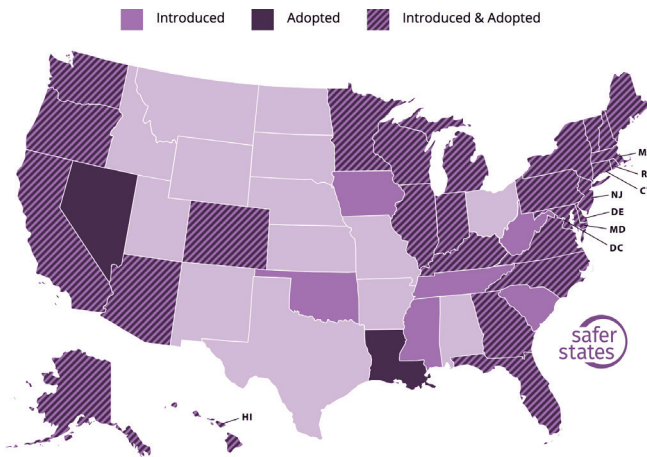


# Innovative Solutions for AFFF Destruction and PFAS Management

## Destroy PFAS Caused by Firefighting Foams

Aqueous Film Forming Foams (AFFF) are extensively used to combat flammable liquid fires across various sectors, including military, industrial, commercial, and airport applications. The widespread use of AFFF has resulted in PFAS contamination in drinking water sources near numerous Department of Defense (DOD) installations, raising serious environmental concerns.



## AFFF Industry Shift

- The DOD aims to phase out AFFF by October 1, 2024, per the National Defense Authorization Act for Fiscal Year 2020.
- Ongoing efforts to eliminate AFFF in about 1,500 facilities and 6,800 mobile assets.
- Transition costs over \$2.1B

## States are Banning & Restricting PFAS in AFFF

Some companies have already banned the production of AFFF and other substances containing PFAS, and 300 municipalities are involved in MDL 2873 a federal class action lawsuit in South Carolina, in which there are over 10,000 associated cases.



99.999% PFAS  
Destruction



No toxic  
by-products



No toxic  
air emissions



Safe &  
Modular



Low Cost



Validated

## Why Onvector?

Onvector has been at the forefront of developing solutions for the PFAS challenge since 2016. Our innovative Plasma Vortex technology offers a proven, cost-effective method for achieving complete PFAS destruction without generating toxic by-products or harmful emissions. This approach ensures safe, efficient disposal, enabling clients to comply with regulatory demands and effectively address environmental concerns.

# Innovative Solutions for AFFF Destruction and PFAS Management

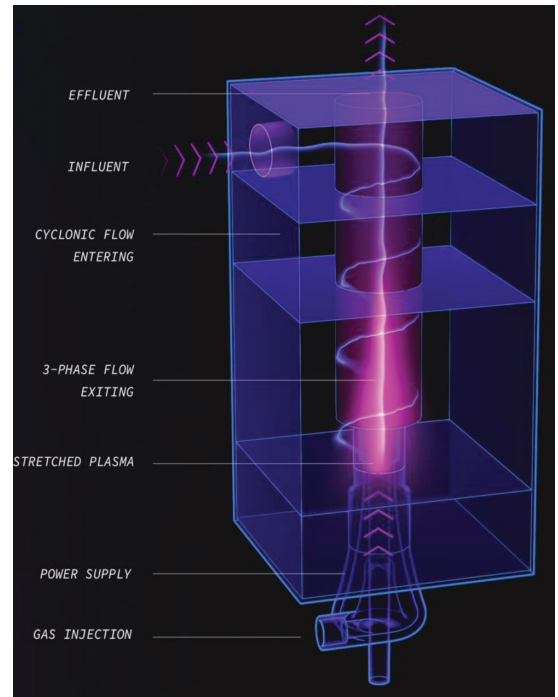
## Tailored Solutions for Diverse Applications:

Onvector's services cater to a wide range of organization, ensuring compliance with emerging regulations and safe management of AFFF waste.

- Military installations
- Airports
- Municipal fire departments
- Oil and gas operations
- Petrochemical facilities

## Onvector Technology

Onvector's Plasma Vortex technology employs ionized gas to rapidly destroy PFAS, breaking down harmful compounds into harmless, non-reactive materials like fluoride, sulfate, and water. This safe and modular system operates without extreme temperatures or pressures, facilitating seamless integration into various operational environments.



## Case Study: Joint Base Cape Cod

*How Onvector eliminated PFAS contamination at Joint Base Cape Cod using its Plasma Vortex technology*

**Challenge:** PFAS are present in groundwater at the former Joint Base Cape Cod Fire Training Area primarily due to historical use of AFFF. The PFAS compounds have migrated into the aquifer underneath JBCC, which serves as a source of drinking water for neighboring communities.

**Solution:** The solution to demonstrate Plasma Vortex technology involved two steps. First, ECT2 deployed a pilot groundwater treatment system using regenerable ion exchange to concentrate PFAS from the groundwater at a former Fire Training Area. Second, Onvector's Plasma Vortex technology was used to convert this waste into harmless by-products, such as fluoride ions, carbon dioxide, and water, thus preventing PFAS contamination of drinking water.



[Read the full case study here.](#)