

Informational Meeting – 5/26/2022

# AFFF Take-Back Program Update and Municipal Fire Department Guidance

Speakers: Jeff Morrissette, State Fire Administrator, DESPP-CFPC  
Ray Frigon and Shannon Pociu, CT DEEP Remediation Division



AFFF spill to the Farmington River, Windsor, CT, June 9, 2019

# AGENDA

- Background on AFFF Take-Back Program
- Decontamination Pilot Study
- New Guidance for Municipal Fire Department Apparatus
- Q & A



# CT AFFF Take-Back Program Background

- ❑ Planning for an AFFF Take-Back Program began in 2019 prior to the State's [PFAS Action Plan](#)
- ❑ June 2019 - [Advisory Bulletin](#) issued on AFFF use
- ❑ Feb. 5, 2021 - PFAS-free foam selected by DESPP with DEEP input.
- ❑ June 30, 2021 - [Alternative Fluorine-Free Foam \(F3\) identified for use](#) by DEEP for pending legislation
- ❑ July 13, 2021 – [Public Act 21-191 signed, AAC the Use of PFAS in Firefighting Foam](#)
  - Banned training with AFFF upon passage
  - Banned most AFFF uses as of 10/1/21
  - Directed DEEP to initiate an AFFF Take-Back Program (began in April 2021)

# AFFF Take-Back Program Phases

Joint DEEP/DESPP effort supported by \$2M bond

- ✓ Phase 1 – Container Collection & Disposal for state/municipal AFFF concentrate
  - Launched in April 2021; Completed March 2022
  - **35,300 gal.+ collected from >250 fire departments**
  - **Cost of almost \$900,000** for pick up and safe disposal of AFFF in containers
- ✓ Phase 2 – Decontamination study and foam trailer cleaning: **Initiated Summer 2021**
- ☐ Phase 3 – Remove AFFF from onboard apparatus: **Pending Summer 2022**



# Decon Demonstration Project Goals

## Risk reduction rather than elimination

- Gross PFAS removal
- How to clean?
- Clean to what level? ppb? ppt?

## Waste minimization

## Cost-benefit analysis

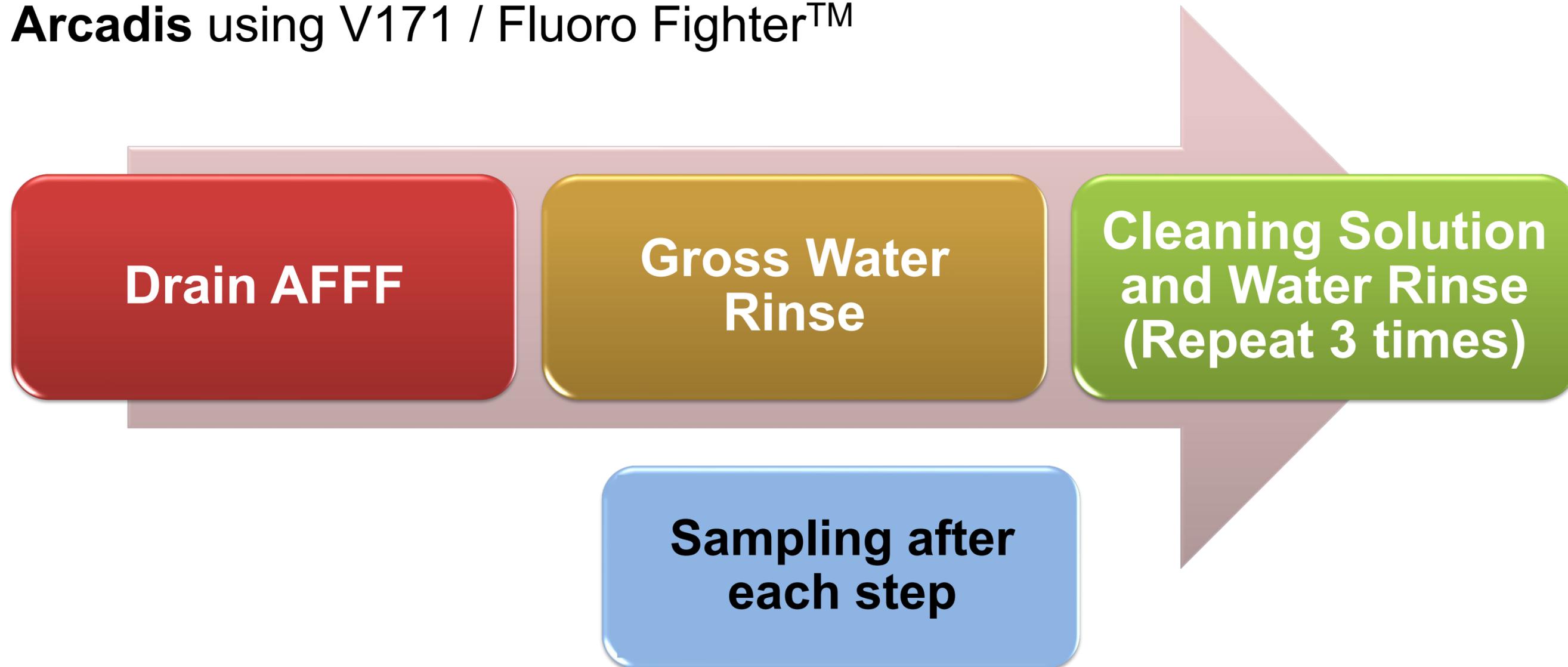
- Clean vs. replace equipment?
- On-site treatment of waste liquids vs. off-site disposal?

