

Title 20. Public Health and Welfare
Chapter I. Generally, Department of Health
Subchapter E. Environmental Health
Part 141. Rules Pertaining to Semi-public Water Supplies
Subpart 1. Generally

20 CAR § 141-101. Purpose.

This part is adopted for the purpose of ensuring that all persons in the State of Arkansas receiving water from a semi-public water supply are provided with ample quantities of safe, potable water.

Authority. Arkansas Code § 20-7-109.

20 CAR § 141-102. Definition.

(a)(1) A "semi-public water supply" shall, for the purpose of this part, be defined as any water supply used or made available to the public for drinking or in connection with the manufacturing, processing, or handling of ice, food, or drink.

(2) This definition does not include single family residences, water vending machines, bottled water dispensers, or distribution systems that distribute regulated, tested, and approved water purchased from regulated systems.

(b) **Note.**

(1) Owners of water systems serving a population equal to or exceeding twenty-five (25) people or fifteen (15) connections, sixty (60) days a year:

(A) Are considered a public water supply; and

(B) Must comply with the Department of Health Rules Pertaining to Public Water Supplies, this part.

(2) Semi-public water supply owners anticipating substantial growth should be aware of the department public water rules.

Authority. Arkansas Code § 20-7-109.

20 CAR § 141-103. Responsibility.

Any person, firm, corporation, school, organization, or governmental agency owning or operating a semi-public water supply shall:

(1) Be held responsible for the compliance with this part; and

(2) Submit to the Department of Health:

(A) At least one (1) sample of water for bacteriological analysis every year;

(B) At least one (1) sample of water for nitrate analysis every five (5) years; and

(C) Other types of analyses and monitoring frequencies set as needed whenever requested by the department.

Authority. Arkansas Code § 20-7-109.

20 CAR § 141-104. Quality.

The quality of water made available must conform to the chemical and bacteriological drinking water standards as established by the Department of Health for appropriate public water systems.

Authority. Arkansas Code § 20-7-109.

20 CAR § 141-105. Ground water supplies.

(a) **Location.**

(1) Every ground water supply such as a well or infiltration system and appurtenances thereto must be located:

(A) On a site having good surface drainage, at a higher elevation than, and at a safe distance from any barnyard, privy, cesspool, soil pipe, any pipe through which sewage may back up or overflow or from any other possible source of pollution; and

(B) In such a manner as to prevent the contamination of the water by either the:

- (i) Underground seepage or channels;
- (ii) Lakes; or
- (iii) Surface drainage.

(2)(A) The horizontal distance from and possible source of contamination such as privies, septic tanks, subsurface pits, seepage pits, subsurface sewage disposal fields, and barnyards shall be no less than one hundred feet (100').

(B) This distance shall be used only where conditions indicate them to be safe, and greater distances shall be required where local conditions necessitate.

(3) No well head, well casing, or well pump shall be located in any pit, room, or space extending below ground directly over the well.

(b) Protection.

(1) Wells.

(A) Every well must have a durable, watertight casing extending a sufficient depth to exclude subsurface contamination, as determined by the Department of Health.

(B) In no case shall the casing terminate less than ten feet (10') below the ground surface, or deeper as dictated by the department.

(C) Every well must be protected at the surface by a watertight slab or platform:

(i) Extending a minimum of two feet (2') in all directions from the well; and

(ii) Sloped to provide drainage away from the well.

(D) The casing or curb should extend at least six inches (6") above the graded-up land surface at the well.

(E) The annular space between the excavation line and the casing or curb should be grouted with cement.

(F) The use of pitless adapters is prohibited.

(2) Well cover and seals.

(A) Every well must be provided with an overlapping, water-tight cover at the top of the casing or pipe sleeve to prevent contaminated water or other deleterious material from entering through the opening at the top of the well casing or pipe sleeve.

(B) Every cover, pump, platform, or pump room floor must be watertight and elevated above the adjacent land area.

(3) Pumps.

(A) Pumps must be of suitable design so as to exclude contamination from the water chamber of the pump head.

(B) Use of a bucket lift or ordinary lift pump with a slotted top which is open to contamination or requires priming is prohibited.

(c) **Maintenance.** No owner or occupant of any establishment or premises shall maintain any well, spring, or other source of water used for drinking and domestic purposes:

(1) To which the public has or may have access; and

(2) Which is polluted or so situated or constructed that in any manner that may cause such water to be detrimental to public health.

(d) Restricted wellhead protection zone.

(1) The owners of water supplies utilizing a well source shall effectively control a restricted wellhead protection zone around the well at a minimum of one hundred feet (100') in radius.

(2) Deviation may be approved by the department on a case-by-case basis, provided it can be shown through scientific data that the ground water can be protected.

Authority. Arkansas Code § 20-7-109.

20 CAR § 141-106. Abandonment of wells.

Abandoned wells must be completely filled with clean, selected materials to protect the water-bearing formations against possible contamination and comply with the latest

Commission on Water Well Construction Rules, 17 CAR pt. 15, in regards to the abandonment of wells.

Authority. Arkansas Code § 20-7-109.

20 CAR § 141-107. Surface water supplies.

(a) Surface water supplies shall have continuous disinfection and filtration sufficient to remove giardia and crytosporidium organisms, or additional treatment as deemed appropriate by the Department of Health.

