AFFF Take-Back Program and PA 21-191 Update

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AGENDA

• What are PFAS, and why are they a problem?
• PFAS and AFFF
• New Legislation – Public Act 21-191
• AFFF Take-Back Program
• Apparatus Decontamination
• Questions
What are PFAS?

PFAS = Per- and Polyfluorinated Alkyl Substances

- Family of >5,000 chemicals
- Widely used in industrial processes and consumer products since 1950s
- Common products
  - Non-stick cookware
  - Grease-resistant food packaging
  - Waterproof apparel
  - Stain-resistant fabrics & carpet
  - Aqueous Film-Forming Foam (AFFF)
PFAS Uses and Sources
Problems Caused by PFAS

- Health effects on multiple organs and phases of life
- Present in human blood worldwide
- Ubiquitous discovery in the environment
- Replacement chemicals also a problem
- Polluted drinking water supplies worldwide – now issue in US
Major PFAS Incidents in CT

Farmington River, June 2019

Rainbow Brook, October 2019
**AFFF**

- **ALL AFFF Contains PFAS**
- 1966 – AFFF patented for Class B fires (highly flammable or combustible liquids/hydrocarbons)
- 1969 – DoD military specification required PFOS
  - Spreads over the surface of flammable liquids and creates a film
  - Blankets the fuel, cools fuel surface, prevents re-ignition by suppressing flammable vapors
Where is AFFF Used?

- Military bases
- Airports
- Crash sites
- Oil terminals and refineries
- Chemical plants
- Firefighting training facilities
- Large petroleum fires
- Fire suppression systems
AFFF Manufacturing History

- 1960s - 2000s - 7 AFFF manufacturers
  - 3M, Ansul, National Foam, Angus, Chemguard, Buckeye, Fire Service Plus, Inc.
  - All contain PFAS, especially PFOS (a specific chemical).

- Early 2000s - 2016 - AFFF reformulated to stop use of PFOS and PFOA (C8) and chemicals that breakdown to form them.
  - C8 PFAS replaced with shorter-chain and fluorotelomer PFAS (C6).
  - Replacement PFAS are still problematic to human health and the environment.

- Now - Effective Fluorine-Free Foams (F3) are available.
AFFF and CT Fire Departments

- State Regional Foam Trailer Program
  - Started in 2002
- 8 Trailers & Host Communities:
  - Hartford, New Haven, Willington, Waterbury, Winsted, Fairfield, Norwich, Danbury
- National Foam - Universal Gold 1%/3% AR-AFFF
  - Contains C6 Fluorotelomers = PFAS
AFFF and CT Fire Departments

- **AFFF Advisory Bulletin – June 2019**
  - Discontinue use of all AFFF manufactured before 2003
  - Use modern Class C6 AFFF only when tactically necessary
  - Discontinue use of AFFF for training
  - Notify DEEP Emergency Dispatch when AFFF is deployed 860-424-3338
AN ACT CONCERNING THE USE OF PERFLUOROALKYL OR POLYFLUOROALKYL SUBSTANCES IN CLASS B FIREFIGHTING FOAM.

- Signed July 13, 2021
- 2 Sections:
  - Section 1: AFFF provisions
  - Section 2: Bans in-state sale of PFAS-containing food packaging beginning Jan. 2024 - amends CGS Section 22a-255h (not being discussed here)
Public Act 21-191 – Breakdown

- Section 1(b)(1) – Bans testing and training with Class B foam containing PFAS (AFFF) upon bill passage (7/13/2021).

- Section 1(b)(2) – Bans use of AFFF for firefighting or vapor suppression after 10/1/2021, with exceptions, provided DEEP identifies an alternative by 7/1/2021.
  - Alternative is National Foam Universal® F³ Green.
  - Other alternatives may be identified by DEEP in consultation with DESPP/CFPC.
Public Act 21-191 - Breakdown

- Section 1(b)(3) - Airports
  - Must immediately use mitigation measures to prevent releases of AFFF to the environment, using containment, treatment, and disposal.
  - Must phase out AFFF use/deployment systems by 10/1/2023.

- Section 1(b)(4) - AFFF Use Required by Federal Law allowed until either:
  - Federal law changes and prohibits use of AFFF, or
  - 1 year after change in Federal law no longer requiring AFFF use.
Section 1(b)(5) - Extensions to comply with 10/1/2021 AFFF ban will be allowed for:
  o Chemical plants
  o Oil refineries
  o Terminal, storage, and distribution facilities for flammable liquids

• Must first apply to DEEP for 2-year extension.
  o Will need to provide:
    ✓ Justification for request
    ✓ Containment, treatment, and disposal measures for AFFF
  o Process being developed.
Public Act 21-191 - Breakdown

- Section 1(c) – DEEP shall develop or identify a Take-Back Program for municipal AFFF by 10/1/2021
  - Currently underway

- Section 1(d) – Provisions may be enforced by DEEP within available appropriations.
AFFF TAKE-BACK PROGRAM

- Collaborative effort between DEEP & CFPC, supported by $2M bond
  - **PFAS-free foam selected** by CFPC with DEEP input: Feb. 5, 2021
  - **Take-Back Program initiated** for state/municipal AFFF concentrate (est. 40,000 gal)

- Phase 1 - Container collection and proper disposal: **Launched in May 2021**
- Phase 2 - Decontamination study and clean trailers: **Summer 2021 (Underway)**
- Phase 3 - Remove AFFF from and clean municipal apparatus: Begin Fall 2021
AFFF Container Collection

- For more information on AFFF container collection, contact:
  - FoamSurvey@ct.gov
  - 860-566-0690 – Jeff Morrissette

- Goal is to complete collection of containers by August 31, 2021.

- Draining and cleaning of apparatus will happen next.
Common Questions

• Why do we need to clean apparatus before using new foam?

• When/where will the cleaning happen?

• Where can my town/department purchase a safer alternative foam?
  • Contract #21PSX0028AA has been issued by the Department of Administrative Services for National Foam Universal F3 Green firefighting foam for the Department of Emergency Services and Public Protection, Commission on Fire Prevention and Control, all using State agencies, political subdivisions, and not-for-profits.

• Is new equipment needed to deploy Green foam?
QUESTIONS?

CT CFPC Webpage
DEEP PFAS Webpage
PFAS Task Force Webpage
CT PFAS Action Plan

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