

ARKANSAS STATE BOARD OF HEALTH

**RULES AND REGULATIONS
FOR
SEMI-PUBLIC WATER SUPPLIES**

Promulgated Under the Authority of (Act 96 of 1913 as amended)

**Arkansas Department of Health
Little Rock, Arkansas
Fay W. Boozman, Director**

RULES AND REGULATIONS PERTAINING TO SEMI-PUBLIC WATER SUPPLIES

SECTION I. AUTHORITY

These Rules and Regulations Pertaining to Semi-Public Water Supplies are duly adopted and promulgated by the Arkansas State Board of Health pursuant to the authority expressly conferred by the Laws of the State of Arkansas including, without limitation, Act 96 of 1913, as amended (Ark. Code Ann. § 20-7-109).

SECTION II. PURPOSE

These Rules and Regulations are 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.

SECTION III. DEFINITION

A semi-public water supply shall for the purpose of these Regulations 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. 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. NOTE: Owners of water systems serving a population equal to or exceeding 25 people or 15 connections, 60 days a year are considered a public water supply and must comply with the Arkansas Department of Health Rules and Regulations Pertaining to Public Water Supplies. Semi-public water supply owners anticipating substantial growth should be aware of the Arkansas Department of Health public water regulations.

SECTION IV. RESPONSIBILITY

Any person, firm, corporation, school, organization or governmental agency owning or operating a semi-public water supply shall be held responsible for the compliance with these Regulations and shall submit to the State Department of Health at least one sample of water for bacteriological analysis every year, one sample of water for nitrate analysis every five years, and other types of analyses and monitoring frequencies set as needed whenever requested by the Arkansas Department of Health.

SECTION V. QUALITY

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

SECTION VI. GROUND WATER SUPPLIES

A. Location. Every ground water supply such as a well, or infiltration system and appurtenances thereto must be located 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 in such a manner as to prevent the contamination of the water by either the underground seepage or channels, lakes or surface drainage. The horizontal distance from and possible source of contamination such as privies, septic tanks, sub-surface pits, seepage pits, sub-surface sewage disposal fields and barnyards, shall be no less than 100 feet. This distance shall be used only where conditions indicate them to be safe, and greater distances shall be required where local conditions necessitate. 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.** Every well must have a durable, watertight casing extending a sufficient depth to exclude sub-surface contamination, as determined by the Arkansas Department of Health. In no case shall the casing terminate less than ten feet below the ground surface, or deeper as dictated by the Arkansas Department of Health. Every well must be protected at the surface by a watertight slab or platform extending a minimum of two feet in all directions from the well and sloped to provide drainage away from the well. The casing or curb should extend at least six (6) inches above the graded-up land surface at the well. The annular space between the excavation line and the casing or curb should be grouted with cement. The use of pitless adapters is prohibited.

(2) **Well Cover and Seals.** 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. Every cover, pump, platform or pump room floor must be watertight and elevated above the adjacent land area.

(3) **Pumps.** Pumps must be suitable design so as to exclude contamination from the water chamber of the pump head. 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 to which the public has or may have access, and 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. The owners of water supplies utilizing a well source shall effectively control a restricted wellhead protection zone around the well at a minimum of 100 feet in radius. Deviation may be approved by the Arkansas Department of Health on a case-by-case basis: Provided, it can be shown through scientific data that the ground water can be protected.

SECTION VII. 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 Arkansas Water Well Commission Rules and Regulations in regards to the abandonment of wells.

SECTION VIII. SURFACE WATER SUPPLIES

Surface water supplies shall have continuous disinfection and filtration sufficient to remove giardia and cryptosporidium organisms, or additional treatment as deemed appropriate by the

Arkansas Department of Health. Springs must be properly protected from surface contamination with water-tight curbs and covers. The curbs shall extend at least one foot above the surrounding ground surface, and the cover shall be constructed to exclude any possibility of contamination.

SECTION IX. STORAGE AND DISTRIBUTION

A. Storage Tanks. All storage tanks must be completely covered and so constructed as to prevent the possibility of contamination of the water. They must be constructed of durable material and maintained in good repair. 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 serve adequately all fixtures and to prevent the reversal of flow in the pipe.

(3) **Proximity to Sewers.** Water and sewers shall be constructed as far apart as practicable, and shall be separated by undisturbed and compacted earth. A minimum horizontal distance of ten feet should be maintained between water lines and sewer lines and other sources of contamination. Water lines and sewer lines shall not be laid in the same trench except on written approval of the Arkansas Department of Health. 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 the Arkansas Department of Health has approved plans for construction of a sewage disposal facility for the building or residence, or that no disposal system approval is required by the Arkansas Department of Health for the building.

(7) **Plumbing Inspection.** 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 State Plumbing Code (Rules and Regulations Governing Construction, Installation, and Inspection of Plumbing and Drainage).

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

(b) Temporary service for construction purposes, in unsewered areas, may be provided only after compliance with Section IX B (6) above.

SECTION X. DISINFECTION

Wells, pumps, and storage tanks, when installed or repaired, and pipe systems or extensions, must be effectively disinfected prior to being placed in service. Prior to disinfection, all dirt and foreign material must be removed and thoroughly flushed. Reasonable care must be exercised during construction, installation and repair to prevent contamination of any unit of the system. Following disinfection, all treated water must be thoroughly flushed out and bacteriological samples shall be submitted from the well and system to the Arkansas Department of Health to determine the efficiency of disinfection. Before the system or well is placed in service, two series of samples collected in a manner described by the Arkansas Department of Health must show that water is bacteriologically safe for drinking purposes.

A method shall be provided for the continuous disinfection of the water supply. The chlorinating device shall introduce chlorine on a continuous basis. Chlorine residual test equipment must be provided. The method of chlorination, and the equipment used, must be approved by the Arkansas Department of Health.

SECTION XI. PLAN REVIEW

A. Plans and Specifications. The owner or authorized agent of a semi-public water system shall submit two complete sets of engineering plans and specifications to, and receive written approval of, the Arkansas 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. Therefore such engineering plans and specifications must be adhered to unless deviations are submitted to, and receive written approval of, the Arkansas Department of Health.

B. Extensions to Existing Distribution Systems. 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. This information must, in general, conform to the requirements for a complete system.

SECTION XII. PENALTIES

Every firm, person, association or corporation violating any of the provisions of this chapter, or any of the orders, rules, or regulations 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. Each day of violation shall constitute a separate offense. (Ark. Code Ann. 20-7-101).

SECTION XIII. SEVERABILITY

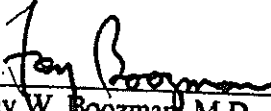
If any provision of these Rules and Regulations, or the application thereof to any person or circumstances is held invalid, such invalidity shall not affect other provisions or applications, and to this end the provisions hereto are declared severable.

SECTION XIV. REPEAL

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

CERTIFICATION

This will certify that the foregoing Rules and Regulations Pertaining to Semi-Public Water Supplies were adopted by the Arkansas Board of Health at a regular session of the Board held in Little Rock on the 27th day of April, 2000.



Fay W. Boozman, M.D.

Secretary

Arkansas Board of Health

The foregoing Rules and Regulations, copy having been filed in my office, are hereby approved on this 11th day of May, 2000.



Mike Huckabee

Governor