS (IN YEARS)

System Type	Operator Level											
	Operator in Training		I		II		III			IV		
	Op. Educ.	Op. Exp.	Op. Educ.	Op. Exp.	Op. Educ.	Op. Exp.	Op. Educ.	Resp. Charge Exp.	Op. Educ.	Resp. Charge Exp.	Op. Educ.	Resp. Charge Exp.
Wastewater Collection	12	*	12	1	12	4	-	-	-	-	-	-
Wastewater Treatment	12	*	12	1	12	3	14	4	(2)	16	4	(2)
Water Distribution	12	*	12	1	12	4	-	-	-	-	-	-
Water Treatment	12	*	12	1	12	3	14	4	(2)	16	4	(2)

\*Three months' operating experience or satisfactory completion of a basic training course approved in writing by the department.

Abbreviations

Educ.—Education                      Op.—Operator                      Exp.—Experience                      Resp.—Responsible

(1) For level I certification, the minimum experience requirement is one year of experience in the appropriate type of system, without substitution;

(2) For levels II, III, and IV certification, substitutions under (b) of this section may be made for up to 50 percent of the minimum experience requirements (both operating and responsible charge); the remainder of the experience requirements must be met by actual on-site operating experience in the appropriate type of system;

(3) Experience requirements must be met under the supervision of a certified operator or through an organized on-the-job training program;

(4) The department will issue a conditional

level III certificate to allow a level II operator to accumulate responsible charge experience, if an application has been submitted to the department and the applicant has satisfied the level III examination and operating experience requirements. A certificate issued under this paragraph is valid for one year and is renewable for a maximum of one year upon approval by the department; the certificate will be valid only for the system which the applicant is operating at the time of application;

(5) At least half of the operating experience requirement for level III certification must be achieved through operating experience with a level II or higher system;

(6) At least half of the operating experience requirement for level IV certification must be achieved through operating experience with a

level III or higher system;

(7) In smaller systems without shift operation, responsible charge experience is active, daily, on-site charge and performance of operation duties in a system in the next lower classification; and

(8) In larger systems with shift operation, responsible charge experience is both daily, on-site technical direction and supervision of operation duties in a system in the next lower classification, and active, daily, on-site charge of an operating shift, or a major segment of a system, in the same or next lower classification.

(b) Substitutions under (a)(2) of this section may be made under following criteria:

(1) High school education may not be substituted for experience.

(2) Relevant postsecondary education as approved by the department may be substituted for operating or responsible charge experience. The rate of exchange of education for experience is one year of experience for each year of relevant full-time postsecondary education successfully completed by the applicant.

(3) Education used to substitute for an operating experience requirement may not also be applied to the education requirement.

(4) One year of operating or responsible charge experience may be substituted for either two years of elementary school education with no limitation, or one year of high school education with no limitation.

(5) A maximum of one year of responsible charge experience in a class II or higher system may be substituted for one year of the postsecondary educational requirement for level III certification.

(6) A maximum of one year of responsible charge experience in a class III or higher system may be substituted for one year of the postsecondary educational requirement for level IV certification.

(7) Experience substituted for an educational

requirement may not also be applied toward meeting the operating or responsible charge experience requirements.

(8) Forty-five continuing education units (CEU's) in relevant specialized operator training or education may be used to satisfy one year of the educational requirement or one year of operating or responsible charge experience. Ten hours of department approved course work equals one CEU. (Eff. 8/21/78, Reg. 67)

Authority: AS 46.30.080(2)

**18 AAC 74.060. DISPLAY OF CERTIFICATES.** Certificates must be displayed in the plant or utility office of the operator. (Eff. 8/21/78, Reg. 67)

Authority: AS 46.30.060

**18 AAC 74.070. CERTIFICATE TERM AND RENEWAL.** (a) The term for certificates and renewals will be from the first of January of the year of issuance until December 31 three years later.

(b) The department will send each holder of a certificate a renewal notice at least 60 days before the expiration date of the certificate. Notice will be mailed to the last address of record. Failure to receive notice does not relieve the holder of his responsibility to renew the certificate.

(c) Upon receipt of a valid and timely request for renewal, the department will issue a renewal certificate. (Eff. 8/21/78, Reg. 67)

Authority: AS 46.30.060

AS 46.30.080(3)

**18 AAC 74.080. LAPSED CERTIFICATES.** (a) The department will renew certificates for which timely application for renewal was not made under 18 AAC 74.070 if an application for renewal is received within 180 days after the expiration of the certificate.

(b) The department will, in its discretion, require reexamination of an operator if a renewal application is received more than 180 days after the expiration of the certificate. The department will consider the recommendations of the board in determining the need for examination of an operator whose certificate has

lapsed under this section. (Eff. 8/21/78, Reg. 67)

Authority: AS 46.30.080(3)

18 AAC 74.090. CANCELED CERTIFICATES. Repealed 2/21/81.

18 AAC 74.100. REVOCATION OF CERTIFICATES. (a) The department will, in its discretion, revoke the certificate of an operator upon a finding of fraud or deceit in obtaining the certificate; fraud or deceit in plant recordkeeping; gross negligence in the operation of a system; or violation of the requirements of this chapter. The department will consider the recommendations of the board in determining whether to revoke a certificate.

(b) If a certificate is revoked, the operator may not apply again for certification for 365 days following revocation. An application received under this subsection will be treated as an initial application. (Eff. 8/21/78, Reg. 67)

Authority: AS 46.30.060  
AS 46.30.080(4)

18 AAC 74.110. TEMPORARY CERTIFICATION. The department will, in its discretion, issue a temporary certificate for good cause shown. The temporary certificate will be valid until the earliest opportunity at which the operator may be examined and certified under this chapter. A temporary certificate will apply only to the system which the applicant is operating at the time of application. Temporary certificates are not renewable. (Eff. 8/21/78, Reg. 67)

Authority: AS 46.30.110

18 AAC 74.120. CLASSIFICATION OF WATER SUPPLY SYSTEMS AND WASTEWATER SYSTEMS. (a) For the

purposes of this chapter, water supply systems and wastewater systems are classified as follows:

TABLE B - CLASSIFICATION RATING SYSTEM

Collection and Distribution Systems

System Type	Units	I	II
Wastewater Collection System	Population Served	500 to 15,000	15,001 and greater
Water Distribution System			

TABLE C - CLASSIFICATION RATING SYSTEM

Treatment Systems

System Type	Units	I	II	III	IV
Wastewater Treatment System	Range of Points	30 and less	31-55	56-75	76 and greater
Water Treatment System					

(b) The department will, in its discretion, and after considering the advice of the board, modify the classification rating system in (a) of this section if the department finds that there are unusual factors affecting the complexity of unit processes, quality of raw water sources, users of water downstream of wastewater system discharges or potential health hazards.

(c) In classifying water treatment systems under (a) of this section, the following point system will be used:

Item	Points
Size <sup>a</sup>	
Maximum population served, peak day . . . . .	1 point per 10,000 or part
Design flow (average day) or peak month's production (average day) whichever is larger . . . . .	1 point per 1.0 million gallons per day or part
Water Supply Source	
Groundwater . . . . .	3-5 <sup>b</sup>
Surface water . . . . .	4-7 <sup>b</sup>

Adjustment  
pH adjustment, stability, corrosion control . . . . . 7

Treatment  
Aeration . . . . . 3  
Ion exchange, catalytic adsorption<sup>c</sup> . . . . . 10  
Chemical precipitation, coagulation-flocculation . . . . . 20  
Sedimentation . . . . . 5  
Filtration . . . . . 10  
Reverse osmosis, electro dialysis, etc. . . . . 20  
Activated carbon . . . . . 10  
On-site treatment of system sludge . . . . . 15  
Ozonation . . . . . 8

Fluoridation . . . . . 5

Disinfection . . . . . 5-8<sup>b</sup>

Laboratory Control by Plant Personnel  
Bacteriological (complexity) . . . . . 3-10<sup>b</sup>  
Chemical/physical (complexity) . . . . . 1-10<sup>b</sup>

a Limit 10 points each, or maximum of 20 points for size.

- b Range of points determined by raw water quality, disinfection scheme, and complexity of on-site laboratory analysis.
- c Includes potassium permanganate green-sand.

