

Authority: AS 46.03.020 AS 46.03.710 AS 46.03.720
AS 46.03.050

18 AAC 80.215. Revocation of approval. (a) The department will revoke an approval issued under 18 AAC 80.210 if

- (1) the owner fails to comply with the procedures set out in 18 AAC 80.210; and
- (2) the department determines that revocation is necessary to protect the public health.

(b) If the applicant fails to construct, install, alter, renovate, or improve the public water system within two years after the department issues an approval to construct under 18 AAC 80.210(c), the approval is void and the plans and information required under 18 AAC 80.210(a) must be resubmitted for department review and approval. If during the two-year period the site conditions, plans and information, and requirements in this chapter do not change, and if the applicant pays the fee required by 18 AAC 80.1910(a)(12), the department will grant the applicant an extension. (Eff. 10/1/99, Register 151; am 4/24/2009, Register 190; am 7/25/2010, Register 195)

Authority: AS 46.03.020 AS 46.03.710 AS 46.03.720
AS 46.03.050

18 AAC 80.220. Vehicle used to distribute potable water. (a) The owner of a public water system that uses a vehicle to distribute potable water shall submit the plans and specifications required under 18 AAC 80.200 - 18 AAC 80.205 for each vehicle to the department before using the vehicle to distribute potable water. As the department determines necessary to serve the interests of public health, the department will require that the plans and specifications be signed and sealed by a registered engineer.

(b) After receiving plans and specifications required under 18 AAC 80.200 - 18 AAC 80.205, and if the department determines that an onsite inspection is necessary to serve the interests of public health, the department will require that the owner make the vehicle available for onsite inspection, and will inspect the vehicle no later than 30 days after receiving notice that the vehicle is available for inspection. The owner shall pay the fee required by 18 AAC 80.1910(a)(1) for an inspection conducted under this subsection.

(c) After the department approves the plans and specifications under 18 AAC 80.210, and after a vehicle passes an inspection, if required under (b) of this section, the department will grant final approval to operate under 18 AAC 80.210(k).

(d) An approval to operate under this section does not relieve the owner of the responsibility to operate and maintain the vehicle in compliance with this chapter.

(e) The owner shall conspicuously mark a vehicle used to distribute potable water “POTABLE WATER ONLY.” (Eff. 10/1/99, Register 151; am 4/24/2009, Register 190; am 7/25/2010, Register 195)

Authority: AS 46.03.020 AS 46.03.710 AS 46.03.761
AS 46.03.050 AS 46.03.720

18 AAC 80.225. Application to demonstrate an innovative technology or device. (a) The department will approve an application to demonstrate an innovative technology or device at a public water system if the

(1) purpose of a demonstration is to

(A) assure that the innovative technology or device meets the necessary safety and performance standards of this chapter; and

(B) allow the innovative technology or device to be field-tested in this state without plan review under 18 AAC 80.200 – 18 AAC 80.210 during the demonstration period;

(2) department determines that the requirements of (e) and (f) of this section are met; and

(3) department finds that the public health and the public water system is adequately protected.

(b) The owner of a public water system who proposes the use or application of an innovative technology or device in the public water system’s infrastructure shall submit an application for department approval under this section.

(c) An application under this section must be accompanied by the fee required by 18 AAC 80.1910(a)(10) and must describe the innovative technology or device, its proposed use, and its performance. The application must include

(1) the name of the innovative technology or device;

(2) a list of the construction materials;

(3) the proposed configuration;

(4) performance claims made by the manufacturer;

Article 2. Public Water System Review and Approval Requirements.**Section**

- 200. System classification and plan approval
- 205. Engineering plans
- 207. Capacity
- 210. Department review; post-approval procedures
- 215. Revocation of approval
- 220. Vehicle used to distribute potable water
- 225. Application to demonstrate an innovative technology or device
- 230. Repealed
- 235. Master meter

18 AAC 80.200. System classification and plan approval. (a) The department will classify each public water system as a community water system, non-transient non-community water system, transient non-community water system, or Class C public water system, based on information

(1) submitted by the owner of the system; and

(2) compiled by the department.

(b) Subject to (c), (d), (f), and (g) of this section, in order to construct, install, alter, renovate, operate, or improve a community water system, non-transient non-community water system or transient non-community water system, or any part of one, the owner must have prior written approval of engineering plans that comply with 18 AAC 80.205.

(c) Written approval under this section is not required for an emergency repair or routine maintenance of a public water system or for a single-service line installation or modification.

