

(THIS PRACTICE SUPERCEDES THE PREVIOUS PRACTICE ON THIS SUBJECT SIGNED JULY 15, 1998)

PRACTICE 98-09

BULK WATER AS AN EMERGENCY SOURCE

Operating Parameters for Public Water Systems:

When a Public Water System experiences an emergency water shortage because of a source deficiency, the "Water Supplier" (a person who owns or operates a Public Water System) may supplement the water system source with Bulk Water. When Bulk Water is used for resupply, the Bulk Water operation shall comply with the requirements of this Practice. Bulk Water is defined as drinking water delivered to consumers by means other than pipeline or bottled water. It is typically delivered by tanker truck or trailer.

1. Issuance of Boil Advisory and Public Notice: When a Water Supplier determines that a water shortage exists and that a supply by Bulk Water is necessary, the Water Supplier shall notify the Vermont Water Supply Division (800-823-6500) and issue a Boil Advisory and Public Notice to users. The Public Notice announces the Boil Advisory and describes the basis for its issuance. The Public Notice language must be approved by the Vermont Water Supply Division. While the Boil Advisory is in effect, the Public Notice shall be continuously and conspicuously posted.

2. Lifting a Boil Advisory during Bulk Water Operations: The Vermont Water Supply Division will authorize lifting of the Boil Advisory during Bulk Water operations when the following conditions are satisfied: a) sampling of the distribution system over three consecutive days confirms the absence of total coliform, the presence of a free chlorine residual, and the presence of a clear and palatable water; b) the water system continuously chlorinates during the period of Bulk Water resupply; and c) paragraphs 1, 3, 4, and 5 of this Practice are also complied with. A Boil Advisory will be reimposed should this Practice fail to be complied with or should coliform testing indicate bacteriological contamination of the drinking water.

3. Agreement Between Water Supplier and Bulk Water Provider: When a Water Supplier arranges to re-supply the Public Water System with Bulk Water, the Water Supplier will enter an agreement with the Bulk Water provider to ensure conformance with the following standards and procedures.

a) The truck or trailer tanker (including water hose) used to supply Bulk Water shall be "dedicated" to the sole task of hauling potable drinking water. The tanker and water hoses used to fill and empty the tanker shall not be used for other purposes. The water tank, water pipe/hose, valves, and all other surfaces coming into contact with the Bulk Water shall be constructed of smooth, nonabsorbent, corrosion-resistant, and nontoxic material safe for contact with potable drinking water. Stainless steel, or an equally corrosion-resistant, non-toxic material, is recommended for the water tankers or trailers.

b) The Bulk Water delivered to the Public Water System shall: 1) comply with the requirements of the Vermont Water Supply Rule, Chapter 21-11.2.Bulk Water (Reference A below); 2) be supplied from an approved Public Water System source operated by a Certified Water System Operator; 3) comply with drinking water standards of the Vermont Water Supply Rule; and 4) contain a free chlorine residual of between 1.0 and 4.0 ppm.

4. Water Quality Monitoring during Bulk Water Operations: Routine monitoring during Bulk Water operations focuses on chlorine residuals and bacteriological quality. During each Bulk Water delivery, the Water Supplier shall sample the Bulk Water for free chlorine residual (free chlorine residual between 1 and 4 ppm required) and report the test results to the Water Supply Division monthly. On a monthly basis, the Water Supplier shall collect at least one sample from the distribution system for total coliform (or more than one sample if required by system type and size per the Total Coliform Rule) and one for chlorine residual in accordance with the bacteriological sampling plan. Samples shall be analyzed and test results reported to the Water Supply Division monthly. Should a routine coliform sample test positive for total or fecal coliform, the Water Supplier is required to collect repeat coliform samples consistent with the requirements of the Total Coliform Rule.

5. Bulk Water Re-Supply must be Continuous and Reliable: During Bulk Water operations, the water system shall be continuously and reliably resupplied to meet water system demands. The Water Supplier shall operate the water system to ensure the delivery of safe, palatable drinking water and prevent water outages and inadequate water system pressure. Should a water outage or low/negative water pressure occur during Bulk Water re-supply, the Water Supply Division will require the Water Supplier to issue a Permanent Boil Advisory. This advisory shall remain in effect until a permanent and adequate source of supply is re-established and Bulk Water resupply is no longer needed.

6. Water Buffalo Operations: When Water Buffalos (US Army Water Tanker Trailers) are provided by the Vermont Dept of Public Safety (Emergency Management) or Vermont National Guard for emergency water supply to water system customers, the tanker must be filled from a Public Water System source meeting the requirements and standards of the Vermont Water Supply Rule. Water Suppliers are reminded that Vermont Municipal Governments are the official entity authorized by Vermont law to requisition US Army Water Buffalos. Once delivered, the Water Buffalo is under the direct control of the Municipality. This control is usually coordinated by the Local (Town or City) Health Officer. Water Supplier may choose to offer their assistance to Local Health Officers to help ensure that the Water Buffalo provides adequately (chlorine residual between 1.0 and 4.0 ppm) chlorinated water for their users and is properly secured against unauthorized tanker access.

REFERENCE "A"

Vermont Water Supply Rule, Chapter 21, 11.2 Bulk Water: No person shall distribute or provide bulk water for human consumption unless that water complies with state drinking water standards established in Sub-Chapter 21-6 of this rule. Filling stations for finished water shall comply with Appendix A, subpart 8.11.

Vermont Water Supply Rule, Appendix A, subpart 8.11, Water Loading Stations: Water loading stations present special problems since the fill line may be used for filling both potable water vessels and other tanks or contaminated vessels. To prevent contamination of both the public supply and potable water vessels being filled, the following principles shall be met in the design of water loading stations:

- a) there shall be no backflow to the Public Water Supply;
- b) the piping arrangement shall prevent contamination being transferred from a hauling vessel to others subsequently using the station; and
- c) hoses shall not be contaminated by contact with the ground.

This practice is effective as of August 14, 2001.

Approved: 
Jay L. Rutherford, Director

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