

State of Alaska

**DEPARTMENT OF
ENVIRONMENTAL CONSERVATION**

DIVISION OF WATER



18 AAC 74

**WATER AND WASTEWATER
OPERATOR CERTIFICATION AND TRAINING**

*Proposed Amendments
Public Notice Version
June 1, 2016*

18 AAC 74 Article 1 is amended to read:

**ARTICLE 1. REQUIREMENTS FOR A CLASS 1 [I] – CLASS 4 [IV] WATER SYSTEM
OR WASTEWATER SYSTEM**

18 AAC 74.006(4) is repealed and readopted to read:

- (4) community or non-transient non-community water system that
 - (A) has fewer than 100 service connections;
 - (B) is used or intended for use by fewer than 500 individuals per day; and
 - (C) uses a water treatment process that uses
 - (i) coagulation;
 - (ii) chemically aided filtration;
 - (iii) membrane filtration;
 - (iv) ultraviolet light to meet a surface water treatment inactivation requirement;
 - (v) the addition of more than one chemical to accomplish multiple water treatment objectives; or
 - (vi) a combination of water treatment processes not listed in (i) – (v) of this subparagraph that, in the department's determination, requires a high level of operator skill; in determining whether a combination of water treatment processes requires a high level of operator skill, the department will consider the advice of the board;

18 AAC 74.006(5) is repealed and readopted to read:

- (5) community or non-transient non-community water system that

- (A) has fewer than 15 service connections;
- (B) is used or intended for use by 500 or more individuals per day; and
- (C) uses a water treatment process that uses
 - (i) coagulation;
 - (ii) chemically aided filtration;
 - (iii) membrane filtration;
 - (iv) ultraviolet light to meet a surface water treatment inactivation requirement;
 - (v) the addition of more than one chemical to accomplish multiple water treatment objectives; or
 - (vi) a combination of water treatment processes not listed in (i) – (v) of this subparagraph that, in the department’s determination, requires a high level of operator skill; in determining whether a combination of water treatment processes requires a high level of operator skill, the department will consider the advice of the board;

18 AAC 74.006(6) is repealed and readopted to read:

- (6) transient non-community water system that
 - (A) uses a surface water source or a groundwater under the direct influence of surface water source; and
 - (B) uses a water treatment process that uses
 - (i) coagulation;
 - (ii) chemically aided filtration;

(iii) membrane filtration;

(iv) ultraviolet light to meet a surface water treatment inactivation requirement;

(v) the addition of more than one chemical to accomplish multiple water treatment objectives; or

(vi) a combination of water treatment processes not listed in (i) – (v) of this subparagraph that, in the department’s determination, requires a high level of operator skill; in determining whether a combination of water treatment processes requires a high level of operator skill, the department will consider the advice of the board; and

(Eff. 1/18/2001, Register 157; am 12/3/2006, Register 180; am 11/21/2010, Register 196;

am __/__/__, Register __)

Authority: AS 46.30.040 AS 46.30.080 AS 46.30.120

18 AAC 74.010 is repealed and readopted to read:

18 AAC 74.010. Certified Operator Requirements. (a) At all times, a public water system, public wastewater system, and a private wastewater system must have an operator, certified at a level equal to or greater than the classification of the system, on-site at the system, or available by radio or telephone with the ability to be on-site at the system within one hour; and

(b) The owner of a water system or wastewater system may establish shifts to best meet the needs of the system and to ensure public health protection, in accordance with the following;

(1) a primary shift

(A) is the longest shift during a 24 hour period;

(B) is the shift in which operational decisions are made;

(C) shall be no less than six hours in duration, if more than one shift exists within a 24 hour period; and

(D) shall be supervised by an on-site operator certified at a level equal to or greater than the classification of the system.

(2) a secondary shift

(A) shall be no longer in duration than the primary shift;

(B) is the shift in which operational decisions made during the primary shift may be implemented;

(C) shall be supervised by an on-site operator certified at a level no less than one level below the level equal to the classification of the system; and

(D) shall not occur more than two times in a seven day period without a corresponding primary shift on that same day.

(3) a reduced operations shift

(A) is a short duration shift;

(B) is a shift in which an operator may conduct system checks to ensure the system is operating within establish parameters, but no operational changes are made; and

(C) shall be conducted by an on-site operator certified at

(i) a provisional level in the same system type as the system under that operator's control; and

(ii) shall possess adequate training to conduct the duties assigned.

(c) An individual may provide first response services for a public water system, public wastewater system, or a private wastewater system so long as the individual, at minimum,

(1) is adequately trained to identify issues and contact the supervising operator for further direction, and

(2) holds a Provisional or higher level certificate if providing response to a Class 1-4 Water Treatment, Water Distribution, Wastewater Collection or Wastewater Treatment System.

(d) Department approval is required for a method of system supervision other than that described in (b) and (c) of this section. The department will approve, with terms and conditions, or will deny a request under this subsection after considering recommendations of the board. The department may provide interim approval of a request made under this subsection until the next regularly scheduled meeting of the board. (Eff. 8/21/78, Register 67; am 8/24/85, Register 95; am 5/29/93, Register 126; am 1/18/2001, Register 157; am 12/3/06, Register 180; am __/__/__, Register __)

Authority: AS 46.30.040 AS 46.30.080 AS 46.30.120

18 AAC 74.020 is repealed and readopted to read:

18 AAC 74.020. Certification requirements. (a) An applicant seeking certification under 18 AAC 74.005 – 18 AAC 74.120 must submit a completed application to the department, for the level of certification sought

(1) on a form provided by the department; and

(2) accompanied by the fee required by 18 AAC 74.870.

(b) The department will certify an applicant who meets the

- (1) examination requirements of 18 AAC 74.040;
- (2) experience and education requirements of 18 AAC 74.050; and
- (3) fee requirements of 18 AAC 74.870.

(c) All applicants shall be required to disclose past or pending disciplinary action by another certifying agency.

(d) When considering an applicant's application for certification, the department may consider past or pending disciplinary action imposed on the applicant in their capacity as an operator, by another certifying agency.