(d) In classifying wastewater treatment systems under (a) of this section, the following point system will be used:

Item Size <sup>a</sup>	Points
Maximum population served, peak day . . . . .1 point per 10,000 or part	
Design flow (average day) or peak month's flow (average day), whichever is larger . . . . .1 point per 1.0 million gallons per day or part	

**Pretreatment**

Screening, comminution . . . . .	1-3 <sup>b</sup>
Mechanically cleaned grit chamber . . . . .	.3
Plant pumping of main flow . . . . .	.3
Pre-aeration . . . . .	.1
Flow equalization . . . . .	.2

**Primary Treatment**

Primary clarifiers . . . . .	.5
Combined sedimentation/digestion . . . . .	.5
Chemical addition . . . . .	.4
Dissolved air flotation . . . . .	.5

**Secondary Treatment**

Trickling filter . . . . .	.10
Activated sludge . . . . .	10-15 <sup>b</sup>
Stabilization ponds without aeration . . . . .	5
Aerated lagoon . . . . .	8
Rotating biological surface . . . . .	.10
Activated bio-filter with aeration . . . . .	.15
Activated bio-filter without aeration . . . . .	.10
Pure oxygen . . . . .	.20
Secondary clarifiers . . . . .	5

**Advanced Waste Treatment**

Polishing pond . . . . .	2
Chemical/physical—without secondary . . . . .	.15
Chemical/physical following secondary . . . . .	.10
Ion exchange . . . . .	.10
Reverse osmosis, electrodialysis . . . . .	.15
Chemical recovery, carbon regeneration . . . . .	4
Adsorption . . . . .	.10
Filtration . . . . .	.10

**Solids Handling**

Thickening . . . . .	5
Anaerobic digestion . . . . .	.10
Aerobic digestion . . . . .	6
Evaporative sludge drying . . . . .	2
Mechanical dewatering . . . . .	8
Solids reduction (incineration, wet oxidation) . . . . .	.12
Residual disposal . . . . .	1-4 <sup>b</sup>

<b>Disinfection</b> . . . . .	5-8 <sup>b</sup>
Chemical or mechanical dechlorination . . . . .	.3

**Effluent Discharge**

Receiving stream . . . . .	2-6 <sup>b</sup>
Land application . . . . .	.2
Subsurface disposal . . . . .	.4

**Laboratory Control by Plant Personnel**

Bacteriological (complexity) . . . . .	3-10 <sup>b</sup>
Chemical/physical (complexity) . . . . .	1-10 <sup>b</sup>

- a Limit 20 points each, or maximum of 20 points for size.
- b Range of points determined by complexity of unit process operation, effluent discharge scheme, and complexity of on-site laboratory analysis.

(Eff. 8/21/78, Reg. 67)

Authority: AS 46.30.010  
AS 46.30.080(1)  
AS 46.30.090

18 AAC 74.130. TRAINING. The department will, with the assistance of the board, develop a program for the training of water and wastewater operators. To the extent practicable, the training program will use the facilities of higher educational institutions in the state. The plan will include, at a minimum, training through seminars, workshops, classroom instruction, correspondence, and on-the-job programs. (Eff. 8/21/78, Reg. 67)

Authority: AS 46.30.030

**18 AAC 74.140. DUTIES OF THE WATER AND WASTEWATER WORKS ADVISORY BOARD.** The duties of the board include

(1) advising and assisting the department in certifying operators and classifying water and wastewater systems;

(2) reviewing qualifications of applicants for examination and/or certification in cooperation with the department or at the request of the applicant;

(3) advising the department in the preparation and administration of examinations;

(4) making recommendations to the department on the issuance, cancellation, invalidation, or revocation of certificates;

(5) assisting the department in the determination of the number of certified operators necessary for the successful operation of a system;

(6) making recommendations to the legislature and the governor proposing new or modified legislation concerning operation and maintenance of public water supply and wastewater systems;

(7) assisting and advising the department in the development and administration of a training program; and

(8) other assistance as may be requested from time to time by the department. (Eff. 8/21/78, Reg. 67)

Authority: AS 46.30.020  
AS 46.30.030  
AS 46.30.060

**18 AAC 74.150. COMPOSITION OF THE WATER AND WASTEWATER WORKS ADVISORY BOARD.** A minimum of three members of the board will be operators certified pursuant to this chapter. (Eff. 8/21/78, Reg. 67)

Authority: AS 46.30.020  
AS 46.30.090

**18 AAC 74.160. APPEALS.** Any person aggrieved by an action of the department taken under this chapter may ask the board to hear the grievance, and to make a recommendation to the

department. Use of this procedure does not diminish any right the aggrieved person may have under the Administrative Procedure Act (AS 44.62). (Eff. 8/21/78, Reg. 67)

Authority: AS 46.30.080

**18 AAC 74.900. DEFINITIONS.** (a) Unless the context indicates otherwise in this chapter

(1) "applicant" means any person who desires to obtain a certificate under this regulation;

(2) "board" means the Water and Wastewater Works Advisory Board established by AS 46.30.020;

(3) "certificate" means a certificate of competency issued to an operator by the department stating that the operator has met the requirements for the specified operator level of the certification program;

(4) "department" means the Alaska Department of Environmental Conservation;

(5) "operating experience" means the time spent at a system in satisfactory performance of operation duties;

(6) "operator" means anyone who is engaged in the on-site operation of a water supply system or wastewater system; "operator" does not ordinarily apply to an official exercising only general administrative supervisions, such as the city engineer or public works superintendent;

(7) "operator-in-training" means any person receiving on-the-job training under the supervision of a certified operator or through an organized training program, who desires to obtain a certificate and who is, or can show probable employment as, an operator of a water or wastewater system;

(8) "person" means any individual, public or private corporation, political subdivision, government agency, municipality, partnership, association, or any other entity whatsoever;

(9) "responsible charge" means the active, daily, on-site supervision of system operations;

(10) "service connection" means a pipe, with its appurtenances, that connects a water or sewer main with building plumbing;

(11) "systems" means water supply system or wastewater system;

(12) "wastewater collection system" means pipelines or conduits, pumping stations and force mains, and all other appurtenant constructions, devices, and appliances used for conducting wastewater to a wastewater treatment system;

(13) "wastewater system" means the system of pipes, structures, equipment and processes required to collect, carry away and treat domestic and industrial wastewater and dispose of the effluent;

(14) "wastewater treatment system" means devices, structures, and appurtenances used for treating, neutralizing, stabilizing, or disposing of wastewater and residuals;

(15) "water distribution system" means post-treatment storage facilities, conduits, mains, lines and appurtenances, pumping stations or other devices used to transport water to the consumer; and

(16) "water supply system" means any source of water, intake works, collection system, treatment works, storage facility, or distribution system from which water is available for human consumption; the term includes, but is not limited to, systems providing water to more than one residential dwelling unit, or to a factory, office building, restaurant, school, and other similar facilities, but does not include a system serving only a single-family residence;

(17) "water treatment system" means devices, structures and appurtenances, used to condition, purify, or refine water for human consumption; a groundwater supply with only chlorination is considered a water distribution system and not a water treatment system;

(18) "on-site" means present at a system for an amount of time and at intervals considered acceptable by the department, based upon the complexity of the treatment process, and available and on-call within two hours of the system at all times, unless there is a back-up operator who is certified at no less than one level below the classification of the system and who is designated to assume the responsibilities of the op-

erator in responsible charge in his absence. (Eff. 8/21/78, Reg. 67; am 2/21/81, Reg. 77)

Authority: AS 46.30.130



# LAWS OF ALASKA

1976

Source

CSHB 407 am

Chapter No.

244

## AN ACT

Requiring certification of water and wastewater operators; and providing a program for the training of water and wastewater operators.

### BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

\* Section 1. AS 46 is amended by adding a new chapter to read:

#### CHAPTER 30. CERTIFICATION OF OPERATORS.

Sec. 46.30.010. CLASSIFICATION. The department shall classify all potable water systems and facilities actually used or intended for use by the public, and all wastewater systems and facilities which discharge into publicly owned wastewater systems, or to receiving bodies of water, or on land used by others. The classification shall take due regard to size and type, character of water or wastewater to be treated, and other physical conditions affecting the systems and facilities, and according to the skill, knowledge and experience required of an operator.

Sec. 46.30.020. WATER AND WASTEWATER WORKS ADVISORY BOARD. There is created the Water and Wastewater Works Advisory Board composed of the commissioner of environmental conservation and eight additional members appointed by the governor. The Water and Wastewater Works Advisory Board shall advise and assist the department in the administration of the training and certification program. Appointments to the board shall be for a period of five years. The initial term of office of two of the members is for one year, the initial term of three of the members is three years, and the initial term of three of the members is five years. Vacancies shall be filled in the same manner as the original appointments.

Sec. 46.30.030. TRAINING. The department shall, with the assistance and advice of the Water and Wastewater Works

Advisory Board, provide a water and wastewater works operator training program. The purpose of this program is to provide mechanisms for water and wastewater works operators to become certified under the provisions of this chapter and for certified operators to maintain and improve their competency in operating water and wastewater systems or facilities. The department shall coordinate and cooperate with educational institutions and other organizations or individuals in the administration of this section.

Sec. 46.30.040. CERTIFICATION REQUIREMENT. Two years following the effective date of this chapter, all potable water supply and wastewater systems and facilities, whether publicly or privately owned, which serve 100 or more service connections or are used or intended for use by 500 or more persons, must at all times be under the supervision of an operator whose competency is certified to by the department in a classification corresponding to the classification of the system or facility to be supervised.

Sec. 46.30.050. EXAMINATIONS. Examinations shall be held at least annually at times and places set by the department. Separate examinations shall be given for each operator classification. Applicants who fail to pass an examination may repeat the examination at subsequent regularly scheduled examinations.

Sec. 46.30.060. CERTIFICATION. The department shall issue certification entitling those persons who successfully complete the required examinations to supervise the operation of potable water supply and wastewater systems and facilities after considering the recommendations of the advisory board. The certificate will designate the class of system for which the operator is qualified in accordance with the classification system of the department. The certificate shall be valid for three years unless revoked for cause, replaced by one of a higher grade, or the operator for a continuous period of one year has not been actively engaged in the duties authorized by the certificate. An operator whose certificate has been invalidated for not having been actively engaged in the duties authorized may be issued a new certificate upon proof of competency as prescribed by regulations.

