



FIRE DEPARTMENT SERVICE ANNOUNCEMENT

Bulletin #22, Delivery Containers for Aqueous Film Forming Foam (AFFF), May 7, 2021

The fire service uses multiple methods for firefighting foam distribution. These start with a fire extinguisher containing 9.3 oz of firefighting foam. In December 2020, the National Association of Fire Equipment Distributors (NAFED) issued an alert because of the growing concern about PFAS.¹ PFAS are now being considered an environmental and hazardous material.²

Any container or fire equipment that comes into contact with Aqueous Film Forming Foam (AFFF) will need to be environmentally cleaned or entirely replaced. The conflict is that cleaning a forever chemical that is also a surfactant is an aspect of tremendous challenge for anyone. Contrary to past fire service solutions of diluting a chemical to make it less dangerous, that is not an option with PFAS chemicals. Proper disposal is critical.

The Madison Fire Department used an environmental service recommended by the Wisconsin Department of Natural Resources prior to changing over to F3 products. The cost was \$40,000 for 38 apparatus.³ To replace the PFAS containing foam with an F3 product cost an additional \$40,000.

“Public outcry from this event put pressure on the fire department to change out their perfluorinated firefighting foams to fluorine-free products. The fire department’s foam committee was charged with finding the new replacement foam.”⁴

- There are an estimated 360,000+ fire apparatus in the United States.⁵
- The US military has 3,000 ARFFs and there are 6,000 ARFFs in US airports.⁶

1 NAFED, AFFF Firefighting Foam Update, 12/18/2020, <https://www.nafed.org/latestnews/aff-fire-fighting-foam-update>

2 EPA Delivers Results on PFAS Action Plan, 01/19/2021, <https://www.epa.gov/newsreleases/epa-delivers-results-pfas-action-plan>

3 Firefighting Foam Action in Wisconsin, Aug 11, 2020, <https://mejo.us/firefighting-foam-action-in-wisconsin/>




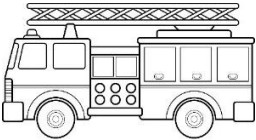

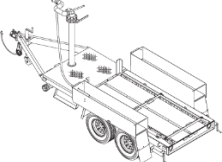
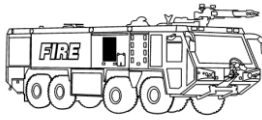
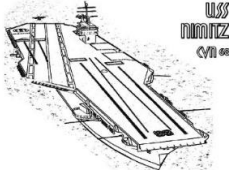
4 ibid.

5 NFPA, US Fire Department Profile, 2018, Ben Evarts + Gary P. Stein, Feb 2020, <https://www.nfpa.org/-/media/Files/News-and-Research/Fire-statistics-and-reports/Emergency-responders/osfdprofile.pdf>

6 Department of Defense, PFAS Task Force Progress Report, March 13, 2020, https://media.defense.gov/2020/Mar/13/2002264440/1/-1/1/PFAS_Task_Force_Progress_Report_March_2020.pdf

Foam Exposure Committee
Contact: Vicki Quint, Quint LLC
codepfas@gmail.com
C. 262-794-7226

Delivery of Aqueous Film-Forming Foam (AFFF) in Containers by Volume

<i>Item</i>	<i>Delivery System</i>	<i>Amount of AFFF</i>
	Fire extinguisher	9.3 oz
	5 Gallon Pail	5 Gallons
	55 Gallon Drum (11 5 gallon pails)	55 Gallons
	Fire Apparatus	30 to 50 Gallons
	Tote (53 5 Gallon pails)	265 Gallons
	Foam trailers	250 to 3,000 Gallons
	ARFFs	250 to 630 Gallons
	Aircraft Carrier	> 20,000 Gallons

“70 ppt is equivalent to about three-and-a-half drops of water in an Olympic-sized swimming pool” -- according to David Andrews of EWG, the fact PFAS are even measured in parts-per-trillion is a signal of the risk potential.” [[Why a ‘safe’ PFAS level in drinking water is so ambiguous, Mlive, Grand Rapids, MI, Jan 19, 2019, https://www.mlive.com/news/grand-rapids/2017/11/what-is-a-safe-pfas-level.html](https://www.mlive.com/news/grand-rapids/2017/11/what-is-a-safe-pfas-level.html)]