ENVIRONMENTAL
Fact Sheet

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

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WD-DWGB-7-7 2012

Providing a Storage Tank Fill Point for Emergency Bulk Water Delivery

Env-Ws 372.24(e) and Env-Ws 373.19(e) require that community and non-community, non-transient public water systems with atmospheric water storage tank existing as of January 1, 1996, have an auxiliary fill pipe to accommodate water delivery from a tank truck. This requirement is an aspect of emergency planning. The purpose of this fact sheet is to outline the options for complying with this requirement.

It is first necessary to contact all tank truck haulers in your area to determine the diameters and connector types they use. It may be necessary to have multiple adapters to accommodate more than one hauler.

It is also necessary to establish whether the tanker truck(s) will use their own water transfer pump. The use of a transfer pump will affect the time required to transfer a load of water, and may affect whether gravity flow transfer can be accomplished.

The options for atmospheric water storage tank auxiliary fill pipes are discussed below.

Feed-in Through the Booster Pumps Suction Line
The suction manifold piping for the booster pumps may have a plugged fitting that was installed to accommodate future pump(s). Where available, the plug can be removed and a gate valve and appropriate fill port adapters can be added. (If the system does not have a generator and power is out, this obviously will not work.)

Feed-in Through Other Connections on the Atmospheric Tank
Many atmospheric tanks have threaded connection points in the butt end of the tank or along the top crown of the tank. These openings are typically sealed by a screwed plug. If these connection points are not located inside the pump station, it may be necessary to temporarily remove the backfill along the outside crown of the tank to find such fittings. After confirming the type(s) of connectors used by the haulers in your area, determine whether a threaded fitting or a cam-lock fitting is appropriate.

If the connection is outside the control building/pump house, it is preferable to plumb it back into the inside of the pump house. Corrosion protection should be considered on that pipe and backfill should be replaced to cover the pipe to protect against vandalism.

Breather Connections
All atmospheric tanks have a vent pipe, either inside the pump house or outdoors (gooseneck typical). It may be possible to fabricate a fitting that allows both functions (venting and emergency refill) to occur simultaneously while ensuring that the tank has air release capability while filling.

Well Feed Line Manifold
If the incoming raw water feed line is plumbed to a manifold that is adequately sized to receive the flow from a tanker truck, a fill port connection can be installed.

Feed-in Through Bottom Drain
This method is NOT RECOMMENDED due to the potential for stirring up the sediment in the tank bottom each time water is added. A connector in the form of a standpipe is needed, and would need to be fitted with the appropriate fill port connector.

Bulk Water Use
Public water systems using bulk water are required to comply with Env-Dw 304 Emergency Bulk Water Supply for Public Water Systems. Refer to fact sheet WD-DWGB-18-2 "Emergency Bulk Water for Public Water Systems."

For Additional Information
For more information, please contact the Drinking Water and Groundwater Bureau at (603) 271-2513 or dwgbinfo@des.nh.gov or visit our website at www.des.nh.gov; go to the A to Z List and find "Drinking Water and Groundwater Bureau." All of the bureau's fact sheets are online at http://des.nh.gov/organization/commissioner/pip/factsheets/dwgb/index.htm.

Note: This fact sheet is accurate as of March 2012. Statutory or regulatory changes or the availability of additional information after this date may render this information inaccurate or incomplete.