Sec. 46.30.070. CERTIFICATES WITHOUT EXAMINATION. Certificates may be issued without an examination to persons employed as water or wastewater works operators on the effective date of this chapter who request such a waiver. The examination waiver shall be printed on the certificate. An operator certified under this section may request to have his certificate transferred to another facility of the same general class and type or to another facility of lower class. The request shall be granted if, in the opinion of the department, the transfer would not adversely affect the health and safety of the public or the environment. The department shall consider the recommendations of the Water and Wastewater Works Advisory Board before granting or denying a request under this section.

Sec. 46.30.080. REGULATIONS. The department, with the advice of the advisory board, shall issue regulations for administration of this chapter. The regulations shall include

(1) the basis for classification of potable water supply and wastewater systems and facilities, including the type and size of lesser systems and facilities, if any, to which the provisions of this chapter do not apply, as required by sec. 10 of this chapter;

(2) criteria for the qualification of applicants for operator certification corresponding to each of the classifications referred to in sec. 10 of this chapter;

(3) procedures for examination of candidates and renewal of certificates;

(4) procedures for the revocation of certificates;

(5) determination as to which additional personnel shall be certified when certification is required for more than the operator in direct responsible charge.

Sec. 46.30.090. GUIDELINES. The department, to the extent it determines feasible, shall be guided by the standards recommended by the Association of Boards of Certification for Operating Personnel in Water and Wastewater Utilities.

Sec. 46.30.100. RECIPROCITY. Certificates may be issued without examination in the comparable classification to an applicant who holds a certificate in a state, territory, or possession of the United States, if its certification requirements and examinations are comparable to those of this state and if reciprocal privileges are granted to operators certified in this state.

Sec. 46.30.110. TEMPORARY CERTIFICATION. In the event of unusual or emergency circumstances or following the hiring of new employees, temporary certificates may be issued to an operator until such time as he may be examined and certified. Within two weeks after employment of such an operator, the department shall be notified in writing and information shall be provided, including the operator's name, background, experience, training, education, and references. Thereafter, the operator may be issued a temporary certificate which shall remain valid only for that time required for next routine examination and evaluation.

Sec. 46.30.120. FROHIBITED ACTS. On or after two years following the effective date of this chapter, it shall be unlawful

(1) for any potable water supply or wastewater system or facility subject to AS 46.30.040 to be operated unless the operator is certified under the provisions of this chapter;

(2) for any person to perform the duties of an operator without being certified under the provisions of this chapter.

Sec. 46.30.130. DEFINITIONS. In this chapter

(1) "certificate" means certificate of competency issued by the department stating that the operator has met

the requirements for the specified operator classification of the certification program;

(2) "department" means the Department of Environmental Conservation;

(3) "potable water supply system" means the system of pipes, structures, and facilities through which water is obtained, treated and sold, distributed or otherwise offered to the public for household use or any use by humans;

(4) "wastewater system" means the system of pipes, structures, equipment and processes required to collect, carry away and treat domestic and industrial wastewater and dispose of the effluent.

*now, replace with  
copy*

BILL SHEFFIELD GOVERNOR

**DEPARTMENT OF LAW**

POUCH K - STATE CAPITOL  
JUNEAU, ALASKA 99811  
PHONE: (907) 465-3600

OFFICE OF THE ATTORNEY GENERAL

February 13, 1985

MEMORANDUM

RECEIVED

TO: Honorable Bill Sheffield  
Governor

FEB 15 1985

FROM: *Norman C. Gorsuch*  
Norman C. Gorsuch  
Attorney General

DEPARTMENT OF  
ENVIRONMENTAL CONSERVATION

RE: Attached bill on certification of water  
and wastewater treatment system operators  
Cur file: 377-174-85

Attached is a bill to rectify an error in 18 AAC 74.030 which has gone undetected since 1978. The bill was requested by the Department of Environmental Conservation, prompted by legal advice from us.

The underlying statute, AS 46.30.070, waived the certification examination requirement for wastewater plant operators who were employed as operators on September 24, 1976. However, when the implementing regulation was adopted in 1978, it mistakenly prescribed the cutoff date as September 24, 1978. As a result, numerous operators who were employed as such on September 24, 1978 were issued certificates and have continued to work on waiver without taking the required examination. In addition, many have worked under operator's certificates issued under the Alaska Water Management Association voluntary certification program, which the regulation mistakenly identified as a valid substitute for a certification examination.

The Department of Environmental Conservation believes that experienced operators who were employed as such on September 24, 1978 and operators who were certified under the Alaska Water Management Association Voluntary Certification Program on or before September 24, 1978 are fully qualified to serve as operators and may continue to do so without the need to take the certification examination that the law, in its current form, requires. For this reason, and because so many of the operators relied on the errors in 18 AAC 74.030, we recommend that those individuals (numbering approximately 60) be grandfathered in and be considered properly certified. The attached bill accomplishes this result and is supported by the Department of Environmental Conservation.

D R A F T

Under the authority of art. III, sec. 18, of the Alaska Constitution, I am transmitting a bill to rectify an old error in the Alaska Administrative Code.

In 1978, the legislature passed AS 46.30.070, which addresses the certification of operators of water and wastewater treatment facilities. The statutory scheme required certification by examination, but sec. 70 exempted from the examination requirement those persons who were employed as operators on September 24, 1976. When implementing regulations were adopted in 1978, what appears to have been a typographical error identified the cutoff date as September 24, 1978. See 18 AAC 74.030(1). The regulation also erroneously provided for an examination waiver for applicants holding certificates issued under the Alaska Water Management Association voluntary certification program. See 18 AAC 74.030(2). In reliance on these errors, many operators did not take the required examination. Today there are approximately 60 operators who are so certified.

The attached bill will grandfather in those individuals who, before January 1, 1985, applied for and received certification without examination, based upon employment as operators on September 24, 1978 or a valid certificate issued under the Alaska Water Management voluntary

certification program. You should note that this corrective legislation will be uncodified and will not change the existing law in AS 46.30.070; it only alleviates the harm that would be done to operators who relied on the errors in the Alaska Administrative Code while continuing to require others who have not been so affected to comply with the standard the legislature set down in 1976 in AS 46.30.070. It is my recommendation that, after enactment, the revisor of statutes arrange for the inclusion of this uncodified law as a note in the published Alaska Statutes, following AS 46.30.070.

The Department of Environmental Conservation fully supports this bill and believes that the grandfather rights may be extended to the affected individuals with confidence that there will be no threat to the safe and efficient operation of water and wastewater treatment facilities, since the affected individuals have competently performed their duties in the past. I urge your prompt action on this remedial legislation.

Sincerely,

Bill Sheffield  
Governor

Introduced: 1/13/86  
Referred: Health, Education &  
Social Services and Resources

1 IN THE HOUSE

BY GRUENBERG AND JENKINS

2

HOUSE BILL NO. 450

3

IN THE LEGISLATURE OF THE STATE OF ALASKA

4

FOURTEENTH LEGISLATURE - SECOND SESSION

5

A BILL

6

For an Act entitled: "An Act relating to certification of water and waste-  
water operators."

7

8

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

9

\* Section 1. AS 46.30.060 is amended to read:

10

Sec. 46.30.060. CERTIFICATION. The department shall issue

11

certification entitling those persons who successfully complete the

12

required examinations to supervise the operation of potable water

13

supply and wastewater systems and facilities after considering the

14

recommendations of the advisory board. The certificate will designate

15

the class of system for which the operator is qualified in accordance

16

with the classification system of the department. The certificate

17

shall be valid for three years unless revoked for cause or [,] re-

18

placed by one of a higher grade [, OR THE OPERATOR FOR A CONTINUOUS

19

PERIOD OF ONE YEAR HAS NOT BEEN ACTIVELY ENGAGED IN THE DUTIES AU-

20

THORIZED BY THE CERTIFICATE. AN OPERATOR WHOSE CERTIFICATE HAS BEEN

21

INVALIDATED FOR NOT HAVING BEEN ACTIVELY ENGAGED IN THE DUTIES AU-

22

THORIZED MAY BE ISSUED A NEW CERTIFICATE UPON PROOF OF COMPETENCY AS

23

PRESCRIBED BY REGULATIONS].

