

FAA Amendment: Fire Safety & Healthy Drinking Water



Millions of Americans' drinking water contains highly fluorinated chemicals (PFAS or PFC) at levels which may be harming their health.¹ A major source of this contamination is firefighting foam used to fight fuel fires at airports and military bases. The cost to provide safe drinking water and cleanup to impacted areas is estimated at billions of dollars.²

One major reason for this contamination is that the U.S. military specification for Class B firefighting foams (the MilSpec) requires the use of fluorinated chemicals.³ Federal Aviation Administration (FAA) regulations also require civilian airports to follow the MilSpec.⁴ During fires and practice drills, the fluorinated foam can escape and end up contaminating drinking water sources.⁵

An amendment to the FAA Reauthorization Act of 2018 would give civilian airports the freedom to choose firefighting foams without or with PFAS.⁶ Instead of being tied to the MilSpec, civilian airports could follow a different and similarly effective standard called NFPA 403 (National Fire Protection Association 403) which can be met with fluorine-free foams. This provision passed the House of Representatives on April 27, 2018, by a vote of 393 to 13. Now the Senate may consider it.

The FAA amendment maintains fire safety and provides an opportunity to protect drinking water of communities near civilian airports from contamination with fluorinated chemicals.

Chemical industry claim: Fluorine-free foams are not adequate.

Facts about fluorine-free foams:

- Norwegian airports have used them without incident since 2012.⁷
- South Australia requires that airports use only fluorine-free foams.⁸
- Dozens of other airports worldwide safely use them.⁸
- Washington State has banned the use of PFAS-containing foams except when required by federal law.⁹
- Fluorine-free foams reach the highest level of performance in ICAO (International Civil Aviation Organization) fire extinguishment tests.¹⁰
- Fluorine-free foams produced by Solberg (in Wisconsin) meet the UL (Underwriters Laboratory) 162 performance standard.¹⁰

Chemical industry claim:

Modern fluorinated firefighting foams are “environmentally preferable.”

PFAS used in modern fluorinated foams are:

- extremely persistent “forever” chemicals.¹¹
- bioaccumulative in food plants such as lettuce and strawberries.¹²
- increasingly found to be toxic.¹³
- more mobile than phased out PFAS.¹⁴
- more difficult to filter out of water.¹⁵

[A draft toxicological profile](#) released June 20, 2018, by the federal Agency for Toxic Substances and Disease Registry (ATSDR), indicates that some PFAS may be more harmful than previously understood. The report finds that PFOA and PFOS are 7 to 10 times more toxic than prior EPA estimates. This implies that many more communities are exposed to PFAS at levels that may harm their health.

REFERENCES

1. Hu, X.C., et al. *Environ. Sci. & Technol. Lett.* 3.10 (2016): 344.
2. <https://theintercept.com/2018/05/25/airport-firefighting-foam/>
3. Military Specifications MIL-F-24385F: US Naval Lab: 2017.
4. FAA Advisory Circular 150/5210-6D; FAA Office of Airport Safety and Standards: 2004.
5. http://www.newsminer.com/news/local_news/contaminated-groundwater-found-near-fairbanks-airport/article_gde1f2a8-c4fo-11e7-a328-97e81172129c.html
https://www.mlive.com/news/grand-rapids/index.ssf/2018/06/ford_airport_confirms_pfas.html
6. 2018 Federal Aviation Administration Reauthorization Act, Section 203
7. Avinor, “Emissions to Water and Soil.” <https://avinor.no/konsern/miljo-og-samfunn/utslipp-til-vann-og-grunn/>
8. <https://theintercept.com/2018/02/10/firefighting-foam-afff-pfos-pfoa-epa/>
9. Washington State SB6413, 2018 Regular Session, as enacted
10. <https://www.solbergfoam.com/Technical-Documentation/Foam-Concentrate-Data-Sheets/ReHealing-Foam/UL-Concentrates/RE-HEALING-RF6-6-F-2011007-4.aspx>
11. Blum et al., The Madrid Statement. <https://ehp.niehs.nih.gov/1509934/>
12. Blaine, A.C., et al. *Environ. Sci. & Technol.* 48.24 (2014):14361. Blaine, A.C., et al. *Environ. Sci. & Technol.* 47.24 (2013):14062.
13. Toxic-Free Future, “The Toxicity of New Generation PFASs.” Jan. 2018. <https://48h57c2l31ua3c3fmq1ne58b-wpengine.netdna-ssl.com/wp-content/uploads/2018/02/Toxicity-of-New-Generation-PFASs-1-27-18.pdf>
14. Guelfo, J.L. and Higgins, C.P. *Environ. Sci. Technol.* 47.9 (2013):4164.
15. Xiao, X. et al., *Environ. Sci. Technol.* 51.11 (2017):6342.



In 2012, after extensive testing, Heathrow in the UK switched away from the use of all PFAS. In 2015, a British Airways airbus caught fire; firefighters put out the flames with fluorine-free foam.

“zero cleanup costs and zero environmental concerns.”

— Graeme Day, Fire Service Compliance Manager, Heathrow⁸

Please contact Tom@GreenSciencePolicy.org or (510) 898-1739 for more information.