(e) The department may deny certification to an applicant whose certification has been revoked by another certifying agency.

(f) The department may deny certification to an applicant determined to have falsified or withheld information on their application. (Eff. 8/21/78, Register 67; am 8/24/85, Register 95; am 1/18/2001, Register 157; am 11/21/2010, Register 196; am __/__/__, Register __)

Authority: AS 46.30.060 AS 46.30.080

18 AAC 74.040(a) is amended to read:

18 AAC 74.040. Examination requirements. (a) To be certified to operate a water or wastewater system classified as class 1 [I] – class 4 [IV] under 18 AAC 74.120, or a wastewater treatment system classified as a wastewater stabilization pond system under 18 AAC 74.120(b)(1), an applicant must pass an approved and validated **written** examination that demonstrates the applicant's skills, knowledge, ability, and judgment to operate a system of that classification.

18 AAC 74.040(b) is amended to read:

(b) **To be eligible to take a level 2 – level 4 exam, the examinee must hold a valid passing score in the same system type at one level lower. A passing exam score is valid for three years from January 1 of the year the exam was taken, or for as long as the examinee holds active certification in the same system type.** [TO BE ELIGIBLE TO TAKE AN EXAMINATION, THE APPLICANT MUST MEET THE EDUCATION AND EXPERIENCE REQUIREMENTS OF 18 AAC 74.050 OR HOLD A VALID CERTIFICATE IN THE SAME SYSTEM TYPE AT ONE LEVEL LOWER. THE DEPARTMENT WILL NOTIFY THE APPLICANT OF ELIGIBILITY FOR AN EXAMINATION.] Examinations will be held at least annually, at the time and place announced by the department. The **examinee** [APPLICANT] shall pay the examination fee required by **18 AAC 74.870(b)** [18 AAC 74.870(c)] **when submitting a request for examination.** [AT THE TIME OF THE EXAMINATION.]

18 AAC 74.040(d) is amended to read:

(d) The department will grade each examination administered under this section and notify each **examinee** [APPLICANT] of the results within 60 days after the examination. The department will not provide the completed, graded examination to the **examinee.** [APPLICANT.] The **examinee** [APPLICANT] may review **their** [THE APPLICANT'S] examination results with the department.

18 AAC 74.040(e) is repealed:

(e) Repealed / / . (Eff. 8/21/78, Register 67; am 8/24/85, Register 95; am 1/23/86,

Register 97; am 5/29/93, Register 126; am 1/18/2001, Register 157; am 12/3/2006, Register 180;
 am 11/21/2010, Register 196; am __/__/__, Register __)

Authority: AS 46.30.050 AS 46.30.080

18 AAC 74.050(a)(1) is amended to read:

(1) set out in (i) – (k) of this section to evaluate an **individual’s** [OPERATOR’S] qualifications to operate a wastewater treatment system classified as a wastewater stabilization pond system under 18 AAC 74.120(b)(1);

18 AAC 74.050(a)(2) is amended to read:

(2) set out in Table A of this section, except as provided in (g) of this section, to evaluate an **individual’s** [OPERATOR’S] qualifications to operate a water or wastewater system classified under 18 AAC 74.120, other than a wastewater stabilization pond system.

18 AAC 74.050 Table A is amended to read:

TABLE A
GENERAL OPERATOR EDUCATION AND EXPERIENCE REQUIREMENTS*

(in years)

	Operator Level				
	Provisional	<u>1</u> [I]	<u>2</u> [II]	<u>3</u> [III]	<u>4</u> [IV]

System Type	Ed.	Op. Exp.								
Wastewater Collection	12	**	12	1	12	3	13	4	13	6
Wastewater Treatment	12	**	12	1	12	3	14	4	16	4
Water Distribution	12	**	12	1	12	3	13	4	13	6
Water Treatment	12	**	12	1	12	3	14	4	16	4

Notes: Required periods of education and experience are reflected in years. Twelve years of education represents high school diploma or general educational development (GED) diploma. The department will waive the minimum education requirement for the provisional level and level 1 in accordance with (e)(6) of this section.

*Additional experience and education criteria and substitution requirements are set out in (b) - (g) of this section.

**Three months of operating experience or the completion of a department-approved training course, as described in (c)(1) of this section is required.

Abbreviations:

Ed. - Education Op. Exp. - Operator Experience

18 AAC 74.050(b) is amended to read:

(b) Additional experience criteria referred to in Table A of this section and used by the department to evaluate qualifications of **individuals** [OPERATORS] are subject to the following provisions:

18 AAC 74.050(b)(1) is amended to read:

(1) [IF AN INDIVIDUAL IS EMPLOYED AS AN OPERATOR AT THE TIME OF APPLICATION, THAT EMPLOYMENT EXPERIENCE MUST BE VERIFIED BY THE EMPLOYER'S SIGNATURE ON THE APPLICATION;] the **applicant** [OPERATOR] is responsible for providing verification of **current and** past experience; the department may contact the **applicant's current and** [OPERATOR'S] previous employers;

18 AAC 74.050(b)(2) is amended to read:

(2) at least 50 percent of the operating experience must be obtained in the same system type at no more than one class lower than the level of certification requested, and the department will not allow substitution of education or substitution of operating experience gained in another system type to meet the requirement of this paragraph; [, EXCEPT]

18 AAC 74.050(b)(2)(A) is repealed:

(A) repealed _/_/___.

18 AAC 74.050(b)(2)(B) is repealed:

(B) repealed _/_/___.