# STATE OF ALASKA 1986 LEGISLATIVE SESSION FISCAL NOTE

Revision Date : 1/15/86

**REQUEST**

Bill/Resolution No. : HB 450  
 Title : Certification of water and wastewater operators  
 Sponsor : Gruenberg and Jenkins  
 Requestor : Gruenberg  
 Date of Request : 1/14/86

**FISCAL DETAIL**

Agency Affected : ADEC  
 BRU : Facilities Construction & Operation  
 Components : \_\_\_\_\_

**EXPENDITURES/REVENUES : (Thousands of Dollars)**

OPERATING	FY 86	FY 87	FY 88	FY 89	FY 90	FY 91
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
<b>TOTAL OPERATING</b>	0	0	0	0	0	0

<b>CAPITAL</b>	0	0	0	0	0	0
----------------	---	---	---	---	---	---

<b>REVENUE</b>	0	0	0	0	0	0
----------------	---	---	---	---	---	---

**FUNDING : (Thousands of Dollars)**

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
<b>TOTAL</b>	0	0	0	0	0	0

**POSITIONS : NONE**

FULL-TIME						
PART-TIME						
TEMPORARY						

**ANALYSIS :** Attach a separate page if necessary

Prepared by : Billie Trent Phone : 465-2600  
 Division : Office of the Commissioner Date : 1/15/86  
 Approved by Commissioner : Bill Ross Date : 1/15/86  
 Agency : Department of Environmental Conservation

Distribution (by Agency preparing fiscal note) :

- Legislative Finance
- Legislative Sponsor
- Requestor
- Office of Management and Budget
- Impacted Agency(ies)

## TITLE 18. ENVIRONMENTAL CONSERVATION

18 AAC 74.010

## Chapter 74. Water and Wastewater Operator Certification and Training

## Section

- 10. General provisions
- 20. Certification requirements
- 30. Certification without examination
- 40. Examination requirements
- 50. Experience and education requirements
- 60. Display of certificates
- 70. Certificate term and renewal
- 80. Lapsed certificates
- 90. Canceled certificates
- 100. Revocation of certificate
- 110. Temporary certification
- 120. Classification of water supply systems and wastewater systems
- 130. Training
- 140. Duties of the water and wastewater works advisory board
- 150. Composition of the water and wastewater works advisory board
- 160. Appeals
- 900. Definitions

18 AAC 74.010. GENERAL PROVISIONS. After September 24, 1978, all water supply systems and wastewater systems, whether publicly or privately owned, which serve 100 or more service connections or are used or intended for use by 500 or more persons per day, must be under the supervision of an operator certified by the department as follows:

(1) An operator in responsible charge of a system must be certified at a level corresponding to the classification of the system under his responsibility.

(2) An operator in responsible charge of an operating shift of a system must be certified at no less than one level below that corresponding to the classification of the system under his responsibility.

(3) An operator in responsible charge of more than one system must be certified at a level corresponding to the highest individual classification of the systems under his responsibility. (Eff. 8/21/78. Reg. 67).

Authority AS 46.30.080(1)  
 AS 46.30.080(3)  
 AS 46.30.080(5)  
 AS 46.30.040

TITLE 18. ENVIRONMENTAL CONSERVATION

18 AAC 74.020

18 AAC 74.040

18 AAC 74.020. CERTIFICATION REQUIREMENTS. (a) No person will be certified under this chapter unless an appropriate application has been submitted to the department on forms provided by the department.

(b) The department will certify an applicant if it finds that the applicant has either met the conditions of sec. 30 of this chapter, or has satisfied the examination requirements of sec. 40 of this chapter and the experience and education requirements of sec. 50 of this chapter. (Eff. 8/21/78. Reg. 67).

Authority AS 46.30.080(2)

18 AAC 74.030. CERTIFICATION WITHOUT EXAMINATION. The department, in its discretion, will issue certificates without regard to the requirements of sections 40-50 of this chapter if the applicant:

(1) has been verified by the owner of the system or by the Alaska Water Management Association to have been an operator of a water supply system or wastewater system on September 24, 1978; certificates issued under this subsection will have "examination waiver" printed on the certificate, and will authorize the holder to continue operation of the system for which verification was made under this subsection; an operator certified under this section may request to have the certificate transferred to another system of the same classification or to a system of lower classification; the department, in its discretion, will grant the request if the system for which the transfer is sought is substantially similar to the system from which the transfer is being made; the department will consider the recommendation of the board before making a determination on a request under this subsection;

(2) holds a valid certificate issued under the Alaska Water Management Association voluntary certification program on or before September 24, 1978; or

(3) holds a current certificate issued by any state, territory or possession of the United States, if that jurisdiction's certification requirements and examinations are comparable to those of the State of Alaska and that reciprocal privileges are granted by that jurisdiction to operators certified by the State of Alaska. (Eff. 8/21/78, Reg. 67).

Authority AS 46.30.070

AS 46.30.080(3)

AS 46.30.100

18 AAC 74.040. EXAMINATION REQUIREMENTS. (a) Applications for certification must be submitted to the department at least 60 days before the date set for an examination.

(b) An application must be filed for the level of certification requested.

(c) The department will notify the applicant regarding eligibility for examination.

(d) An applicant who fails to appear for a certification examination must file a new application to be eligible for another scheduled examination.

(e) Examinations will be held at least annually at times and locations announced by the department. The department will, in its discretion, designate representatives to act as proctors in administering the examinations.

(f) The department, in its discretion, will conduct oral or practical examinations instead of, or to augment, the written examination. Before conducting oral or practical examinations, the department will notify the board, which must have one or more members present during the oral or practical examination. A certificate issued following an oral or practical examination will apply only to the system which the applicant is operating at the time of examination.

(g) Examinations will be graded by the department and each applicant notified of the results within 60 days. Examinations will not be mailed to the applicant; however, the applicant may review the examination results with the department.

(h) Applicants who fail an examination may reapply and retake the examination at another scheduled examination date. (Eff. 8/21/78, Reg. 67).

Authority AS 46.30.050  
AS 46.30.080(5)

18 AAC 74.050. EXPERIENCE AND EDUCATION REQUIREMENTS. (a) Criteria used by the department to evaluate experience and education qualifications of operators are contained in Table A.

TABLE A - MINIMUM PERSONNEL EDUCATION AND EXPERIENCE REQUIREMENTS (IN YEARS)

Operator Level												
System Type	Operator in Training		I		II		III			IV		
	Educ.	Op. Exp.	Educ.	Op. Exp.	Educ.	Op. Exp.	Educ.	Op. Exp.	Resp. Charge Exp.	Educ.	Op. Exp.	Resp. Charge Exp.
Wastewater Collection	12	*	12	1	12	4	-	-	-	-	-	-
Wastewater Treatment	12	*	12	1	12	3	14	4	(2)	16	4	(2)
Water Distribution	12	*	12	1	12	4	-	-	-	-	-	-
Water Treatment	12	*	12	1	12	3	14	4	(2)	16	4	(2)

\*Three months operating experience or satisfactory completion of a basic training course approved in writing by the department.

Abbreviations

Educ. - Education

Op. - Operator

Exp. - Experience

Resp. - Responsible

(1) For level I certification, the minimum experience requirement is one year of experience in the appropriate type of system, without substitution;

(2) For levels II, III, and IV certification, substitutions under (b) of this section may be made for up to 50 percent of the minimum experience requirements (both operating and responsible charge). The remainder of the experience requirements must be met by actual on-site operating experience in the appropriate type of system;

(3) Experience requirements must be met under the supervision of a certified operator or through an organized on-the-job training program;

(4) The department will issue a conditional level III certificate to allow a level II operator to accumulate responsible charge experience, if an application has been submitted to the department and the applicant has satisfied the level III examination and operating experience requirements. A certificate issued under this paragraph is valid for one year and is renewable for a maximum of one year upon approval by the department. The certificate will be valid only for the system which the applicant is operating at the time of application;

(5) At least half of the operating experience requirement for level III certification must be achieved through operating experience with a level II or higher system;

(6) At least half of the operating experience requirement for level IV certification must be achieved through operating experience with a level III or higher system;

(7) In smaller systems without shift operation, responsible charge experience is active, daily, onsite charge and performance of operation duties in a system in the next lower classification; and

(8) In larger systems with shift operation, responsible charge experience is both daily, onsite technical direction and supervision of operation duties in a system in the next lower classification, and active, daily, onsite charge of an operating shift, or a major segment of a system, in the same or next lower classification.

(b) Substitutions under (a)(2) of this section may be made under following criteria:

(1) High school education may not be substituted for experience

TITLE 18. ENVIRONMENTAL CONSERVATION

18 AAC 74.050  
18 AAC 74.060

(2) Relevant postsecondary education as approved by the department may be substituted for operating or responsible charge experience. The rate of exchange or education for experience is one year of experience for each year of relevant full time postsecondary education successfully completed by the applicant.

(3) Education used to substitute for an operating experience requirement may not also be applied to the education requirement.

(4) One year of operating or responsible charge experience may be substituted for either two years of elementary school education with no limitation, or one year of high school education with no limitation.

(5) A maximum of one year of responsible charge experience in a class II or higher system may be substituted for one year of the postsecondary educational requirement for level III certification.

(6) A maximum of one year of responsible charge experience in a class III or higher system may be substituted for one year of the postsecondary educational requirement for level IV certification.

(7) Experience substituted for an educational requirement may not also be applied toward meeting the operating or responsible charge experience requirements.

(8) Forty five continuing education units (CEU's) in relevant specialized operator training or education may be used to satisfy one year of the educational requirement or one year of operating or responsible charge experience. Ten hours of department approved course work equals one CEU. (Eff. 8/21/78, Reg. 67).

Authority AS 46.30.080(2)

18 AAC 74.060. DISPLAY OF CERTIFICATES. Certificates must be displayed in the plant or utility office of the operator. (Eff. 8/21/78, Reg. 67).

Authority AS 46.30.060

18 AAC 74.070. CERTIFICATE TERM AND RENEWAL. (a) The term for certificates and renewals will be from the first of January of the year of issuance until December 31 three years later.

