



# TechNotes

Editor - Roland Asp, CET

#488

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## NFSA TechNotes #488 - Environmental Issues with Inspections

While the discharge of water has been a concern of the industry for decades with clear requirements on drain sizes, locations of discharge and ensuring the discharge does not cause damage, environmental awareness continues to grow and present many new challenges for the industry to overcome. Drinking water and potential pollutants to our environment continue to be a high priority and must be addressed accordingly.

### Forever Chemicals

At some point all wastewater released will eventually make it back to our water supply and we continue to find that our water treatment methods are simply not sufficient. We can look no further than some of the most common pollutants found in today's water often referred to as "Forever Chemicals." One of the most talked about in recent years is Polyfluoroalkyl substances, commonly referred to as PFAs. The world has used PFAs for many years in all sorts of products and applications from plastic, non-stick, food packaging to cosmetics just to name a few. PFAs are commonly linked with cancer, reproductive and immune system diseases.

They are known as "Forever Chemicals" as their chemical components break down extremely slowly and can remain in our water and soil for decades if not longer. PFAs were widely used in *Aqueous Film Forming Foam* or AFFF by the military, airports, and fire service. The runoff from its use has contaminated everything from food, water and is found in the blood stream most living creatures.

This is only one example of why federal, state, and local jurisdictions are now requiring the filtering or collection of water discharged from many types of water discharge including certain fire protection systems.

While the use of PFAs is being widely restricted and prohibited, the question becomes how we deal with the discharge from existing foam systems and other types of fire protection systems that may produce harmful runoff polluting the environment.

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## Chlorinated Water

In addition to the restrictions on the use of PFAs, we continue to see chlorinated water discharged from public water supplies being required to be filtered with sandbags or collected in bladders and even tanks used to collect all discharge. We have even started to see requirements in NFPA 25 *Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems* to comply with state and local health regulations in regards in the use of antifreeze.

## Conclusion

The water discharge from fire sprinkler systems can contain chemical pollutants like corrosion inhibitors, lead and other pollutants already found in the water supply system. This has caused many jurisdictions to require the control, containment, capture, and disposal of water discharge. One example of this is California, which has the most restrictive requirements in the US mandating water discharge management.

With ever increasing requirements, it is imperative that the industry continues to address proper water discharge best practices and conforms with all federal, state, and local requirements.

Please join the National Fire Sprinkler Association on Tuesday, June 21st from 12:30 PM to 1:30 pm (ET) for a Tech Tuesday panel discussion - [Environmental Issues with ITM](#), consisting of a cross section of industry experts, representing wastewater quality enforcement, product manufacturers, contractors, and authorities having jurisdiction.

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### NFPA Technical Meeting

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[NFSA Voting Guide](#)

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