## Refine SOP for remaining trailers and tailor approach for cleaning municipal fire apparatus



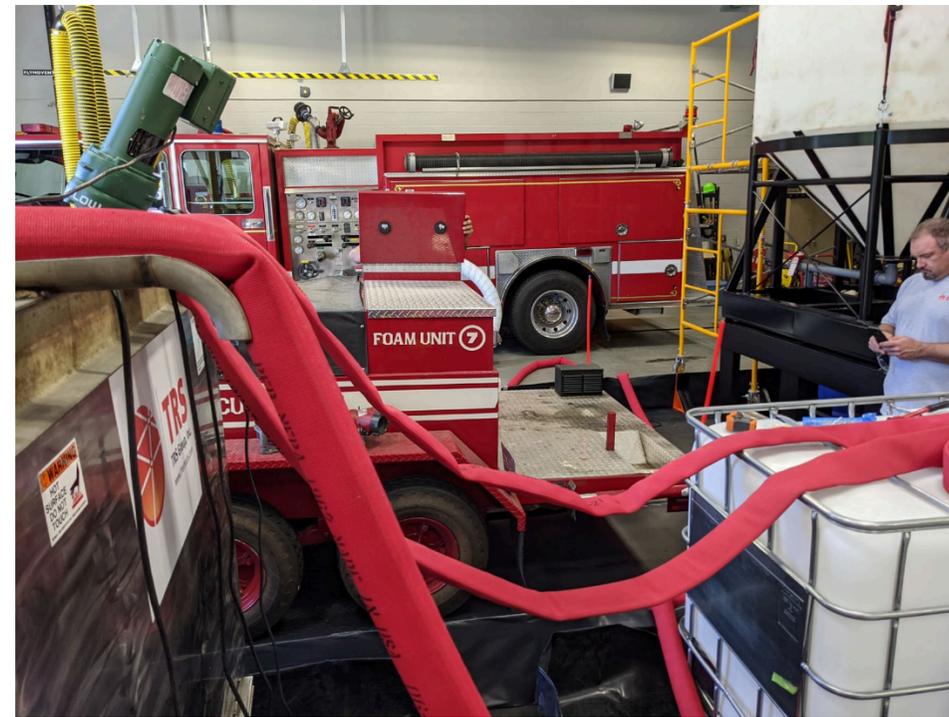
# Demonstration Project Approach

- ❑ 2 vendors using 2 different cleaning solutions at separate locations
  - **AECOM** teaming with TRS and Hiller using *PerfluorAd*<sup>®</sup> system
  - **Arcadis** using V171 / Fluoro Fighter<sup>™</sup>



# AECOM/TRS/Hiller – Foam Trailer Cleaning

Foam Trailer Cleaning using **PerfluorAd<sup>®</sup>** system



# AECOM/TRS/Hiller – Fire Truck Cleaning

Fire Truck Cleaning using *PerfluorAd*<sup>®</sup> system



# Arcadis – Trailer Cleaning



Foam Trailer Cleaning using Fluoro Fighter™

# Key Take-Aways from Decon Demonstration

- ❑ **Proprietary cleaning agents were more effective** at reducing PFAS than plain water rinses (>99% vs. ~95% removal)
- ❑ However, **residual PFAS levels remain** following use of proprietary cleaning agents that will still cross-contaminate new Fluorine-Free Foam (F3)
- ❑ Significant Logistics and Cost

# Risk Reduction

**Transitioning to Fluorine-Free Foam and cleaning fire apparatus is collectively a significant environmental improvement over continued use of AFFF.**

- However, residual PFAS remaining in fire apparatus, even after rinsing, can cross-contaminate the new foam. Deployment of the new foam may still pose a potential environmental and/or human health risk.



