



Maryland

Department of the Environment

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor

Ben Grumbles, Secretary
Horacio Tablada, Deputy Secretary

September 7, 2018

Mr. Louis Smith
District Manager
OPW Retail Fueling
11800 Red Cedar Lane
Berlin, MD 21811

RE: Conditional Approval for OPW FlexWorks Loop System™

Dear Mr. Smith:

The Maryland Department of the Environment's (the Department) Oil Control Program has reviewed OPW's FlexWorks Loop System™ (Loop System) and OPW's *FlexWorks, Loop System, and Competitor Duct Cleaning Procedures for Pipe Replacements* – issued November 19, 2014. The Department notes that the Loop System does not meet the sloping requirements of Code of Maryland Regulation (COMAR) 26.10.03.06C., which states “*Piping shall rise 1/8 inch for each lateral foot from the tank to the piping end point.*” Additionally, the Department has noted the challenge that the design of the Loop System may pose during release response and cleanup activities related to flushing of the chase/access piping used in the system. Through meeting with you, my staff was able to see the currently available equipment and better understand the installation procedures, which assisted the Department with its review.

COMAR 20.10.03.04A.(4) allows the Department to determine that an alternative installation method for underground storage tanks (USTs) and piping are as protective of human health and the environment as the installation methods prescribed in COMAR 26.10, and are therefore allowed by regulation. Based on its evaluation, the Department has determined that the OPW Loop System is as protective of human health and the environment as conventional methods provided the conditions stated in this letter are met. The Department hereby approves the installation of the Loop System in Maryland as an alternative method to those specified in COMAR provided that the following conditions are met:

- The Department must be notified in writing a minimum of 5 days prior to the installation of the Loop System.
- A copy of this letter must be provided to and maintained by the owner of the UST system using the Loop System. The UST owner must submit a new or amended (for existing USTs) *Notification For Underground Storage Tanks* form listing the “Loop System piping” in Section 5. *Piping Construction Flexible Plastic.*
- The Loop System may not be installed at facilities that are in High Risk Groundwater Use Areas or Well Head Protection Areas as defined in COMAR 26.10.02.03B.
- The Loop System may only be used between dispensers using OPW “Loop Dispenser Sumps”, “Double-Wall Couplings” (DPC or SBC), “Angled Shear Valves”, “Rigid Entry Fittings”, and “Dual Layer Access Pipe”.

- The chase/access and FlexWorks pipes must be continuous sump-to-sump with no joints or couplings.
- Piping must be sloped from the initial dispenser sump toward the UST / submersible turbine pump (STP) sump at a minimum of 1/8 inch per lateral foot, in accordance with COMAR 26.10.03.06C.
- The Loop System pipe must be installed to meet the minimum burial depth required by COMAR 26.10.03.06B.
- The Loop System is only permitted for use with pressurized product piping systems.
- Flexible piping may not be used for vapor, vent, or Stage II piping systems.
- All containment sumps associated with the Loop System must have a functioning sump sensor, and each sensor must be programmed for positive shut-down of the STP in the event of detection of liquid.
 - Allowable alternative: The interstice of the entire Loop Piping must be under continuous vacuum in accordance to OPW vacuum monitoring specifications, and the system must be on positive shut-down of the STP in the event of a breach in the pipe.
- Interstitial test tubes must be open within each containment sump following testing of the interstice to allow detection of a regulated substance. (Not applicable if vacuum monitoring is implemented.)
- Interstitial monitoring of the secondary piping must be the primary method of monthly release detection for the piping system.
- The interstice of the Loop System piping must be tested in accordance with OPW specifications upon completion of the pipe system installation and every 3 years thereafter.
- The Department reserves the right to require excavation of the Loop System chase/access pipe if for any reason the primary or secondary pipe fails a tightness test, is otherwise compromised, or a regulated substance enters the chase/access pipe in any manner.
- Loop System piping placed in temporary closure status must be emptied of all liquid following OPW's *FlexWorks, Loop System, and Competitor Duct Cleaning Procedures for Pipe Replacements* procedures.
- Loop System piping may not be permanently closed in-place. Loop System piping must be removed from the ground and the chase/access pipe must be cleaned in accordance with OPW's *FlexWorks, Loop System, and Competitor Duct Cleaning Procedures for Pipe Replacements* protocol and the chase/access pipe must be completely filled with a solid inert material or permanently removed from the ground.
- The installation, repair, or upgrade of an UST system including the Loop System must be performed under the continuous on-site presence and supervision of a Maryland certified underground storage system technician.

Mr. Louis Smith

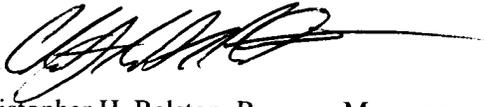
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- The Maryland certified underground storage system technician installing the Loop System must hold a valid OPW FlexWorks Certification from OPW at the time of installation.

OPW has stated that the Loop System is a very safe and effective underground piping product provided it is installed per OPW's specifications. Therefore, it is incumbent upon OPW to ensure that the Loop System is installed in Maryland as specified by OPW and in compliance with all of the conditions in this letter. The Department may reevaluate some or all of these conditions in the future based upon overall performance of installed systems, including retracting this conditional approval letter.

If you have any questions, please contact Mr. Thomas Walter, Chief of the Compliance Division at 410-537-3442 (email: tom.walter@maryland.gov).

Sincerely,



Christopher H. Ralston, Program Manager
Oil Control Program

cc: Ms. Jackie Ryan, Regional Supervisor, Oil Control Program
Mr. Thomas Walter, Chief of Compliance Division, Oil Control Program
Mr. Michael Jester, Regional Supervisor, Oil Control Program
Ms. Kaley Laleker, Acting Director, Land and Materials Administration