(b) The department will send each holder of a certificate a renewal notice at least 60 days before the expiration date of the certificate. Notice will be mailed to the last address of record. Failure to receive notice does not relieve the holder of his responsibility to renew the certificate.

TITLE 18. ENVIRONMENTAL CONSERVATION

18 AAC 74.070  
18 AAC 74.100

(c) Upon receipt of a valid and timely request for renewal, the department will issue a renewal certificate. (Eff. 8/21/78, Reg. 67).

Authority AS 46.30.060  
AS 46.30.080(3)

18 AAC 74.080. LAPSED CERTIFICATES. (a) The department will renew certificates for which timely application for renewal was not made under sec. 70 of this chapter, if an application for renewal is received within 180 days after the expiration of the certificate.

(b) The department will, in its discretion, require reexamination of an operator if a renewal application is received more than 180 days after the expiration of the certificate. The department will consider the recommendations of the board in determining the need for examination of an operator whose certificate has lapsed under this section. (Eff. 8/21/78, Reg. 67).

Authority AS 46.30.080(3)

18 AAC 74.090. CANCELED CERTIFICATES. Repealed, (Eff. 2/21/80, Reg. 77).

18 AAC 74.100. REVOCATION OF CERTIFICATES. (a) The department will, in its discretion, revoke the certificate of an operator upon a finding of fraud or deceit in obtaining the certificate; fraud or deceit in plant record keeping; gross negligence in the operation of a system; or violation of the requirements of this chapter. The department will consider the recommendations of the board in determining whether to revoke a certificate.

(b) If a certificate is revoked, the operator may not apply again for certification for 365 days following revocation. An application received under this subsection will be treated as an initial application. (Eff. 8/21/78, Reg. 67).

Authority AS 46.30.060  
AS 46.30.080(4)

TITLE 18. ENVIRONMENTAL CONSERVATION 18 AAC 74.110  
 18 AAC 74.120

18 AAC 74.110. TEMPORARY CERTIFICATION. The department will, in its discretion, issue a temporary certificate for good cause shown. The temporary certificate will be valid until the earliest opportunity at which the operator may be examined and certified under this chapter. A temporary certificate will apply only to the system which the applicant is operating at the time of application. Temporary certificates are not renewable. (Eff. 8/21/78, Reg. 67).

Authority AS 46.30.110

18 AAC 74.120. CLASSIFICATION OF WATER SUPPLY SYSTEMS AND WASTEWATER SYSTEMS. (a) For the purposes of this chapter, water supply systems and wastewater systems are classified as follows:

TABLE B - CLASSIFICATION RATING SYSTEM

Collection and Distribution Systems

System Type	Units	I	II
Wastewater Collection System	Population Served	500 to 15,000	15,001 and greater
Water Distribution System			

TABLE C - CLASSIFICATION RATING SYSTEM

Treatment Systems

System Type	Units	I	II	III	IV
Wastewater Treatment System	Range of Points	30 and less	31-55	56-75	76 and greater
Water Treatment System					

TITLE 18. ENVIRONMENTAL CONSERVATION 18 AAC 74.120

(b) The department will, in its discretion, and after considering the advice of the board, modify the classification rating system in (a) of this section if the department finds that there are unusual factors affecting the complexity of unit processes, quality of raw water sources, users of water downstream of wastewater system discharges or potential health hazards.

(c) In classifying water treatment systems under (a) of this section, the following point system will be used:

<u>Item</u>	<u>Points</u>
<u>Size<sup>a</sup></u>	
Maximum population served, peak day .....	1 point per 10,000 or part
Design flow (average day) or peak month's production (average day) whichever is larger .....	1 point per 1.0 million gallons per day or part
<u>Water Supply Source</u>	
Groundwater.....	3-5 <sup>b</sup>
Surface water.....	4-7 <sup>b</sup>
<u>Adjustment</u>	
pH adjustment, stability, corrosion control.....	7
<u>Treatment</u>	
Aeration .....	5
Ion exchange, catalytic adsorption <sup>c</sup> .....	10
Chemical precipitation, coagulation-flocculation..	20
Sedimentation.....	5
Filtration.....	10
Reverse osmosis, electrodialysis, etc.....	20
Activated carbon.....	10
On-site treatment of system sludge.....	15
Ozonation.....	8
<u>Fluoridation</u> .....	5
<u>Disinfection</u> .....	5-8 <sup>b</sup>
<u>Laboratory Control by Plant Personnel</u>	
Bacteriological (complexity).....	3-10 <sup>b</sup>
Chemical/physical (complexity).....	1-10 <sup>b</sup>

(d) In classifying wastewater treatment systems under (a) of this section, the following point system will be used:

- a Limit 10 points each, or maximum of 20 points for size
- b Range of points determined by raw water quality, disinfection scheme, and complexity of on-site laboratory analysis.
- c Includes potassium permanganate greensand.

<u>Item</u>	<u>Points</u>
<u>Size<sup>a</sup></u>	
Maximum population served, peak day.....	1 point per 10,000 or part
Design flow (average day) or peak month's flow (average day), whichever is larger.....	1 point per 1.0 million gallons per day or part
<u>Pretreatment</u>	
Screening, comminution.....	1-3 <sup>b</sup>
Mechanically cleaned grit chamber.....	3
Plant pumping of main flow.....	3
Pre-aeration.....	1
Flow equalization.....	2
<u>Primary Treatment</u>	
Primary clarifiers.....	5
Combined sedimentation/digestion.....	5
Chemical addition .....	4
Dissolved air flotation.....	5
<u>Secondary Treatment</u>	
Trickling filter .....	10
Activated sludge .....	10-15 <sup>b</sup>
Stabilization ponds without aeration.....	5
Aerated lagoon.....	8
Rotating Biological Surface.....	10
Activated Bio-filter with aeration.....	15
Activated Bio-filter without aeration.....	10
Pure Oxygen.....	20
Secondary Clarifiers.....	5
<u>Advanced Waste Treatment</u>	
Polishing pond.....	2
Chemical/physical-without secondary.....	15
Chemical/physical following secondary.....	10
Ion exchange.....	10
Reverse osmosis, electrodialysis.....	15
Chemical recovery, carbon regeneration.....	4
Adsorption.....	10
Filtration.....	10
<u>Solids Handling</u>	
Thickening.....	5
Anaerobic digestion.....	10
Aerobic digestion.....	6
Evaporative sludge drying.....	2
Mechanical dewatering.....	8
Solids reduction (incineration, wet oxidation).....	12
Residual disposal.....	1-4 <sup>b</sup>

a Limit 10 points each, or maximum of 20 points for size

b Range of points determined by complexity of unit process operation, effluent discharge scheme, and complexity of on-site laboratory analysis.

TITLE 18. ENVIRONMENTAL CONSERVATION	18 AAC 74.120
	18 AAC 74.130
	18 AAC 74.140

<u>Disinfection</u> .....	5-8 <sup>b</sup>
Chemical or mechanical dechlorination.....	3

<u>Effluent Discharge</u>	
Receiving stream.....	2-6 <sup>b</sup>
Land application.....	2
Subsurface disposal.....	4

<u>Laboratory Control by Plant Personnel</u>	
Bacteriological (complexity).....	3-10 <sup>b</sup>
Chemical/Physical (complexity).....	1-10 <sup>b</sup>

- a Limit 10 points each, or maximum of 20 points for size
- b Range of points determined by complexity of unit process operation, effluent discharge scheme, and complexity of on-site laboratory analysis. (Eff. 8/21/78, Reg. 67).

Authority AS 46.30.010  
AS 46.30.080(1)  
AS 46.30.090

18 AAC 74.130. TRAINING. The department will, with the assistance of the board, develop a program for the training of water and wastewater operators. To the extent practicable, the training program will use the facilities of higher educational institutions in the state. The plan will include, at a minimum, training through seminars, workshops, classroom instruction, correspondence, and on-the-job programs. (Eff. 8/21/78, Reg. 67).

Authority AS 46.30.030

18 AAC 74.140. DUTIES OF THE WATER & WASTEWATER WORKS ADVISORY BOARD. The duties of the board include:

- (1) advising and assisting the department in certifying operators and classifying water and wastewater systems;
- (2) reviewing qualifications of applicants for examination and/or certification in cooperation with the department or at the request of the applicant;
- (3) advising the department in the preparation and administration of examinations;
- (4) making recommendations to the department on issuance, cancellation, invalidation, or revocation of certificates;
- (5) assisting the department in the determination of the number of certified operators necessary for the successful operation of a system;

TITLE 18. ENVIRONMENTAL CONSERVATION

18 AAC 74.140

18 AAC 74.900

(6) making recommendations to the legislature and the governor proposing new or modified legislation concerning operation and maintenance of public water supply and wastewater systems;

(7) assisting and advising the department in the development and administration of a training program; and

(8) other assistance as may be requested from time to time by the department. (Eff. 8/21/78, Reg. 67).

Authority AS 46.30.020

AS 46.30.030

AS 46.30.060

18 AAC 74.150. COMPOSITION OF THE WATER AND WASTEWATER WORKS ADVISORY BOARD. A minimum of three members of the board will be operators certified pursuant to this chapter. (Eff. 8/21/78, Reg. 67).