18 AAC 74.050(c)(5) is amended to read:

(5) postsecondary education as described in (d) of this section may be substituted for up to 50 percent of the required operating experience for levels **2** [II], **3** [III], and **4** [IV]; the rate of exchange of education for experience is one year of experience for each year of department-approved, full-time postsecondary education successfully completed that meets the requirements of this section;

18 AAC 74.050(d) is amended to read:

(d) Additional education criteria referred to in Table A of this section and used by the department to evaluate qualifications of **individuals** [OPERATORS] are subject to the following provisions:

18 AAC 74.050(d)(1) is amended to read:

(1) the **applicant** [OPERATOR] must provide a transcript, a certificate of completion, or similar verification approved by the department to document education used for certification requirements;

18 AAC 74.050(d)(2) is amended to read:

(2) 45 continuing education units (CEUs) in specialized operator training or education approved by the department will be counted as one year of post[-]secondary education toward the certification requirements; 10 hours of coursework approved by the department equals one CEU; the department will approve specialized training or education coursework if it is [DIRECTLY] related to, or can be applied to, the operation, maintenance, or management of a water supply or wastewater system; the department will consider the advice and recommendations of the board in approving this specialized training or coursework;

18 AAC 74.050(e)(1) is amended to read:

(1) two years of accrued excess water treatment or wastewater treatment experience at a class 2 [II] or higher water treatment or wastewater treatment facility may be used to satisfy a maximum of one year of the postsecondary education requirement for level 3 [III] water treatment or wastewater treatment certification;

18 AAC 74.050(e)(2) is amended to read:

(2) four years of accrued excess water treatment or wastewater treatment experience at a class 3 [III] or higher water treatment or wastewater treatment facility may be used to satisfy a maximum of two years of the postsecondary education requirement for level 4 [IV] water treatment or wastewater treatment certification;

18 AAC 74.050(e)(3) is amended to read:

(3) one year of accrued excess water distribution or wastewater collection experience at a class 2 [II] water distribution or wastewater collection system may be used to satisfy a maximum of six months of the postsecondary education requirement for level 3 [III] water distribution or wastewater collection certification;

18 AAC 74.050(e)(6) is amended to read:

(6) for certification of an individual [OPERATOR] at the provisional level and level 1 [I] certification, the department will waive the minimum education requirements for an applicant who passes a written examination and a practical evaluation.

18 AAC 74.050(f) is amended to read:

(f) [THE DEPARTMENT WILL ADMINISTER LEVEL I EXAMS TO APPLICANTS WHO MEET THE REQUIREMENTS FOR THE PROVISIONAL LEVEL CERTIFICATE.]

Provisional level certificates will be upgraded to level 1 [I] certificates upon satisfactory fulfillment of the certification requirements of level 1 [I] certification and approval of a completed application. Applications for upgrade of provisional level certificates will be reviewed at least annually.

18 AAC 74.050(g)(4)(A) is amended to read:

(A) 12 months of simultaneous supervising and operating experience toward level 1 [I] certification, even if the total number of hours worked during that period of 12 months is less than 1,950 hours;

18 AAC 74.050(g)(4)(B) is amended to read:

(B) 36 months of simultaneous supervising and operating experience toward level 2 [II] certification, even if the total number of hours worked during that period of 36 months is less than 5,850 hours;

18 AAC 74.050(g)(4)(C) is amended to read:

(C) 48 months of simultaneous supervising and operating experience toward level 3 [III] certification, even if the total number of hours worked during that period of 48 months is less than 7,800 hours;

18 AAC 74.050(g)(4)(D) is amended to read:

(D) 48 months of simultaneous supervising and operating experience toward level 4 [IV] water treatment and wastewater treatment certification, even if the total number of hours worked during that period of 48 months is less than 7,800 hours;

18 AAC 74.050(g)(4)(E) is amended to read:

(E) 72 months of simultaneous supervising and operating experience toward level 4 [IV] water distribution and wastewater collection certification, even if the total number of hours worked during that period of 72 months is less than 11,700 hours;

18 AAC 74.050 (h) is amended to read:

(h) A certificate that is issued based on a waiver granted in (g) of this section applies only to the system the operator is operating **at the time of application** [WHEN EXAMINED]. When an operator certified under (g) of this section submits an application and meets the experience requirements of (a) – (e) of this section, the department may upgrade the certificate to one that is transferable.

18 AAC 74.050(i) is amended to read:

(i) To be eligible to [TAKE AN EXAMINATION AND] receive certification to operate a wastewater treatment system classified as a wastewater stabilization pond system under 18 AAC 74.120(b)(1), an applicant must have at least (Eff. 8/21/78, Register 67; am 8/24/85, Register 95; am 5/29/93, Register 126; am 1/18/2001, Register 157; am 12/3/2006, Register 180; am 11/21/2010, Register 196; am __/__/__, Register __)

Authority: AS 46.30.080

18 AAC 74.120(a)(1)(A) is amended to read:

(A) systems with 15 to 500 service connections are classified as class **1**

[I];

18 AAC 74.120(a)(1)(B) is amended to read:

(B) systems with 501 to 5,000 service connections are classified as

class **2** [II];

18 AAC 74.120(a)(1)(C) is amended to read:

(C) systems with 5,001 to 15,000 service connections are classified as class 3 [III];

18 AAC 74.120(a)(1)(D) is amended to read:

(D) systems with more than 15,000 service connections are classified as class 4 [IV];

18 AAC 74.120(a)(3)(A) is amended to read:

(A) wastewater collection systems where gravity is the only means of wastewater flow will be classified as class 1 [I] systems, regardless of the number of service connections;

18 AAC 74.120(b) Table B is amended to read:

TABLE B

CLASSIFICATION RATING SYSTEM:

TREATMENT SYSTEMS

(By Range of Points)

System Type	<u>1</u> [I]	<u>2</u> [II]	<u>3</u> [III]	<u>4</u> [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
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18 AAC 74.120(d)(1) is amended to read:

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

Item	Points
Size	
Peak Day Design Capacity, gallons per day:	
less than 10,000.....	1
10,000 – 50,000.....	2
50,001 – 100,000.....	4
100,001 – 500,000.....	9
500,001 – 1,000,000.....	12
1,000,001 – 5,000,000.....	16
5,000,001 – 10,000,000.....	20
10,000,001 – 50,000,000.....	25
greater than 50,000,000.....	30
Pretreatment	
Influent pumping.....	2