(d) The design of a public water system in existence on or before October 1, 1999 and that did not receive plan approval by the department must conform to standard sanitary engineering principles and practices and adequately protect the public health. If the system does not conform to standard sanitary engineering principles and practices, the owner may seek department approval for an alternate design for the system by submitting a report that justifies the alternate design. The report must

(1) be signed and sealed by a registered engineer;

(2) include considerations of soil type, surface water influence, groundwater, surface topography, geologic conditions, data showing the capability of the water system source to meet minimum water consumption needs, storage capacity, the production capability of the water treatment plant, well logs, well yield test results, and other conditions considered by the department as important in establishing the adequacy of the system to reliably protect public health;

(3) include a set of engineering plans of the existing system with an accurate description, including the number and location, of potential sources of contamination, water bodies, water sources in the area, and service connections; and

(4) include the name, address, telephone number, and facsimile number of the owner.

(e) If a public water system described in (d) does not adequately protect the public health, the department will require the system to be redesigned and approved in accordance with this chapter.

(f) If the department approves an alternate design under (d) of this section, the owner shall

(1) ensure that the system

(A) continues to meet the primary MCLs as required in 18 AAC 80.300(b); and

(B) meets the secondary MCLs as required in 18 AAC 80.300(c); and

(2) in addition to the monitoring required for the contaminants for which MCLs are set under 18 AAC 80.300, perform any contaminant monitoring that the department determines necessary to serve the interests of public health.

(g) Written approval under this section is not required for a project that is approved to demonstrate an innovative technology or device in a public water system under 18 AAC 80.225, provided the project does not exceed one year from the date of installation to the date that the demonstration ends.

(h) Subject to (i) of this section, the department will approve a Class C public water system if the owner or a registered engineer submits to the department

(1) the fee required by 18 AAC 80.1910(b)(4);

(2) a completed inventory, sources, and system diagram form provided by the department;

(3) the results of nitrate and coliform samples, analyzed by a certified laboratory, indicating those contaminants do not exceed the MCL set at 40 C.F.R. 141.62(b) and 141.63(a) and (b), adopted by reference in 18 AAC 80.010(a); and

(4) a written statement by the owner that the source water protection requirements of 18 AAC 80.015, the minimum separation distance requirements of 18 AAC 80.020, and the cross-connection provisions of 18 AAC 80.025 are met; if a system does not meet the requirements of 18 AAC 80.020, the owner shall obtain a waiver under

18 AAC 80.020(c) - (e).

(i) In addition to the information required by (h) of this section, the owner of a Class C public water system shall submit the information required in (j) of this section, if the system uses a water source

- (1) with a well depth less than 30 feet to the first opening for water collection;
- (2) that is less than 50 horizontal feet to a surface water source;
- (3) that uses an infiltration gallery, spring, rain catchment, or surface water source;
- (4) that requires treatment to meet an MCL set under 18 AAC 80.300; or
- (5) that requires other types of treatment; for purposes of this paragraph, other types of treatment

(A) include

(i) filtration, including granular activated carbon, slow sand, mixed media, and diatomaceous earth filtration;

(ii) fluoridation; and

(iii) corrosion control; and

(B) do not include water softening.

(j) If a Class C public water system uses a water source described in (i) of this section, the owner shall submit to the department

(1) information demonstrating that the water treatment is designed to consistently achieve 99.9 percent removal and inactivation of *Giardia lamblia* cysts and have one NTU or less of treated water turbidity;

(2) proof that the system was designed by a registered engineer;

(3) on a form provided by the department, a written statement by the owner, the person constructing the system, and the engineer who monitored the system's construction that the water system was constructed in accordance with this chapter and provides public health protection; and

(4) a written statement that the

(A) operator understands how to operate the system; or

(B) owner has contracted with a certified operator to operate the system.

(Eff. 10/1/99, Register 151; am 3/25/2001, Register 157; am 4/24/2009, Register 190; am 7/25/2010, Register 195)

Authority: AS 46.03.020 AS 46.03.710 AS 46.04.720
AS 46.03.050

Editor's note: Guidance on standard sanitary engineering principles and practices, as addressed in 18 AAC 80.200(d), may be found in the references listed at 18 AAC 80.010(d).

18 AAC 80.205. Engineering plans. (a) Engineering plans submitted for approval under 18 AAC 80.200 must include

- (1) a completed application, on a current form provided by the department;
 - (2) construction drawings and specifications for
 - (A) the water source;
 - (B) storage;
 - (C) the master meter;
 - (D) the distribution system;
 - (E) the water treatment works; and
 - (F) related structures, including well houses, treatment plant buildings, and pump stations;
 - (3) plans and profiles of the water mains, as applicable;
 - (4) design criteria, calculations, and flow analysis computations for water demand, storage tank sizing, distribution main sizing, pump sizing, and other components of the new public water system if requested by the department to ensure that the design is adequate; and
 - (5) a specification that at least 20 psi of service pressure at the highest elevation or pressure zone of a distribution main be maintained under peak design demand.
- (b) The plans for each community water system, non-transient non-community water system, or transient non-community water system must include
- (1) the fee required under 18 AAC 80.1910(b);

(2) data showing the capability of the public water system source to meet minimum water consumption needs, criteria for water demand calculations, and the production capability of the water plant;