Authority AS 46.30.020

AS 46.30.090

18 AAC 74.160 APPEALS. Any person aggrieved by an action of the department taken under this chapter may ask the board to hear the grievance, and to make a recommendation to the department. Use of this procedure does not diminish any right the aggrieved person may have under the Administrative Procedure Act (AS 44.62). (Eff. 8/21/78, Reg. 67).

Authority AS 46.30.080

18 AAC 74.900. DEFINITIONS. (a) Unless the context indicates otherwise in this chapter

(1) "applicant" means any person who desires to obtain a certificate under this regulation;

(2) "board" means the Water and Wastewater Works Advisory Board established by AS 46.30.020;

(3) "certificate" means a certificate of competency issued to an operator by the department stating that the operator has met the requirements for the specified operator level of the certification program;

(4) "department" means the Alaska Department of Environmental Conservation;

(5) "on-site" means present at a system for an amount of time and at intervals considered acceptable by the department based upon the complexity of the treatment process, and available and on-call within two hours of the system at all times, unless there is a back-up operator who is certified at no less than one level below the classification of the system and who is designated to assume the responsibilities of the operator in responsible charge in his absence;

(6) "operating experience" means the time spent at a system in satisfactory performance of operation duties;

(7) "operator" means anyone who is engaged in the onsite operation of a water supply system or wastewater system; "operator" does not ordinarily apply to an official exercising only general administrative supervisions, such as the city engineer or public works superintendent;

(8) "operator-in-training" means any person receiving on-the-job training under the supervision of a certified operator or through an organized training program, who desires to obtain a certificate and who is, or can show probable employment as, an operator of a water or wastewater system;

(9) "person" means any individual, public or private corporation, political subdivision, government agency, municipality, partnership, association, or any other entity whatsoever;

(10) "responsible charge" means the active, daily, on-site supervision of system operations.

(11) "service connection" means a pipe, with its appurtenances, that connects a water or sewer main with building plumbing;

(12) "systems" means water supply system or wastewater system;

(13) "wastewater collection system" means pipelines or conduits, pumping stations and force mains, and all other appurtenant constructions, devices, and appliances used for conducting wastewater to a wastewater treatment system;

(14) "wastewater system" means the system of pipes, structures, equipment and processes required to collect, carry away and treat domestic and industrial wastewater and dispose of the effluent;

(15) "wastewater treatment system" means devices, structures, and appurtenances used for treating, neutralizing, stabilizing, or disposing of wastewater and residuals;

(16) "water distribution system" means post treatment storage facilities, conduits, mains, lines and appurtenances, pumping stations or other devices used to transport water to the consumer;

(17) "water supply system" means any source of water, intake works, collection system, treatment works, storage facility, or distribution system from which water is available for human consumption; and term includes, but is not limited to, systems providing water to more than one residential dwelling unit, or to a factory, office building, restaurant, school, and other similar facilities, but does not include a system serving only a single family residence; and

(18) "water treatment system" means devices, structures and appurtenances, used to condition, purify, or refine water for human consumption. a groundwater supply with only chlorination is considered a water distribution system and not a water treatment system. (Eff. 8/21/78, Reg. 67, am 2/21/81, Reg. 77).

Authority AS 46.30.150

18 AAC 74 is repealed and readopted to read:

CHAPTER 74. WATER AND WASTEWATER OPERATOR CERTIFICATION

Section

- 10. General provisions
- 20. Certification requirements
- 30. [Repealed]
- 40. Examination requirements
- 50. Experience and education requirements
- 60. Display of certificate
- 70. Certificate term and renewal
- 80. Lapsed certificate
- 90. [Repealed]
- 100. Revocation of certificate
- 110. Temporary certification
- 120. Classification of water supply and wastewater systems
- 130. [Repealed]
- 140. Water and Wastewater Works Advisory Board
- 150. [Repealed]
- 160. Appeals
- 170. Fees
- 900. Definitions

18 AAC 74.010. GENERAL PROVISIONS. Public or private water supply and wastewater systems with 100 or more service connections, or which are used or intended for use by 500 or more persons per day, must be supervised by an operator certified by the department. An operator in responsible charge of

(1) a system must be certified at a level equal to the classification of the system under that operator's control;

(2) an operating shift of a system must be certified at no less than one level below that level equal to the classification of the system under that operator's control;

(3) more than one system must be certified at a level equal to the highest individual classification of the systems under that operator's control. (Eff. 8/21/78, Register 67; am 8/24/85, Register 95)

Authority: AS 46.30.040  
AS 46.30.080  
AS 46.30.120

18 AAC 74.020. CERTIFICATION REQUIREMENTS. (a) A person seeking certification under this chapter shall submit an application to the department on a form approved by the department.

(b) The department will certify an applicant who has met the examination requirements of 18 AAC 74.040 and the experience and education requirements of 18 AAC 74.050 and the fee requirements of 18AAC 74.170. (Eff. 8/21/78, Register 67; am 8/24/85, Register 95)

Authority: AS 46.30.080

18 AAC 74.030. CERTIFICATION WITHOUT EXAMINATION. Deleted 8/24/85.

Editor's note: Under AS 44.62.060(b) and 44.62.125(b), 18 AAC 74.030 was deleted by the regulations attorney / / because it lacked statutory authority.

18 AAC 74.040. EXAMINATION REQUIREMENTS. (a) An application for certification must be received by the department at least 45 days before the date set for an examination, and must be filed for the level of certification sought.

(b) The department will notify the applicant of eligibility for an examination, which will be held at least annually at a time and place announced by the department. The department will, in its discretion, designate a person to act as proctor at the examination.

(c) The department will, in its discretion, conduct oral or practical examinations instead of, or to augment, written examinations. Before giving oral or practical examinations, the department will notify the board, which may have one or more members present during the examination. A certificate issued after an examination applies only to the system the applicant is operating when examined.

(d) Examinations will be graded by the department, and each applicant will be notified of the results within 60 days. Examinations will not be mailed to the applicant; however, the applicant may review the examination results with the department.

(e) An applicant who fails an examination or who fails to appear for an examination may submit a written request for rescheduling at least 45 days before a scheduled examination date. A requests received after the deadline will be scheduled for the next examination. (Eff. 8/21/78, Register 67; am 8/24/85, Register 95)

Authority: AS 46.30.050  
AS 46.30.080

18 AAC 74.050. EXPERIENCE AND EDUCATION REQUIREMENTS. (a) Criteria used by the department to evaluate qualifications of operators are set out in this section in Table A, subject to the following provisions:

(1) for level I certification, a minimum of one year of experience in the appropriate type of system is required, without educational substitution;

(2) for levels II, III, and IV certification, educational substitutions under (b) of this section may be made for up to 50 percent of the minimum experience requirements; the remaining experience requirements must be met by actual on-site operating experience in the appropriate type of system; experience may be substituted for education; there can be no substitution for the responsible charge requirement;

(3) for levels III and IV, transcripts from colleges or trade schools attended are required; certificates of completion for training courses taken are also required; maximum certified education units (CEUs) allowed for one year of trade school is 45; any school time spent as on-the-job training will count toward the experience requirement instead of the education requirement;

(4) a total of 1,950 work hours is counted as one year of experience; however, hours in excess of 1,950 accrued during a 12-month period are not counted as more than one year of experience;

(5) experience requirements must be met under the supervision of a certified operator or through an organized on-the-job training program;

(6) the department will issue a conditional level III certificate to allow a level II operator to accumulate responsible charge experience if the operator meets the level III examination and operating experience requirements and submits an application to the department; a conditional certificate is valid for one year and may be renewed for a maximum of one year with department approval; the certificate is valid only for the system the applicant is operating at the time of application;

(7) at least half of the operating experience requirement for level III certification must be achieved through operating experience with a level II or higher system;

(8) at least half of the operating experience requirement for level IV certification must be achieved through operating experience with a level III or higher system;

(9) in systems without shift operation, responsible charge experience is active on-site charge and performance of duties in a system in the same or next lower classification;

(10) in systems with shift operation, responsible charge experience is both on-site technical direction and supervision of duties in a system in the same or next lower classification, and active on-site charge of an operating shift, or a major segment of a system, in the same or next lower classification; and

(11) experience is verified only by the current employer's signature on the last page of the application; the department will, in its discretion, contact previous employers if there are questions or if further verification is needed; an applicant with experience in both water and wastewater systems may apply for certification in both areas; in substituting one type of experience for the other, the following applies:

(A) at least 25 percent of the required experience must be in the requested classification; up to 90 percent of the experience in the other classification may be used to complete the requirement;

(B) water treatment and wastewater treatment experience are interchangeable;

(C) water distribution and wastewater collection experience are interchangeable;

(D) lab personnel will not be certified under this chapter; a maximum of one year of lab experience may be applied toward the experience requirement for certification in water treatment or wastewater treatment; and

(E) swimming pool operators will not be certified under this chapter; however, pool experience will be counted as water treatment level I experience toward fulfilling the experience requirement.