Flow equalization basin	1
Manually cleaned screens	1
Mechanically cleaned screens.....	2
Fine screens, including microscreens	3
Comminutor, barminutor, grinders	2
Grit removal	2
Primary Treatment	
Primary clarifiers	4
Primary clarifiers with chemical addition.....	7
Imhoff tank, or other method of combined sedimentation and digestion, other than a septic tank	3
Dissolved air flotation.....	16
Secondary Treatment	
Trickling filter without recirculation	5
Trickling filter with recirculation.....	8
Activated sludge:	
Oxidation ditch.....	8
Diffused or dispersed aeration	10
Pure oxygen	15
Sequencing batch reactor (SBR), intermittent cycle extended aeration system (ICEAS), or other batch treatment method	20
Additional points if an activated sludge plant	

is operated in high rate mode or contact stabilization mode	2
Rotating biological contactor	10
Activated bio-filter with aeration.....	10
Activated bio-filter without aeration.....	8
Stabilization ponds without aeration.....	5
Aerated lagoon	8
Secondary clarifiers	4
Secondary clarifiers with chemical addition.....	7

Advanced Waste Treatment

Polishing pond or effluent flow equalization.....	2
Chemical and physical treatment without secondary treatment	20
Chemical and physical treatment following secondary treatment	15
Ion exchange	4
Granular media filtration.....	8
Membrane filtration, including reverse osmosis, <u>microfiltration, ultrafiltration or nanofiltration</u>	8 [10]
<u>Membrane filtration, integrated system.....</u>	12
Electrodialysis, electrodialysis reversal	10 [20]
Biological or combined chemical and biological nutrient removal	12
Nitrification by extended aeration only	2
Chemical precipitation of phosphorous	3
pH adjustment	3

Activated carbon columns or beds8

In-plant Odor Control (maximum of 6 points in any combination)

Biofilter3

Adsorption with activated carbon or equal adsorbent.....3

Wet Scrubber **3** [6]

Thermal deactivation with catalytic process.....6

Odor-reducing sprays.....2

Sludge Thickening and Dewatering

Sludge decant tank2

Gravity thickener basin3

Gravity belt thickener4

Screw press5

Centrifuge6

Belt filter press, plate-and-frame press, or vacuum filter8

Sludge bagger.....3

Evaporative sludge drying by means of drying beds2

Additional points if a polymer is added to
sludge before the sludge is put in drying beds3

Sludge Stabilization and Conditioning

Unheated anaerobic digestion8

Heated anaerobic digestion10

Aerobic digestion5

Wet oxidation.....10

Chemical stabilization with lime	3
In-vessel composting, if controlled and operated by the operator as part of routine systems operations.....	10
Static pile composting, if controlled and operated by the operator as part of routine system operations	5
Solids Disposal	
Incineration, if controlled and operated by the operator as part of routine system operations.....	12
Land application, if controlled and operated by the operator as part of routine system operations	5
Sludge lagoon.....	3
Off-site disposal	1
Disinfection	
Liquid and powdered hypochlorites.....	3
Additional points if hypochlorites are generated on-site	2
Gas chlorine	12
<u>Chloro-Alkali on-site generation.....</u>	<u>12</u>
Chlorination using tablets.....	1
Ultraviolet light.....	3
Ozonation <u>without pure oxygen</u>	<u>3</u> [10]
<u>Ozonation with pure liquefied oxygen.....</u>	<u>4</u>
<u>Ozonation with on-site generation of pure oxygen.....</u>	<u>5</u>
Dechlorination with gas	10

Dechlorination with chemical dechlorination agents other than gas3
 Dechlorination using tablets.....1

Effluent Discharge

Plant pumping of effluent2
 Effluent aeration.....2

18 AAC 74.120(d)(2) is amended to read:

(2) for purposes of this subsection, community septic tanks will be considered part of the wastewater collection system, not a primary treatment method; and

18 AAC 74.120(e)(1) is amended to read:

(e) To classify water treatment systems under (b) of this section,

(1) the department will use the following point system:

Item	Points
Size	
Peak day design capacity, gallons per day:	
less than 10,000.....	1
10,000 – 50,000.....	2
50,001 – 100,000.....	4
100,001 – 500,000.....	9
500,001 – 1,000,000.....	12
1,000,001 – 5,000,000.....	16

5,000,001 – 10,000,000.....	20
10,000,001 – 50,000,000.....	25
greater than 50,000,000.....	30

Water Supply Source

Groundwater	2
Groundwater under the direct influence of surface water.....	4
Surface water	6
Surface water maintaining filtration avoidance criteria under 18 AAC 80.620.....	8
Seawater.....	10
Purchased treated water	0
Raw water storage tank.....	<u>3</u> [4]

Pretreatment

Presedimentation basin	4
Hydrocyclone or similar sand separator device	2
Microscreen.....	3
Roughing filter:	
Cartridge filter.....	2
Non-backwashable strainer or filter.....	2
Gravel or rock filter	4
Backwashable granular media filter.....	8
Add-heat system to heat raw water.....	2

Adjustment and Corrosion Control

pH adjustment3

Corrosion inhibitor.....3

Limestone or calcite contactor2

Sequestration.....3

Treatments

Aeration:

In-line venturi-type1

Mechanical or diffused3

Degasification3

Ion exchange4

Non-regenerated sorption processes, including activated alumina,
modified activated alumina, and iron based sorbents3

On-site regeneration of sorption process media.....10

Activated carbon, if not included as a bed layer in another filter:

Activated carbon cartridge or bag filter2

Powdered activated carbon treatment4

Granular activated carbon **contactors** [FILTERS]..... **4** [8]

On-site regeneration of activated carbon16

Chemical oxidation:

