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NORTH CAROLINA
Environmental Quality

July 20, 2018

Timothy Laughlin, PE
NC Petroleum & Convenience Marketers
7300 Glenwood Ave.
Raleigh, NC 27612

RE: OPW 71SO Testable Overfill Prevention Valves

Dear Mr. Laughlin:

On behalf of the NC Petroleum & Convenience Marketers, you have requested the UST Section to review OPW's 71SO-T Testable Automatic Shutoff overfill control device to evaluate if it meets the State's triennial overfill inspection requirements. North Carolina Rule 15A NCAC 02N .0406 incorporates Federal Regulation 40 CFR 280.35 by reference. 40 CFR 280.35(a)(2) requires that overfill prevention equipment be inspected to determine:

(1) the overfill prevention equipment is set to activate at the correct level and
(2) the overfill prevention equipment will activate when regulated substance reaches the correct level.

Therefore, at every operability check, the inspection must show that all parts of the overfill device are present and operational, and that the equipment is installed at the proper height.

Based on our review of the 71SO-T Testable Automatic Shutoff, we do not believe that it meets these testing criteria:

(1) The 71SO-T has a cable attached to the float arm. The cable is accessed at the top of the overfill device. When a technician pulls the cable, the cable pulls the float arm up which closes the poppet inside the valve body. This allows a technician to determine that the float arm is present; it is linked to the poppet; and the poppet closes when the float arm moves up. However, because the cable is attached to the float arm and not to the float itself, a technician cannot verify that the float is present and that it is intact. If the float is not present or is damaged, then the poppet will not close or will not close fully when fuel reaches the level of the float arm. Therefore, the inspection method described in OPW's Installation and Maintenance Instructions does not appear to verify that all equipment is present and operational and that it will activate when a regulated substance reaches the correct shutoff level.

(2) Also, it appears that the 71SO-T has a method by which the height of the shut-off point (95% of tank volume) can be determined at a periodic inspection provided the correct tank chart is used. However, OPW's instructions for testing are very limited, hard to find (imbedded in the appendices with instructions for other models that are not testable) and difficult to understand (e.g., contains other testing information such as checking the height from the bottom of the tank for air quality rules). Therefore, the UST Section recommends that OPW incorporate the testing information into a separate document that is specific to checking the overfill operability and proper calibration of the 71SO-T. It is also recommended that OPW solicit input from testing contractors about the ease of use and understanding of the instructions.

If there is any additional information that you would like us to consider, please submit it me and we will be happy to review it.

Sincerely,

Ruth A. Strauss

Ruth A. Strauss, UST Permits and Inspection Branch Head
Division of Waste Management, NC DEQ

cc: Wolfgang Sanyer, Product Manager, OPW Retail Fueling

North Carolina Department of Environmental Quality | Division of Waste Management
217 West Jones Street | 1646 Mail Service Center | Raleigh, North Carolina 27699-1646
919.707.8200