(b)(1) Springs must be properly protected from surface contamination with water-tight curbs and covers.

(2) The curbs shall extend at least one foot (1') above the surrounding ground surface, and the cover shall be constructed to exclude any possibility of contamination.

Authority. Arkansas Code § 20-7-109.

20 CAR § 141-108. Storage and distribution.

(a) **Storage tanks.**

(1) All storage tanks must be completely covered and so constructed as to prevent the possibility of contamination of the water.

(2) They must be constructed of durable material and maintained in good repair.

(3) They shall be of adequate capacity to serve the purpose intended.

(b) **Distribution.**

(1) **Pipe size.** The pipe must be large enough to deliver the required quantity of water at each service connection without excessive pressure reduction.

(2) **Pressure.** Adequate pressure must be maintained at all points in the piping system to:

(A) Serve adequately all fixtures; and

(B) Prevent the reversal of flow in the pipe.

(3) **Proximity to sewers.**

(A) Water and sewers shall be:

- (i) Constructed as far apart as practicable; and
- (ii) Separated by undisturbed and compacted earth.

(B) A minimum horizontal distance of ten feet (10') should be maintained between water lines and sewer lines and other sources of contamination.

(C) Water lines and sewer lines shall not be laid in the same trench except on written approval of the Department of Health.

(D) In cases where it is not practical to maintain a ten-foot separation, the reviewing authority may allow deviation on a case-by-case basis, if supported by scientific data.

(4) **Prohibited services.** Domestic water shall not be supplied to any device or equipment which may permit the contamination of the water supply by back-siphonage or back-flow.

(5) **Cross connections.** Any physical connection is prohibited whereby a potable water supply, whether public or private ownership, is connected to an unsafe water supply system, either inside or outside of any building or buildings.

(6) **Sewage disposal.** No semi-public water system shall provide service to a new building or residence in an unsewered area until the customer provides written documentation that:

(A) The department has approved plans for construction of a sewage disposal facility for the building or residence; or

(B) No disposal system approval is required by the department for the building.

(7) **Plumbing inspection.**

(A) No semi-public water system shall provide new service to any building or residence until the customer provides written documentation that the service line was inspected by a certified plumbing inspector and found to be in substantial compliance with the Arkansas Plumbing Code (Rules Governing Construction, Installation, and Inspection of Plumbing and Drainage), 17 CAR pt. 65.

(B) If the system has no certified plumbing inspector, the written documentation shall be obtained from the department's Area Plumbing Inspector or a certified inspector designated by the Area Inspector.

(C) Temporary service for construction purposes in unsewered areas may be provided only after compliance with subdivision (b)(6) of this section, above.

Authority. Arkansas Code § 20-7-109.

20 CAR § 141-109. Disinfection.

(a)(1) Wells, pumps, and storage tanks, when installed or repaired, and pipe systems or extensions, must be effectively disinfected prior to being placed in service.

(2) Prior to disinfection, all dirt and foreign material must be removed and thoroughly flushed.

(3) Reasonable care must be exercised during construction, installation, and repair to prevent contamination of any unit of the system.

(b)(1) Following disinfection, all treated water must be thoroughly flushed out and bacteriological samples shall be submitted from the well and system to the Department of Health to determine the efficiency of disinfection.

(2) Before the system or well is placed in service, two (2) series of samples collected in a manner described by the department must show that water is bacteriologically safe for drinking purposes.

(c)(1) A method shall be provided for the continuous disinfection of the water supply.

(2) The chlorinating device shall introduce chlorine on a continuous basis.

(3) Chlorine residual test equipment must be provided.

(4) The method of chlorination and the equipment used must be approved by the department.

Authority. Arkansas Code § 20-7-109.

20 CAR § 141-110. Plan review.

(a) Plans and specifications.

(1) The owner or authorized agent of a semi-public water system shall submit two (2) complete sets of engineering plans and specifications to, and receive written approval of, the Department of Health, before constructing or entering into a contract to construct a water supply, water treatment plant and/or distribution system, or any alterations thereto.

(2) Therefore, such engineering plans and specifications must be adhered to unless deviations are submitted to, and receive written approval of, the department.

(b) Extensions to existing distribution.

(1) If the engineering plans are solely for the extension of an existing distribution system, only such information as is necessary for a clear understanding of the proposed extension will be required.

(2) This information must, in general, conform to the requirements for a complete system.

Authority. Arkansas Code § 20-7-109.

20 CAR § 141-111. Penalties.

(a) Every firm, person, association, or corporation violating any of the provisions of Act 1913, No. 96, as amended, or any of the orders or rules made and promulgated in pursuance hereof, shall be deemed guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not less than one hundred dollars (\$100) nor more than five hundred dollars (\$500) or by imprisonment not exceeding one (1) month, or both.

(b) Each day of violation shall constitute a separate offense (Arkansas Code § 20-7-101).

Authority. Arkansas Code § 20-7-109.

20 CAR § 141-112. Severability.

If any provision of this part, or the application thereof to any person or circumstances is held invalid, such invalidity shall not affect other provisions or applications, and to this end the provisions hereto are declared severable.

Authority. Arkansas Code § 20-7-109.

20 CAR § 141-113. Repeal.

All rules and parts of rules in conflict herewith are hereby repealed.

Authority. Arkansas Code § 20-7-109.