



May 17, 2023

Mr. Loren Swalheim
Director, Global Technical Services
Franklin Electric Fueling Systems
3760 Marsh Road
Madison, WI 53718

RE: REVISED – CONDITIONAL APPROVAL for FEFS APT® XP FLEXIBLE PIPING

Dear Mr. Swalheim:

The Maryland Department of the Environment's (MDE's) Oil Control Program (OCP) has reviewed the revised Franklin Electric Fueling Systems (FEFS) *APT® XP Flexible Pipework Install Guide (FFS-0029 r13)* released April 19, 2023, and the FEFS letter dated July 8, 2022, requesting MDE's approval for APT® XP flexible piping systems installation without required slope in accordance with Code of Maryland Regulation (COMAR) 26.10.03.06E, which states "*Unless otherwise approved by the Department, ensure piping rises 1/8 of an inch for each lateral foot from the UST to the piping endpoint.*" Note that this revised conditional approval replaces MDE's *Conditional Approval for FFS APT® XP Pipe* letter, dated October 4, 2022.

Based on MDE's evaluation of the updated *APT® XP Flexible Pipework Install Guide (Install Guide)*, MDE has determined the installation of the APT XP flexible piping system is no less protective of human health and the environment provided the following conditions are met:

- MDE must be notified in writing a minimum of 5 days prior to the installation of APT XP flexible piping that will not have a fall of 1/8 inch per lateral foot from the pipe endpoint towards the underground storage tank (UST).
- If APT XP flexible piping is installed and does not have piping slope in accordance with 26.10.03.06E, a copy of this letter must be provided to and maintained by the owner of the UST system.
- APT XP flexible piping without slope in accordance with COMAR 26.10.03.06E may not be installed at facilities that are in High Risk Groundwater Use Areas or Well Head Protection Areas as defined in COMAR 26.10.07.02B.
- APT XP flexible piping without slope falling towards the UST may only be used between dispensers and must be flat and even and enter the containment sump using an APT ducted double wall rigid entry boot and connected using APT XP pipe clamshell fittings.

- APT XP flexible piping without slope falling towards the UST must be installed within APT XP ducting / pipe chase that is even, straight, and without sags or slack. The APT XP ducting / pipe chase and APT XP flexible piping 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 26.10.03.06E.
- The APT XP flexible piping must be installed to meet the minimum burial depth and clearances in accordance with COMAR 26.10.03.06.
- The APT XP flexible piping without slope towards the UST is only permitted for use with pressurized product piping systems.
- In accordance with COMAR 26.10.03.02D, flexible piping may not be used for direct fill lines, vents, or Stage II vapor recovery lines.
- All containment sumps associated with the APT XP flexible piping without slope towards the UST 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.
- Interstitial test tubes must be open within each containment sump following testing of the interstice to allow detection of the regulated substance. (Not applicable if continuous vacuum monitoring is implemented and the STP is on positive shut-down in the event of a breach in the pipe.)
- The interstice of the APT XP flexible piping without slope towards the UST must be tested in accordance with FEFS specifications upon completion of the pipe installation and every 3 years thereafter.
- MDE reserves the right to require excavation of the APT XP flexible piping without slope towards the UST and ducting / pipe chase if for any reason the primary or secondary pipe fails a tightness test, is otherwise compromised, or a regulated substance enters the ducting / pipe chase in any manner.
- The APT XP flexible piping without slope towards the UST placed in temporary closure status must be emptied of all liquid following FEFS procedures outlined in Section 3.3.9 of the *Install Guide: Installing APT® Pipe Within an Existing Pipe Chase / Duct*.
- APT XP flexible piping without slope towards the UST may not be permanently closed in-place. The APT XP flexible piping without slope must be removed from the ground and the

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ducting / pipe chase must be cleaned in accordance with Section 3.3.9 of the *Install Guide* ducting cleaning protocol and the ducting / pipe chase must be completely filled with a solid inert material or permanently removed from the ground.

- The installation, repair, or upgrade of a UST system including the APT XP flexible piping must be performed under the continuous on-site presence and supervision of a Maryland certified UST system technician.
- The Maryland certified UST system technician installing the APT XP flexible piping must hold a valid FEFS APT XP flexible piping certification at the time of installation.

FEFS has stated the APT XP flexible piping without slope is safe and effective underground piping provided it is installed in accordance with FEFS specifications. Therefore, it is incumbent of FEFS to ensure the APT XP flexible piping without slope towards the UST is installed in Maryland as specified by FEFS and in compliance with all of the conditions in this letter. MDE may reevaluate 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 OCP's Compliance Division at 410-537-3442 (email: tom.walter@maryland.gov).

Sincerely,



Christopher H. Ralston, Program Manager
Oil Control Program

cc: Mr. Thomas Walter, Chief, Compliance Division, Oil Control Program