Hypochlorite solution.....3

Gas chlorine12

Potassium permanganate.....4

Hydrogen peroxide.....	5
Ozonation <u>without pure oxygen</u>	3 [10]
<u>Ozonation with pure liquefied oxygen</u>	4
<u>Ozonation with on-site generation of pure oxygen</u>	5
Coagulation:	
Primary coagulant	5
Coagulant aid, flocculent, or filter aid	3 points for each chemical
	added, up to a maximum of
	12 points
Rapid mix units:	
Mechanical mixers	5
Injection mixers	3
In-line blender mixers	2
In-line static mixers.....	0 [1]
Flocculation tanks:	
Hydraulic flocculator	4
Mechanical flocculator.....	8
Sedimentation or clarification:	
Tube settlers	2
Inclined-plate, Lamella-type or equivalent	2
Horizontal flow conventional clarifier	4
<u>Batch sedimentation</u>	2
Adsorption clarifier	6

Up-flow solids contact	10
Dissolved air flotation.....	16
Combined rapid mix-coagulation-flocculation-sedimentation unit	20
Filtration:	
Cartridge or bag filter – single unit.....	2
Cartridge or bag filters – staged, multiple units.....	4
Slow sand	4
Granular media.....	8
Membrane <u>filtration, including reverse osmosis, microfiltration, ultrafiltration or nanofiltration</u> [, ALL TYPES].....	8 [10]
<u>Membrane filtration, integrated system.....</u>	12
Diatomaceous earth.....	12
Electrodialysis, electrodialysis reversal, distillation.....	10
Lime softening	16
Recarbonation	8
Fluoridation:	
Sodium fluoride saturator	2
Sodium silicofluoride.....	3
Hydrofluorosilicic acid	5
Disinfection:	
Liquid and powdered hypochlorites.....	3
Additional points if hypochlorites are generated on-site	2
Gas chlorine	12

Chlorination using tablets	1
Ammonia addition for chloramination:	
using liquid ammonia solution.....	3
using ammonia gas.....	12
Chlorine dioxide.....	8
<u>Chloro-Alkali onsite generation.....</u>	12
Ozonation <u>without pure oxygen</u>	3 [10]
<u>Ozonation with pure liquefied oxygen.....</u>	4
<u>Ozonation with on-site generation of pure oxygen.....</u>	5
Ultraviolet light.....	<u>2</u> [3]
<u>Ultraviolet light, for the purposes of meeting required inactivation... 4</u>	
<u>Water storage tank, for the purpose of achieving contact time</u> [CLEARWELL OR FINISHED WATER STORAGE IN PLANT]	3
<u>Finished water storage tank, if the system serves fewer than 500 people or 100 service connections, and</u>	
<u>the tank has a capacity of one million gallons or more</u>	3
<u>the tank has a capacity between 50,000 and 999,999 gallons.....</u>	2
<u>the tank has a capacity of less than 50,000 gallons</u>	1
<u>Pressure tanks</u>	0
On-site treatment of system sludge or backwash:	
Discharge to sewer or other off-site treatment.....	0
Discharge to on-site pond, septic tank, or lagoon.....	2
Mechanical dewatering	6

Filter backwash water or sludge supernatant recycling

groundwater source2

surface water source3

18 AAC 74.120(e)(2) is amended to read:

(2) for purposes of the point system set out in (1) of this subsection, the department will assign a point value to ozonation only once, even if ozonation is used to accomplish multiple water treatment objectives; [.]

18 AAC 74.120(e) is amended by adding a new paragraph to read:

(3) for purposes of the point system set out in (1) of this subsection, a system with a water storage tank for the purpose of achieving contact time and with a water storage tank for the purpose of storing finished water, will only be assigned a point value for the water storage tank used for the purpose of achieving contact time. (Eff. 8/21/78, Register 67; am 8/24/85, Register 95; am 1/18/2001, Register 157; am 12/3/2006, Register 180; am 11/21/2010, Register 196; am __/__/__, Register __)

Authority: AS 46.30.010 AS 46.30.080 AS 46.30.090

18 AAC 74.125(a) is amended to read:

18 AAC 74.125. Transition for systems increasing in classification. (a) If as required under 18 AAC 74.010(a) a supervising operator of primary operating shift of a water **or wastewater** system was certified at a level equal to the classification on or before **{effective date of regulation }** [NOVEMBER 21, 2010] of the system under that operator’s control, and that

system increased in classification under 18 AAC 74.120 on {*effective date of regulation*} [NOVEMBER 21, 2010], that supervising operator of the primary [OPERATING] shift must be certified on or before {*effective date of regulation plus 2 years*} [NOVEMBER 21, 2012] at a level equal to or greater than the higher classification.

18 AAC 74.125(b) is amended to read:

(b) If as required under 18 AAC 74.010(a) a supervising operator of a secondary operating shift of a water **or wastewater** system was certified at no less than one level below the level equal to the classification on or before {*effective date of regulation*} [NOVEMBER 21, 2010] of the system under that operator's control, and that system increased in classification under 18 AAC 74.120 on {*effective date of regulation*} [NOVEMBER 21, 2010], that supervising operator of the secondary [OPERATING] shift must be certified on or before {*effective date of regulation plus 2 years*} [NOVEMBER 21, 2012] at a level no less than one level below the higher classification.

18 AAC 74.125(c) is repealed:

(c) Repealed / / .

18 AAC 74.125(d) is repealed:

(d) Repealed / / . (Eff. 12/3/2006, Register 180; am 11/21/2010, Register 196; am 11/21/2010, Register 196; am / / , Register)

Authority: AS 46.30.010 AS 46.30.080 AS 46.30.090

18 AAC 74.400 is amended to read:

18 AAC 74.400. Applicability. The requirements of **18 AAC 74.410 – 18 AAC 74.440** [18 AAC 74.410 – 18 AAC 74.450] apply to a

(1) community or non-transient non-community water system that

(A) has fewer than 100 service connections;

(B) is used or intended for use by fewer than 500 individuals per day; and

(C) has been classified as a small, untreated or small, treated water system

under **18 AAC 74.405** [18 AAC 74.450];

(2) community or non-transient non-community water system that

(A) has fewer than 15 service connections;

(B) is used or intended for use by 500 or more individuals per day; and

(C) has been classified as a small, untreated or small, treated water system

under **18 AAC 74.405** [18 AAC 74.450]; and

(3) transient non-community water system that

(A) uses a surface water source or a groundwater under the direct influence of surface water source; and

