


ASK THE TAC

Our wastewater treatment plant operators are concerned about the release of cure water from a cured-in-place pipe (CIPP) installation upstream of the headworks. How should we address inhibition to the treatment process?

 This question seems to be on a lot of minds these days. With the interest in styrene emissions, concerns also arise about PFAS and potential temperature differential in the raw wastewater.

Let's address PFAS first. There is presently no PFAS used in the manufacture of CIPP resins. Secondly, temperature. This concern is ideally limited to water cured systems but is also associated with steam cured installations. Both systems require high temperatures for curing with an ASTM F1216 requirement for cooling of the pipe (Paragraph 7.7: Cool-Down). The result is the introduction of cooling water to a temperature below 100° F (38° C) for water cured installations and below 113° F (45° C) for steam cured installations. Assuming these temperatures as the anticipated release temperature of the cure water ensures that the risk of a heat-related inhibition to the treatment process is small. More on this as we talk about styrene.

Finally, styrene. NASSCO has a library of styrene safety resources at www.nassco.org. These are free to download and include the recently revised

"Guideline for the Safe Use and Handling of Styrene-Based Resins in Cured-in-Place Pipe." The document acknowledges the risk and offers the following for water cured installations:

"In cases where an interceptor is rehabilitated immediately upstream of a wastewater treatment plant, the customer may request additional measures to lower the styrene content of the cure water. Carbon filters and aeration have been used to lower cure water styrene content...the temperature of the cure water may be of greater concern than the styrene content...Properly cooling the cure water is especially important..."

NASSCO has previously funded research on CIPP steam cured emissions containing styrene. Our next research initiative focuses on establishing the styrene discharge concentration in cure water that may create bio-inhibition at publicly owned treatment plants. With a goal of completing this in the next calendar year, the study will include a literature review of peer reviewed research; establishing laboratory inhibition standards; and refining recommendations from our safe use and handling guidelines.



Have a technical question? Email NASSCO's Technical Advisory Council
at TAC@NASSCO.ORG