
FIRE DEPARTMENT SERVICE ANNOUNCEMENT

Bulletin #15, Fire Testing of Firefighting Foams, March 19, 2021

Fire testing of firefighting foam products for real world application has usually been done on a small scale, i.e., using a pan fire to simulate an aircraft crash or working in a laboratory situation. The US Naval Research Laboratory has been conducting testing for new firefighting foams that do not contain PFAS.¹ This is an issue because crashed, mangled, damaged aircraft are usually considered a 3D situation.

The US Aqueous Film-Forming Foam (AFFF) MilSpec, MIL-F-24385, has only been updated minimally in 58+ years of use. The product has not kept pace with technological changes in aircraft, fuselage or fuels. But, the Department of Defense (DoD) is wanting to have a “drop-in” replacement “that would work with existing firetrucks, pipes and nozzles.”²

Fire testing is critical in order for the fire service to evaluate firefighting foam products. There are currently fire tested fluorine-free firefighting foams that have been in use for decades that perform to standardized fire testing standards.

Petrochemical companies, through the LastFire Project, “provide an independent and comprehensive assessment of fire related risk in large, open top flat roof storage tanks resulting in a methodology by which site specific Fire Hazard Management policies can be developed and implemented.”³ The group of sixteen companies that form LastFire test periodically at full-scale levels for a more real world assessment.

Safer effective alternatives to PFAS foams are in use worldwide. The US DoD should use them to protect the health of communities and firefighters. The fire chief of Heathrow reported: “Since purchasing our fluorine-free foam, we have used it on two separate aircraft fires (an A321 and a 787) and it worked perfectly.”⁴

1 Navy researchers hopeful new firefighting foams will reduce health risks, Luis Martinez, <https://abcnews.go.com/US/navy-researchers-working-pfas-free-firefighting-foams-poss/story?id=67052773>

2 US Dept of Defense, 5 Things to Know about DoD’s Research on ‘Fluorine-Free’ Firefighting Foam, Miranda Paley, Sept 6, 2019, <https://www.defense.gov/Explore/News/Article/Article/1953510/5-things-to-know-about-dods-research-on-fluorine-free-firefighting-foam/>

3 <http://www.lastfire.co.uk/default.aspx?ReturnUrl=%2f>

4 Your Military, Cancer-causing foam could be banned in military training next year, off military bases entirely by 2029, June 4, 2019, Leon Shane III, <https://www.militarytimes.com/news/pentagon-congress/2019/06/04/cancer-causing-foam-could-be-banned-in-military-training-next-year-off-military-bases-entirely-by-2029/>



Photo by Roy Napper