(B) has been classified as a small, treated water system under

18 AAC 74.405 [18 AAC 74.450]. (Eff. 1/18/2001, Register 157; am 12/3/2006, Register 180; am 11/21/2010, Register 196; am __/__/__, Register __)

Authority: AS 46.30.010 AS 46.30.080

18 AAC 74 Article 2 is amended to add a new section to read:

18 AAC 74.405. Classification of small, untreated or small, treated water systems.

(a) Except as provided in 18 AAC 74.006, the department will classify a community or non-transient non-community water system with fewer than 100 service connections that is used or intended for use by fewer than 500 individuals per day, a community or non-transient non-community water system with fewer than 15 service connections that is used or intended for use by more than 500 individuals per day, and a transient non-community water system that uses a surface water source or groundwater under the direct influence of surface water source, as follows:

(1) a water system that does not add chemicals to the water will be classified as a small, untreated water system;

(2) a water system that adds a single chemical to the water will be classified as a small, treated water system;

(3) for purposes of this section, the use of ultraviolet light to meet an inactivation requirement will be considered the equivalent of the addition of a single chemical.

(Eff. __/__/__, Register __)

Authority: AS 46.30.010 AS 46.30.080

18 AAC 74.410 is repealed and readopted to read:

18 AAC 74.410. Certified operator requirements for small, untreated and small, treated water systems. At all times, a public water system described in 18 AAC 74.400 must have an operator, certified at a level equal to or greater than the classification of the system, on-

site at the system, or available by radio or telephone with the ability to be on-site at the system within three hours.

(Eff. 1/18/2001, Register 157; am __/__/__, Register __)

Authority: AS 46.30.010 AS 46.30.080

18 AAC 74 Article 2 is amended to add a new section to read:

18 AAC 74.415. Contract operations. (a) The department may approve a plan for supervision of a water system described in 18 AAC 74.400 by a certified operator who supervises more than one water system. The department will include in its approval any terms and conditions that the department considers necessary to protect human health, safety, and welfare. The system owner must submit a request for approval under this subsection on a form provided by the department. The department will approve a request under this subsection if

(1) the supervising operator is certified at a level equal to or greater than the classification of the water system;

(2) the department determines that the supervising operator will oversee the system in compliance with the requirements of this chapter and 18 AAC 80; and

(3) the department determines that human health, safety, and welfare will be adequately protected.

(b) In approving or denying a request, or revoking an approval under (a) of this section, the department will consider

(1) the complexity of the system;

(2) the proposed frequency of routine visits by the certified operator;

(3) system accessibility;

- (4) plans for response when emergency action is needed;
- (5) total number of systems the certified operator supervises;
- (6) compliance history of other systems under the supervision of the certified operator; and
- (7) other factors relevant to system oversight or to the protection of human health, safety, and welfare.

(Eff. __/__/__, Register __)

Authority: AS 46.30.010 AS 46.30.080

18 AAC 74.420 is repealed and readopted to read:

18 AAC 74.420. Certification requirements for operators of small, untreated or small, treated water systems. (a) An individual seeking certification under 18 AAC 74.400 – 18 AAC 74.440 must submit a completed application to the department, for the level of certification sought

- (1) on a form provided by the department;
 - (2) accompanied by the fee required by 18 AAC 74.870.
- (b) The department will certify an applicant who meets the
- (1) examination requirements of 18 AAC 74.430;
 - (2) experience and education requirements of 18 AAC 74.440; and
 - (3) fee requirements of 18 AAC 74.870.
- (c) All applicants shall be required to disclose past or pending disciplinary action by another certifying agency.
- (d) When considering an individual’s application for certification, the department may

consider past or pending disciplinary action imposed on the applicant in their capacity as an operator, by another certifying agency.

(e) The department may deny certification to an applicant whose certification has been revoked by another certifying agency.

(f) The department may deny certification to an applicant determined to have falsified or withheld information on their application. (Eff. 1/18/2001, Register 157; am 12/3/2006, Register 180; am __/__/__, Register __)

Authority: AS 46.30.010 AS 46.30.060 AS 46.30.080

18 AAC 74.430(a) is amended to read:

18 AAC 74.430. Examination requirements for operators of small, untreated or small, treated water systems. (a) To be certified to operate a water system classified as a small, untreated system or small, treated system under **18 AAC 74.405** [18 AAC 74.450], an **individual** [APPLICANT] must pass an approved and validated **written** examination that demonstrates the **individual's** [APPLICANT'S] skills, knowledge, ability, and judgment to operate a system of that classification in compliance with the requirements of this chapter and 18 AAC 80.

18 AAC 74.430(b) is repealed:

(b) Repealed __/__/__.

18 AAC 74.430(c) is amended to read:

(c) A written validated examination will be held at least annually, at a time and place announced by the department. The **individual** [APPLICANT] shall pay the examination fee required by **18 AAC 74.870(b) when submitting a request for examination** [18 AAC 74.870(c) AT THE TIME OF THE WRITTEN EXAMINATION].

18 AAC 74.430(f) is amended to read:

(f) The department will grade each examination administered under this section and notify each **examinee** [APPLICANT] of the results within 60 days after the examination. The department will not provide the completed, graded examination to the **examinee**. [APPLICANT.] The **examinee** [APPLICANT] may review **their** [THE APPLICANT'S] examination results with the department.

18 AAC 74.430(g) is repealed:

(g) Repealed __/__/__. (Eff. 1/18/2001, Register 157; am 12/3/2006, Register 180; am __/__/__, Register __)

Authority: AS 46.30.010 AS 46.30.050 AS 46.03.080

18 AAC 74.440(a) is amended to read:

18 AAC 74.440. Experience and education requirements for operators of small, untreated or small, treated water systems. (a) The department will use the minimum education and experience requirements and substitution provisions of this section to evaluate an

applicant's qualifications to operate a water system classified as a small, untreated or small, treated water system under **18 AAC 74.405** [18 AAC 74.450].