(3) the location, stated as the horizontal position and elevation, of each proposed or existing wastewater treatment and disposal system, sewage pump station, sewer line manhole and cleanout, petroleum storage tank and line, and potential or actual source of pollution or contamination, including the sources listed in Table A in 18 AAC 80.020(a), within 500 feet or less of a proposed water source, regardless of property lines or ownership; however, the department will

(A) waive or modify the requirement of this paragraph, with respect to a particular potential or actual source of pollution or contamination, if the plans include documentation to the department's satisfaction that access to the property where the source is located has been denied, or that another circumstance beyond the owner's control prevents the statement of the source's location is required;

(B) require that the plans include the location of a potential or actual source of pollution or contamination that is more than 500 feet from a proposed water source, if the department considers the information necessary to assess the risk to public health;

(4) the location, in longitude and latitude to the closest second, of each well and surface water intake and the method used to determine longitude and latitude on a form provided by the department;

(5) the overall treatment scheme, including calculations, if required under 18 AAC 80.600 – 18 AAC 80.699, for disinfection and how *Giardia lamblia* and viruses will be removed or inactivated;

(6) the name, address, telephone number, and facsimile number of the owner;

(7) a specification that only lead-free pipe, flux, and solder will be used, as required by 18 AAC 80.500;

(8) for a public water system that uses compressed air to pressurize hydropneumatic tanks, information proving that air quality will not contribute contaminants to the water;

(9) other information that the department determines is necessary to assess compliance with this chapter; and

(10) documentation showing the existence or formation, before beginning construction of the system, of a local government organization, a homeowner's association, a private utility, a commercial entity, or other entity, the purpose of which is to operate and maintain the system.

(c) In addition to the information required by (a) and (b) of this section, the owner shall submit the following information:

(1) for a community water system, non-transient non-community water system, or transient non-community water system proposing to make a change in the water treatment process that could change water quality, such as adding new chemicals, changing the filtration process, or changing the disinfection process,

(A) the water quality test results for raw water and treated water that identify the contaminants for which MCLs are set under 18 AAC 80.300 and important to the design of the treatment process; and

(B) after construction, the effectiveness of the treatment;

(2) for a public water system proposing to use a new source, the results of raw water testing, conducted before operation, as shown in Table B of this paragraph; and

Table B. Minimum Raw Water Testing Requirements for a System Proposing to Use a New Water Source						
	Community or Non-Transient Non-Community		Transient Non-Community		Class C	
	Ground water	Surface Water	Ground water	Surface Water	Ground water	Surface Water
Total Coliform Bacteria	Yes	Yes	Yes	Yes	Yes	Yes
Inorganic Chemicals (not including asbestos)	Yes	Yes	No	No	No	No
Nitrate	Yes	Yes	Yes	Yes	Yes	Yes
Nitrite	Yes	Yes	Yes	Yes	Yes	Yes
Volatile Organic Chemicals	Yes	Yes	No	No	No	No
Secondary Contaminants	Yes	Yes	No	No	No	No

(3) for a community water system, non-transient non-community water system, or transient non-community water system that has a new water source that is

(A) a groundwater source, raw water quality data sufficient for the department to determine whether the source is GWUDISW;

(B) surface water or GWUDISW, raw water quality sufficient to allow the department to determine whether the proposed water treatment equipment complies with 18 AAC 80.600 - 18 AAC 80.680;

(4) for a community water system or non-transient non-community water system whose owner plans to add a disinfectant to the water in any part of the drinking water treatment process, raw water quality data sufficient for the department to determine whether the public water system will comply with 18 AAC 80.300(b)(2)(C);

(5) for a community water system or non-transient non-community water system, raw water quality data sufficient to allow the department to determine whether the proposed water treatment equipment will control the corrosivity of the water;

(6) for all public water systems, raw water quality data for a potential contaminant, if the department determines that the data serves the interest of public health. (Eff. 10/1/99, Register 151; am 1/11/2006, Register 177; am 8/19/2006, Register 179; am 4/24/2009, Register 190; am 7/25/2010, Register 195)

Authority: AS 46.03.020 AS 46.03.710 AS 46.03.720
AS 46.03.050

18 AAC 80.207. Capacity. (a) The department will not issue an approval to construct a new community water system or non-transient non-community water system under 18 AAC 80.210 unless the department determines, based on the information provided under (b) – (d) of this section, that the community water system or non-transient non-community water system has the managerial, financial, and technical capacity to operate in compliance with 40 C.F.R. 141 and this chapter.

(b) The department will base a determination of technical capacity upon the capability of the public water system to consistently produce and deliver water in compliance with this chapter. To assess that capability, the department will examine

(1) the physical infrastructure of the system, including the adequacy of

(A) the source water; and

(B) infrastructure components, including

(i) treatment;

(ii) storage;