



Campground Dumping Stations Required Cross Connection Protection

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New Hampshire Code of Administrative Rule Env-Dw 505.04 (c) requires that every public water system takes appropriate actions to prevent backflow occurrences and to eliminate cross connections. Also, Env-Dw 720.03 lists lack of a proper backflow prevention device as a significant deficiency.

Campgrounds that have sanitary waste dump stations must ensure that the water line servicing the dump station is properly protected from a cross connection that could allow contaminated water to backflow to the potable water line. This type of cross connection is classified as “high hazard” and must be protected by installation of a **testable reduced pressure zone (RPZ)** backflow device (Figure 1 below). Those devices that NHDES considers acceptable are listed in “[USC Foundation for Cross-Connection Control and Hydraulic Research: List of Approved Backflow Prevention Assemblies](#),” published by the Foundation for Cross Connection Control and Hydraulic Research, University of Southern California. Wherever RPZs are installed, it is important to plumb them for winter removal or otherwise protect them from freezing. RPZs should also be tested by a licensed backflow prevention device tester twice per year or upon start-up if only used seasonally.

One serious cross connection to be aware of is the use of **reverse flush valves** (e.g., Hydro-Flush®, Flush King, RV Dual Flush). These devices contain a valve mechanism incorporated into a PVC connector which allows fresh water under pressure to be connected to the wastewater holding tank for flushing and cleaning. These valves currently DO NOT include proper backflow protection as they present a high risk to the drinking water supply of the campground.

If a campground allows the use of reverse flush valves, the campground **must** install a testable RPZ backflow prevention device on the potable water supply line to the dump station.

Installing a **sustained air gap** (Figure 2 below) is the only other alternative to RPZ devices for protection against high hazard cross connections in potable water supplies. The potable line flow must be separated from the receiving point by a dimension equal to twice the diameter of the potable line or a minimum of 1 inch.

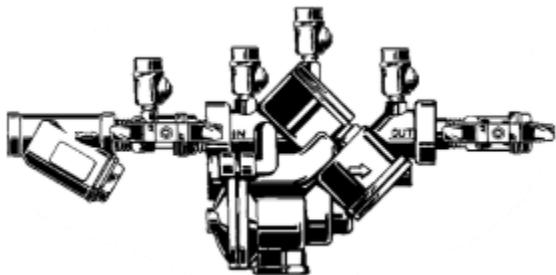


Figure 1: Testable Reduced Pressure Zone (RPZ) valve

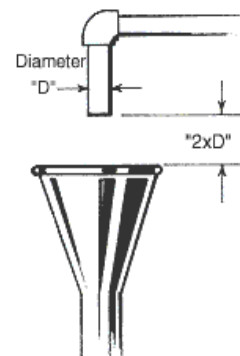


Figure 2: Air Gap