18 AAC 74.440(b) is amended to read:

(b) To be eligible to [TAKE AN EXAMINATION AND] receive certification, an applicant for certification to operate a small, untreated water system must have at least

18 AAC 74.440(c) is amended to read:

(c) To be eligible to [TAKE AN EXAMINATION AND] receive certification, an applicant for certification to operate a small, treated water system must have at least

(Eff. 1/18/2001, Register 157; am __/__/__, Register __)

Authority: AS 46.30.010 AS 46.30.080

18 AAC 74.450 is repealed:

18 AAC 74.450. Classification of small, untreated or small, treated water systems.

Repealed. (Eff. 1/18/2001, Register 157; am 12/3/2006, Register 180; am 11/21/2010, Register 196; repealed __/__/__, Register __)

18 AAC 74.810(b) is amended to read:

(b) The department will send each certificate holder a renewal notice at least 60 days before the certificate **expires** [LAPSES]. Notice will be mailed to the last address of record. The operator shall keep the department informed of the operator's current mailing address. Failure to receive notice does not relieve the holder of the responsibility to renew the certificate.

18 AAC 74.810(c)(1) is amended to read:

(1) for a small, untreated water system certification, an operator must complete approved courses equal to 0.5 **drinking water core** continuing education units (CEUs);

18 AAC 74.810(c)(2) is amended to read:

(2) for a small, treated water system certification, an operator must complete approved courses equal to one **drinking water core** CEU;

18 AAC 74.810(c)(3) is amended to read:

(3) for certification as an operator at the provisional level or level **1** [I] – level **4** [IV] certification, an operator must complete approved courses equal to three CEUs **of which two CEUs must be core and one CEU may be non-core.**

18 AAC 74.810(c)(4) is amended to read:

(4) for certification to operate a wastewater treatment system classified as a wastewater stabilization pond system under 18 AAC 74.120(b)(1), an operator must complete approved courses equal to 0.5 **core** CEUs.

18 AAC 74.810(d) is amended to read:

(d) An operator holding more than one certificate at the provisional level or level **1** [I] – level **4** [IV] need complete only the courses required to satisfy renewal requirements for one of the certificates, but must complete the required courses at least every three years.

18 AAC 74.810(e) is amended to read:

(e) The department will renew a certificate if an operator pays the fee required by **18 AAC 74.870(f)** [18 AAC 74.870(d)], and is otherwise in compliance with this chapter.

18 AAC 74.810(f) is amended to read:

(f) For purposes of this section, ten hours of approved training equals one CEU. **For applicable college courses one semester hour is equivalent to 1.5 CEUs and one quarter hour is equivalent to one CEU.** The department will approve training if that training is [DIRECTLY] related to, or can be applied to, the operation, maintenance, or management of a water or wastewater system **as follows**;

(1) drinking water core CEUs are those directly related to the drinking water industry or those integral to the operation and maintenance of a drinking water system;

(2) core CEUs are those directly related to the water or wastewater industry or those integral to the operation and maintenance of water or wastewater systems;

(3) non-core CEUs are those still relevant to the water or wastewater industry but indirectly related or peripheral to the industry;

(4) drinking water core and core CEUs may be repeated one time, no less than three years following the original course completion, for half CEU credit;

(5) non-core CEUs may not be repeated for credit;

(6) wastewater stabilization pond courses may be repeated, no less than three years following the original course completion, for full CEU credit for the renewal of wastewater stabilization pond certificates.

18 AAC 74.810(g) is repealed

(g) Repealed __/__/__. (Eff. 1/18/2001, Register 157, am 12/3/2006, Register 180; am 11/21/2010, Register 196; am __/__/__, Register __)

Authority: AS 46.30.060 AS 46.30.080

18 AAC 74.820 is repealed and readopted to read:

18 AAC 74.820. Expired certificates. (a) An individual who seeks renewal of an expired certificate must submit a request for renewal to the department within 365 days after the certificate expires. The department will renew an expired certificate upon receipt of a request for renewal that includes proof of compliance with 18 AAC 74.810 and the expired certificate renewal fee required by 18 AAC 74.870. An individual with an expired certificate is not certified.

(b) The department will not renew a certificate that has expired by more than one year. An individual with a certificate that has expired by more than one year must seek recertification under 18 AAC 74.020 or 18 AAC 74.420. (Eff. 1/18/2001, Register 157; am __/__/__, Register __)

Authority: AS 46.30.080

18 AAC 74.830 is repealed and readopted to read:

18 AAC 74.830. Disciplinary action. (a) The department may enter into a consent agreement with an operator, issue a letter of reprimand to an operator, or suspend or revoke a certificate, upon a determination that one or more of the following acts of misconduct occurred:

- (1) fraud or deceit in obtaining the certificate;

- (2) fraud or deceit in plant record keeping;
- (3) gross negligence in the operation of a system;
- (4) a substantial violation of the requirements of this chapter or 18 AAC 80.

(b) When considering whether to enter into a consent agreement with an operator, issue a letter of reprimand, or whether to suspend or revoke a certificate, the department will consider the potential threat to human health or the environment, the severity of the act of misconduct, and any previous acts of misconduct.

(c) The department will consider board recommendations in deciding whether to enter into a consent agreement with an operator, issue a letter of reprimand to an operator, or suspend or revoke a certificate. Thirty days prior to the board meeting, the department shall issue a notice to the operator, including a description of the allegations; date, time, and location of the board meeting; and how the operator can participate in the meeting. If the alleged act of misconduct poses a clear and immediate threat to public health or environment, the department may waive the 30 day notice in order to hold an immediate meeting of the board, while still providing appropriate notice to the operator. Within 10 days following the meeting, the board shall issue a recommendation to the department based on a presentation of facts, including the testimony of the operator. The department shall issue a decision within 30 days of receiving the board's recommendation.

(d) An operator whose certificate has been suspended shall not be the supervising operator of a system type that is the same as the certificate that has been suspended.