(b) Substitutions referred to in (a)(2) of this section may be made as follows:

(1) approved postsecondary education as described in (3) of this subsection may be substituted for up to one-half the required operating experience; the rate of exchange of education for experience is one year of experience for each year of relevant full-time postsecondary education successfully completed;

(2) education substituted for an operating experience requirement may not also be applied to the educational requirement;

(3) an approved technical degree in a related field, such as physical science, biology, chemistry, physics, engineering, mathematics, water treatment, wastewater treatment, electronics, electricity, welding, and hydraulics, will be applied toward certification requirements; for example, a four-year biology degree will substitute for four years of experience toward the certification requirement, but a four-year English degree would not;

(4) for a degree in a nonrelated field, any approved coursework, as described in (3) of this subsection, completed under that degree, will be treated as follows:

(A) the approved coursework will be applied toward certification requirements as calculated under (10) of this subsection; and

(B) 25 percent of the amount arrived at under (10) of this subsection will then be added to that amount, to reach the total amount of coursework that will be applied under this paragraph;

(5) approved coursework, such as that described in (10) of this subsection, completed without receiving a degree will be applied toward certification requirements as calculated under (9) of this subsection;

(6) one year of operating or responsible charge experience may be substituted for either two years of elementary school education or one year of high school education;

(7) a maximum of one year of responsible charge experience in a level II or higher system may be substituted for one year of the postsecondary educational requirement for level III certification;

(8) a maximum of two years of responsible charge experience in a level III or higher system may be substituted for two years of the postsecondary educational requirements for level IV certification;

(9) experience substituted for an educational requirement may not also be applied to the operating or responsible charge experience requirements; and

(10) 45 CEUs in relevant specialized operator training or education may be used to meet one year of the educational requirement or one year of operating experience; 10 hours of approved coursework equals one CEU.

(c) A certificate will be issued only to a person employed in a water/wastewater system in the state. Applicants not yet employed will be issued a letter that states they have passed an exam and that the department will issue a certificate upon employment. Records will be kept on file for one year. If employment is not obtained within the one-year period, the records will be returned and the person must reapply for certification.

TABLE A - MINIMUM OPERATOR EDUCATION AND EXPERIENCE REQUIREMENTS (IN YEARS)

System Type	Operator Level											
	Operator in Training		I		II		III			IV		
	Educ	Op Exp	Educ	Op Exp	Educ	Op Exp	Educ	Op Exp	Resp Charge Exp	Educ	Op Exp	Resp Charge Exp
Wastewater Collection	12	*	12	1	12	4	12	6	0	12	8	0
Wastewater Treatment	12	*	12	1	12	3	14	4	(2)	16	4	(2)
Water Distribution	12	*	12	1	12	4	12	6	0	12	8	0
Water Treatment	12	*	12	1	12	3	14	4	(2)	16	4	(2)

\*Three months operating experience or satisfactory completion of a basic training course approved, in writing, by the department.

Abbreviations

Educ - Education      Op - Operator      Exp - Experience      Resp - Responsible

(E1

18 AAC 74.060. DISPLAY OF CERTIFICATE. The certificate must be displayed in the operator's plant or utility office. (Eff. 8/21/78, Register 67; am 8/24/85, Register 95)

Authority: AS 46.30.060

18 AAC 74.070. CERTIFICATE TERM AND RENEWAL. (a) A certificate and renewal is valid for a three-year period beginning on January 1 of the year of issuance.

(b) The department will send each certificate holder a renewal notice at least 60 days before the certificate lapses. Notice will be mailed to the last address of record. Failure to receive notice does not relieve the holder of the responsibility to renew the certificate.

(c) For a certificate issued after January 1, 1987, an operator shall complete approved courses equal to three CEUs as a condition for renewal of the certificate. An operator holding more than one certificate need only complete the courses required to satisfy renewal requirements for one of the certificates, but shall complete the required courses at least every three years.

(d) The department will renew a certificate only if an operator has actively and continuously performed the duties authorized by the certificate for more than two years of the certificate period and has complied with 18 AAC 74.170(d). (Eff. 8/21/78, Register 67; am 8/24/85, Register 95)

Authority: AS 46.30.060

18 AAC 74.080. LAPSED CERTIFICATES. (a) An operator who seeks renewal of a lapsed certificate shall submit a request for renewal within 180 days after the certificate lapses. Upon receipt of a valid request for renewal, including proof of compliance with 18 AAC 74.070 (c) and (d) and 18 AAC 74.170(d), the department will renew a certificate.

(b) The department will, in its discretion, require reexamination of an operator whose renewal application is received more than 180 days after the certificate lapses. The department will consider board recommendations in determining the need for re-examination under this subsection of an operator whose certificate has lapsed. (Eff. 8/21/78, Register 67; am 8/24/85, Register 95)

Authority: AS 46.30.080

18 AAC 74.090. CANCELED CERTIFICATE. Repealed 2/21/81.

18 AAC 74.100. REVOCATION OF CERTIFICATE. (a) The department will, in its discretion, revoke a certificate upon a finding of fraud or deceit in obtaining the certificate; fraud or deceit in plant recordkeeping; gross negligence in the operation of a system; or violation of the requirements of this chapter. The department will consider board recommendations in deciding whether to revoke a certificate.

(b) An operator whose certificate is revoked may not apply for certification for 365 days after revocation. An application received under this subsection will be treated as an initial application. (Eff. 8/21/78, Register 67; am 8/24/85, Register 95)

Authority: AS 46.30.060  
AS 46.30.080

18 AAC 74.110. TEMPORARY CERTIFICATION. The department will, in its discretion, issue a temporary certificate for good cause shown. The temporary certificate is valid until the earliest date when the operator may be examined and certified under this chapter. A temporary certificate applies only to the

system which the applicant is operating at the time of application, and will not be renewed. The certificate will be issued upon compliance with 18 AAC 74.170(e). (Eff. 8/21/78, Register 67; am 8/24/85, Register 95)

AUTHORITY: AS 46.30.110

18 AAC 74.120. CLASSIFICATION OF WATER SUPPLY AND WASTEWATER SYSTEMS.  
 (a) In this chapter, water supply and wastewater systems are classified as set out in this subsection in Tables B and C.

TABLE B - CLASSIFICATION RATING SYSTEM COLLECTION AND DISTRIBUTION SYSTEMS (By Range of Points)				
System Type	I	II	III	IV
Wastewater Collection System	1-34	35-58	59-77	78 and above
Water Distribution System	1-34	35-58	59-77	78 and above

TABLE C - CLASSIFICATION RATING SYSTEM TREATMENT SYSTEMS (By Range of Points)				
System Type	I	II	III	IV
Wastewater Treatment System	1-30	31-55	56-75	76 and above
Water Treatment System	1-30	31-55	56-75	76 and above

(b) The department will, in its discretion, and after considering advice of the board, modify the rating system in (a) of this section as applied to a particular system if the department finds that there are unusual factors affecting the complexity of unit processes, quality of raw water sources, users of water downstream from wastewater system discharges, or potential health hazards.

(c) To classify water treatment systems under (a) of this section, the department will use the following point system:

<u>Size<sup>a</sup></u>	<u>Item</u>	<u>Points</u>
	Maximum population served, peak day . . . . .	1 point per 10,000 or part
	Design flow (average day) or peak month's production (average day) whichever is larger . . . . .	1 point per 1.0 million gallons per day or part
<u>Water Supply Source</u>		
	Groundwater . . . . .	3-5 <sup>b</sup>
	Surface water . . . . .	4-7 <sup>b</sup>

Adjustment  
 pH adjustment, stability, corrosion control . . . . 7

Treatment  
 Aeration . . . . . 3  
 Ion exchange, catalytic adsorption . . . . . 10<sup>c</sup>  
 Chemical precipitation, coagulation, flocculation . 20  
 Sedimentation . . . . . 5  
 Filtration . . . . . 10  
 Reverse osmosis, electrodialysis, etc. . . . . 20  
 Activated carbon . . . . . 10  
 On-site treatment of system sludge . . . . . 15  
 Ozonation . . . . . 8

Fluoridation . . . . . 5

Disinfection . . . . . 5-8<sup>b</sup>

Laboratory Control by Plant Personnel  
 Bacteriological (complexity) . . . . . 3-10<sup>b</sup>  
 Chemical/physical (complexity) . . . . . 1-10<sup>b</sup>

<sup>a</sup>Limit 10 points each, or maximum of 20 points for size.  
<sup>b</sup>Range of points determined by complexity of unit process operation, effluent discharge scheme, and complexity of onsite laboratory analysis  
<sup>c</sup>Includes potassium permanganate greensand.

