

12VAC5-610-1140. General.

A. Authority for this article is found in §[32.1-164](#) B 6 of the Code of Virginia. This article pertains only to new construction where a nonpublic water supply, other than a private well, is to be constructed and utilized in conjunction with an onsite sewage disposal system. Approval of the water supply is an integral part of the issuance of an operation permit for a sewage disposal system (see 12VAC5-610-340) and no separate permit is required. An approval of a water supply under this section connotes a water supply meeting the quantity, quality and construction standards of a satisfactory water supply at the time of approval.

B. Quantity.

1. The system shall be capable of supplying water in adequate quantity for its intended usage. Failure to provide adequate capacity may cause intermittent flows and negative pressures which may cause contamination of the system through cross connections or other system deficiencies.
2. The source shall have a capacity to produce 150 gallons per bedroom per day for residential use.
3. The minimum system capacity (source plus storage) should be capable of delivering a sustained flow of five gallons per minute per connection for 10 minutes for ordinary residential use.

C. Quality.

1. Water sources described in this section shall be considered satisfactory if the water sample or samples test negative for coliform organisms. Sources with positive coliform counts, but with less than 100 MPN/100ml shall be provided with a means for continuous disinfection (chlorination).
2. A sample tap shall be provided at or near the water entry point into the system so that samples may be taken directly from the source; this requirement may be met by utilizing the first tap on the line near where the plumbing enters the house (may be a hose bib), provided the tap precedes any water treatment devices.
3. The entire water system including the well shall be disinfected prior to use. After operating the well to remove any remaining disinfectant, a sample of the water from the well shall be collected by the district or local health department for bacteriological examination. The sample may be collected by the owner, or an agent designated by the owner, provided the sample is submitted to a private, certified (by Division of Consolidated Laboratory Services) laboratory for analysis.
4. If tests indicate that the water is unsatisfactory and no other approval source is available, adequate approved methods of water treatment shall be applied. The district or local health department shall be consulted when treatment is necessary.

D. Approval. All water supplies covered by this chapter shall be approved by the district or local health department before being placed into service as a satisfactory water supply.

12VAC5-610-1170. Cisterns.

A. General. Cisterns shall be considered only when no other source of potable water is feasible.

B. Location and protection. The following precautions should be taken with regard to the location and protection of cisterns:

1. The distance from other sources of pollution shall be the same as for subsurface soil absorption systems contained in Table 4.4 and 12VAC5-610-810 A; and

2. Cisterns shall be located in a manner that will not subject them to flooding.

C. Construction.

1. The cistern shall be constructed of watertight, durable, structurally sound material, with a smooth interior surface.

2. When the cistern is filled by rainfall provisions shall be made to bypass, divert or otherwise remove the water that falls at the beginning of a rain.

3. Cisterns shall be accessible for cleaning.

4. Where a manhole cover is used, it shall be watertight and the manhole shall be at least 24 inches in diameter.

5. Where another type of cover is used, it shall be a solid, watertight cover which overlaps the framed opening and extends vertically down around the frame at least two inches.

6. The top of the cover frame shall be at least 12 inches above the surrounding ground surface.

7. All openings into the cistern shall be screened in order to prevent the entrance of insects, rodents and other animals and pollutants.

8. When screens and filters are utilized for filtering roof runoff, they shall be accessible for regular cleaning.

9. Drain and overflow pipes shall not be connected directly to any sewer, soil pipe, house drain or other waste pipe. An air-gap shall be provided on all drains and overflow pipes. Drains and overflow pipes shall be suitably screened.

10. Asphaltic roofing material or painted roofs should not be utilized in conjunction with cisterns because of the potential leaching of toxic materials.

D. Potability. Cisterns cannot be relied upon to provide potable water without adequate treatment. Adequate treatment consists of removal of solids washed from the roof and continuous disinfection.

Statutory Authority

§§[32.1-12](#) and [32.1-164](#) of the Code of Virginia.

Historical Notes

Derived from VR355-34-02 §4.52, eff. February 5, 1986; amended, eff. May 11, 1988.