(e) An operator whose certificate has been suspended may have the certificate reinstated at the end of the suspension period provided the certificate renewal requirements of 18 AAC 74.810 are met. The operator shall pay the certificate reinstatement fee required by

18 AAC 74.870(i) at the time of certificate reinstatement.

(f) An operator whose certificate has been revoked shall not be issued future certification and shall forfeit all other valid certificates indefinitely. An operator whose certificate has been revoked may not serve as an operator at any water or wastewater system.

(g) If an operator's certificate has been suspended, operating experience gained during suspension may not be used to satisfy the experience requirements of 18 AAC 74.050 or 18 AAC 74.440.

(h) Disciplinary actions are department decisions, which are subject to review under 18 AAC 74.860; therefore, the commissioner may not participate in a decision made under this section.

74.440. (Eff. 1/18/2001, Register 157; am _/_/__, Register __)

Authority: AS 46.30.060 AS 46.30.080

18 AAC 74.840 is amended to read:

18 AAC 74.840. Temporary certification. In compliance with AS 46.30.110, the department will issue a temporary certificate unless the department determines that human health, safety, and welfare would not adequately be protected. 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 that the applicant is operating at the time of application, and will not be renewed. The **fees** [FEE] required by **18 AAC 74.870(h)** [18 AAC 74.870(e)] must be paid before a temporary certificate will be issued. (Eff. 1/18/2001, Register 157; am _/_/__, Register __)

Authority: AS 46.30.080 AS 46.30.110

18 AAC 74.850(2) is amended to read:

(2) review qualifications of applicants for [EXAMINATION AND] certification in cooperation with the department or at the applicant's request;

18 AAC 74.850(4) is amended to read:

(4) make recommendations to the department as the department issues **a letter of reprimand, or suspends** [, CANCELS, INVALIDATES,] or revokes a certificate;

(Eff. 1/18/2001, Register 157; am __/__/__, Register __)

Authority: As 46.30.020 AS 46.30.030 AS 46.30.060

18 AAC 74.860(c) is amended to read:

(c) **Within 60 days of the director or designee granting a review of a decision, the board shall hold a meeting to review the original decision, consider any additional information provided and develop a recommendation. Thirty days prior to the board meeting, the department shall issue a notice to the requestor of the review, including the date, time and location of the board meeting and how he/she can participate. Within 10 days following the board meeting, the board shall issue a recommendation to the director or designee. The commissioner will not participate in the board meeting or development of**

the board's recommendation. [IF A REVIEW IS GRANTED, THE DIRECTOR OR DESIGNEE MAY REQUEST ADDITIONAL INFORMATION OF THE APPLICANT OR OTHER REQUESTOR. THE DIRECTOR OR DESIGNEE SHALL PROVIDE THE BOARD WITH COPIES OF THE REQUEST FOR REVIEW AND ANY ADDITIONAL

INFORMATION. THE DIRECTOR OR DESIGNEE MAY HOLD A HEARING WITH THE BOARD ATTENDING. THE COMMISSIONER WILL NOT ATTEND OR PARTICIPATE IN ANY HEARING UNDER THIS SUBSECTION. THE BOARD SHALL ISSUE A RECOMMENDATION TO THE DIRECTOR OR THE DIRECTOR'S DESIGNEE REGARDING A DECISION ON THE REQUEST FOR REVIEW. THE COMMISSIONER WILL NOT TAKE PART IN THE BOARD'S DEVELOPMENT OF THAT RECOMMENDATION.]

(Eff. 1/18/2001, Register 157; am _/_/__, Register __)

Authority: AS 46.03.020 AS 46.30.080 AS 46.35.090(e)

18 AAC 74.870 is repealed and readopted to read:

18 AAC 74.870. Fees. (a) All fees listed in this section are nonrefundable except as provided in sections (c) and (n).

(b) The fee for each examination to be taken is \$150.

(c) If the department is notified in writing at least two weeks before a written examination date that an applicant cannot take a scheduled examination and wishes to be rescheduled, the examination fee paid by the applicant will be applied to the next examination cycle without a new reregistration.

(d) The fee to apply for certification is \$100.

(e) The fee to renew an active certificate is \$100.

(f) The fee to renew an expired certificate within 90 days after the certificate expires is \$150.

(g) The fee to renew an expired certificate within 91 to 365 days after the certificate expires is \$300.

(h) The fee to apply for a temporary certificate is \$100.

(i) The fee to reinstate a suspended certificate is \$300

(j) The fee to apply for reciprocity, as described in AS 46.30.100, is \$300.

(k) The fee for a replacement certificate is \$50.

(l) The fee for a department-sponsored operator training classroom course is \$150 per day. The fee is nonrefundable, except as provided in (m) of this section.

(m) The department will cancel an operator training classroom course with fewer than 10 students registered. If the department cancels a course, the fee paid under (l) of this section will be refunded.

(n) The fee for a department-sponsored correspondence course providing continuing education unit (CEU) credits, is \$20 per CEU plus the cost of course materials. (Eff. 1/18/2001, Register 157; am 12/3/2006, Register 180; am 11/21/2010, Register 196; am __/__/__, Register __)

Authority: AS 44.46.025 AS 46.30.060 AS 46.30.100
AS 46.30.030 AS 46.30.080 AS 46.30.110
AS 46.30.050

18 AAC 74.900(8) is amended to read:

(8) “director” means the director of the department’s division **in which the Operator Certification Program resides** [ASSIGNED TO FACILITY CONSTRUCTION AND OPERATION];

18 AAC 74.900(14) is repealed:

(14) repealed _/_/___;

18 AAC 74.900(16) is repealed:

(16) repealed _/_/___;

18 AAC 74.900(27) is amended to read:

(27) “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];

18 AAC 74.900(29) is amended to read:

(29) “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.]

18 AAC 74.900 is amended by adding new definition to read:

(30) “examinee” means an individual who has registered for a certification exam.
(Eff. 8/21/78, Register 67; am 2/21/81, Register 77; am 8/24/85, Register 95; am 5/29/93, Register 126; am 1/18/2001, Register 157; am 12/3/06, Register 180; am _/_/___, Register __)

Authority: AS 46.30.080