(d) To classify wastewater treatment systems under (a) of this section, the department will use the following point system:

<u>Size<sup>a</sup></u>	<u>Item</u>	<u>Points</u>
	Maximum population served, peak day . . . . .	1 point per 10,000 or part
	Design flow (average day) or peak month's production (average day), whichever is larger . . . . .	1 point per 1.0 million gallons per day or part
<u>Pretreatment</u>	Screening, comminution . . . . .	1-3 <sup>b</sup>
	Mechanically cleaned grit chamber . . . . .	3
	Plant pumping of main flow . . . . .	3
	Pre-aeration . . . . .	1
	Flow equalization . . . . .	2
<u>Primary Treatment</u>	Primary clarifiers . . . . .	5
	Combined sedimentation/digestion . . . . .	5
	Chemical addition . . . . .	4
	Dissolved air flotation . . . . .	5
<u>Secondary Treatment</u>	Trickling filter . . . . .	10
	Activated sludge . . . . .	10-15 <sup>b</sup>
	Stabilization ponds without aeration . . . . .	5
	Aerated lagoon . . . . .	8
	Rotating biological surface . . . . .	10
	Activated bio-filter with aeration . . . . .	15
	Activated bio-filter without aeration . . . . .	10
	Pure oxygen . . . . .	20
	Secondary clarifiers . . . . .	5

<u>Item</u>	<u>Points</u>
<u>Advanced Waste Treatment</u>	
Polishing pond . . . . .	2
Chemical/physical without secondary . . . . .	15
Chemical/physical following secondary . . . . .	10
Ion exchange . . . . .	10
Reverse osmosis, electrodialysis . . . . .	15
Chemical recovery, carbon regeneration . . . . .	4
Adsorption . . . . .	10
Filtration . . . . .	10
<u>Solids Handling</u>	
Thickening . . . . .	5
Anaerobic digestion . . . . .	10
Aerobic digestion . . . . .	6
Evaporative sludge drying . . . . .	2
Mechanical dewatering . . . . .	8
Solids reduction (incineration, wet oxidation) . . . . .	12
Residual disposal . . . . .	1-4 <sup>b</sup>
<u>Disinfection</u> . . . . . 5-8 <sup>b</sup>	
Chemical or mechanical dechlorination . . . . .	3
<u>Effluent Discharge</u>	
Receiving stream . . . . .	2-6 <sup>b</sup>
Land application . . . . .	2
Subsurface disposal . . . . .	4
<u>Laboratory Control by Plant Personnel</u>	
Bacteriological (complexity) . . . . .	3-10 <sup>b</sup>
Chemical/Physical (complexity) . . . . .	1-10 <sup>b</sup>

<sup>a</sup>Limit 10 points each, or maximum of 20 points for size.

<sup>b</sup>Range of points determined by complexity of unit process operation, effluent discharge scheme, and complexity of on-site laboratory analysis.

(e) To classify water distribution systems under (a) of this section, the department will use the following point system:

<u>Size<sup>a</sup></u>	<u>Item</u>	<u>Points</u>
	Maximum population served, peak day	1 point per 10,000 or part
	Finished water storage tank(s)	4
	Circulating loops	
	1 loop	10
	2- 4 loops	15
	5-10 loops	20
	Fire hydrants	4
	Standby generators	6
	Miles of water line	
	0-2	2
	2-10	4
	10-100	6
	Over 100	10

<u>Item</u>	<u>Points</u>
In-line disinfection	10
Gas chlorination	5
Hypochlorite chlorination	5
Iodine	5
Ultraviolet light	5
Valves	
Remote sensory	10
Automatic	8
Manual	4
Heat exchangers	10
Percentage of customers with meters	
1- 25%	4
25- 50%	6
50- 75%	8
75-100%	10
Pressure zones	
2-3	10
More than 3	15
Utilidor (walk through)	10

<sup>a</sup>Limit 10 points each.

(f) To classify wastewater collection systems under (a) of this section, the department will use the following point system:

<u>Size<sup>a</sup></u>	<u>Item</u>	<u>Points</u>
	Maximum population served, peak day	1 point per 10,000 or part
	Miles of sewer line	
	0-2	2
	2-10	6
	10-100	15
	100 and over	25
	Utilidor (walk through)	16
	Standby generators at lift stations	6
	Lift station types (Choose one most used in system)	
	Wet well with pump above well	10
	Wet well with submersible pumps	14
	Wet well/dry well	16
	Pneumatic ejectors	16

Register

ENVIRONMENTAL CONSERVATION

18 AAC 74.130

18 AAC 74.160

Number of lift stations

0-5	3
5-15	5
15-35	8
35 and over	10

<sup>a</sup>Limit 10 points each.

(Eff. 8/21/78, Register 67; am 8/24/85, Register 95)

Authority: AS 46.30.010

AS 46.30.080

AS 46.30.090

18 AAC 74.130. TRAINING. Repealed 8/24/85.

18 AAC 74.140. WATER AND WASTEWATER WORKS ADVISORY BOARD. (a) The board will

(1) advise and assist the department as the department certifies operators and classifies water and wastewater systems;

(2) review qualifications of applicants for examination and certification in cooperation with the department or at the applicant's request;

(3) advise the department as the department prepares and gives examinations;

(4) make recommendations to the department as the department issues, cancels, invalidates, or revokes certificates;

(5) assist the department in determining the number of certified operators needed for proper system operation;

(6) make recommendations to the legislature and the governor for legislation concerning operation and maintenance of public water supply and wastewater systems;

(7) assist and advise the department as the department develops and administers a training program; and

(8) give other assistance as requested by the department.  
(Eff. 8/21/78, Register 67; am 8/25/85, Register 95)

Authority: AS 46.30.020

AS 46.30.030

AS 46.30.060

18 AAC 74.150. COMPOSITION OF THE WATER AND WASTEWATER WORKS ADVISORY BOARD. Deleted 8/24/85.

Editors Note: Under AS 44.62.060(b) and 44.62.125(b), 18 AAC 74.150 was deleted by the regulations attorney / / because it lacked statutory authority.

18 AAC 74.160. APPEALS. A person aggrieved by a department action taken under this chapter may ask the board to hear the grievance and make a recommendation to the department. Use of this procedure does not affect any right the aggrieved person may have under the Administrative Procedure Act (AS 44.62).  
(Eff. 8/21/78, Register 67; am 8/24/85, Register 95)

Authority: AS 46.30.080

18 AAC 74.170. FEES. (a) An initial application for examination will be accepted for processing only when accompanied by an application fee of five dollars.

(b) An application for re-examination will be accepted for processing only when accompanied by an application fee of five dollars.

(c) A qualified applicant will be scheduled for an examination only upon receipt of a \$15 examination fee for each examination to be taken.

(d) A certificate shall be renewed upon receipt of a \$30 renewal fee.

(e) A temporary certificate shall be issued upon receipt of a \$5 application fee and a \$15 certificate fee.

(f) An examination fee will be forfeited for failure to take an examination, unless the department is notified, in writing, a minimum of two weeks before the examination date. The fee can then be applied to the next examination cycle without reapplication.

(g) For all department sponsored short courses, the following fee schedule shall apply.

1-day course	- \$ 75
2-day course	100
3-day course	150
4-day course	175
5-day course	200

Short courses shall not be presented with less than 10 students in attendance.

(h) All department sponsored correspondence courses providing CEU credit shall have a fee of \$4 per CEU.

(i) A reciprocal certificate may be issued upon receipt of a \$5 application fee and a \$15 certificate fee.

Authority: AS

18 AAC 74.900. DEFINITIONS. Unless the context indicates otherwise, in this chapter

(1) "applicant" means a person seeking a certificate under this chapter;

(2) "approved" means approved by the department;

(3) "board" means the Water and Wastewater Works Advisory Board created by AS 46.30.020;

(4) "certificate" means a certificate of competency, issued to an operator by the department, stating that the operator has met the requirements for the specified level of the certification program;

(5) "department" means the Department of Environmental Conservation;

(6) "on-site" means to be present at a system for an amount of time and at intervals acceptable to the department, based upon the complexity of the treatment process, or means to be on-call within two hours travel time of the system when not physically present at the system and when there is no back-up operator present who is certified at no less than one level below

the classification of the system and who is designated to assume the operator's duties;

(7) "operating experience" means the time spent at a system in satisfactory performance of operation duties;

(8) "operator" means a person engaged in the on-site operation of a water supply or wastewater system; "operator" does not ordinarily mean an official, such as the city engineer or public works superintendent, exercising only general administrative supervision;

(9) "operator in training" means a person receiving on-the-job training under the supervision of a certified operator or through an organized training program, who desires to obtain a certificate and who is, or can show probable employment as, an operator of a water or wastewater system;

(10) "responsible charge" means the on-site active supervision of system operations;

(11) "service connection" means a pipe, with all its parts, that connects a water or sewer main with building plumbing;

(12) "system" means a water supply system or a wastewater system;

(13) "wastewater collection system" means pipelines or conduits, pumping stations and force mains, and all other related constructions, devices, and appliances used to conduct wastewater to a wastewater treatment system;

(14) "wastewater system" means the system of pipes, structures, equipment, and processes required to collect, carry away, and treat domestic or industrial wastewater and dispose of the effluent;

(15) "wastewater treatment system" means devices, structures, and equipment used to treat, neutralize, stabilize, or dispose of wastewater and residuals;

(16) "water distribution system" means post treatment storage facilities, conduits, mains, lines, pumping stations, or other devices used to carry water to the consumer, and includes a groundwater supply treated only with chlorine;

(17) "water supply system" means any source of water, intake works, collection system, treatment works, storage facility, or distribution system from which water is available for human consumption; "water supply system" includes systems providing water to more than one residence, or to a factory, office building, restaurant, school, or similar facility, but does not include a system serving only a single-family residence; and

(18) "water treatment system" means devices, structures, and equipment used to condition, purify, or refine water for human consumption, and does not include a groundwater supply treated only with chlorine. (Eff. 8/21/78, Register 67; am 2/21/81, Register 77; am 8/24/85, Register 95)

Authority: AS 46.30