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# Next Steps in Take-Back Program

- ❑ **Phase 2:** Complete cost-benefit analysis for the 5 remaining regional foam trailers (clean vs. replace) and implement selected alternative
- ❑ **Phase 3:** Collect and dispose of AFFF drained from ~400 municipal fire apparatus, as funding allows

# May 2022 Guidance: Draining and Rinsing AFFF from Municipal Onboard Systems

## Recommendations for Municipal Fire Services

1. If AFFF has not been drained from onboard systems, lock out or remove discharge levers from the pump panel to prevent accidental use.
2. Use new F3 directly from shipping containers with external eductors
3. Drain AFFF remaining in onboard systems for future collection & disposal by DEEP/DESPP.

[CFPC Website: Guidance Update](#)



# May 2022 Guidance: Draining and Rinsing AFFF from Municipal Onboard Systems

***If a fire department decides to reuse the onboard foam system,***

- 1. DEEP & DESPP strongly recommend performing triple-water rinse of the foam system and containing the wastewater.**

***\*DO NOT DISCHARGE THE WASTEWATER TO THE GROUND OR SEWER\****

- 2. The state may collect the PFAS wastewater for disposal.**
- 3. Fire departments can perform additional cleaning at their own expense.**
- 4. The new F3 product will become cross-contaminated with residual PFAS. *Deployment of F3 from onboard systems that previously contained AFFF will require reporting to DEEP Emergency Spill Response.***

# Concerning Liability

Because of the uncertainty surrounding future PFAS regulation at the federal and state level, liability relief to fire departments for future foam deployments using onboard apparatus that previously held PFAS-containing firefighting foam cannot be offered or guaranteed by DEEP.

# Draining & Rinsing SOP - Brief Summary

1. Before you begin:
  - a. MSDS/SDS for AFFF
  - b. Appropriate PPE
  - c. Establish work zone and secondary containment measures.
2. Drain AFFF into a drum. Label contents and date for future disposal.
3. If rinsing, warm/hot water is better for dissolving AFFF, especially if AR-AFFF was previously used.
4. Rinse 3 times, containing wastewater in drums. Label drums.
5. Store drums in a safe location, preferably within secondary containment.

See [May 2022 “Draining and Rinsing AFFF from Municipal Onboard Systems” guidance](#) for additional details.

# Disposal of AFFF Concentrate & Rinse Water

- ❑ **Disposal of AFFF concentrate** will be arranged by the state in a similar fashion to AFFF container pickups, as state funding allows. More details will follow.
  
- ❑ **Disposal of AFFF rinse water** *may* be arranged by state, if funding remains. Otherwise, municipalities may arrange for disposal on their own.
  - DAS Contract #16PSX0197, “Removal and Disposal of Hazardous Waste Streams”
  - This contract may also be used for acquisition of 55-gallon drums, equipment/supplies.

# Available Fluorine-Free Foams (F3)

- ❑ **National Foam Universal F3 Green** identified by DESPP and DEEP.
  - Available for purchase on DAS Contract No. 21PSX0028AA.
  - This contract was established for the DESPP-CFPC, all using State agencies, political subdivisions, and not-for-profits.
  - State funding allotted for the collection of AFFF does not provide for the purchase of replacement foam.
  
- ❑ **GreenScreen Certified® Firefighting Foams**
  - List of products: [GreenScreen Certified™ Products | GreenScreen® For Safer Chemicals \(greenscreenchemicals.org\)](https://www.greenscreenchemicals.org)
  - Firefighting Foam Standard: [GreenScreen Certified™ for Firefighting Foam | GreenScreen® For Safer Chemicals \(greenscreenchemicals.org\)](https://www.greenscreenchemicals.org)

# For more information:

When you are ready for the State to collect your AFFF concentrate, please contact the Commission on Fire Prevention and Control.

Email: [foamsurvey@ct.gov](mailto:foamsurvey@ct.gov)

Or call **Jeff Morrisette** at **860-566-0690**

❖ **Pick-up and disposal of drained AFFF concentrate will continue until funds are exhausted.**

# For more information

[CT DEEP PFAS Webpage](#)  
[PFAS Task Force Webpage](#)  
[CT PFAS Action Plan](#)

## Contacts:

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