



Alaska
International Airport
System
AeroNexus®

Introduction to PFAS at the Fairbanks International Airport

Angie Spear

December 2017

To Keep Alaska Flying and Thriving



Timeline

- Existing burn pit construction 1993
- In use for training 1993 - Current
- FAI water sampling Summer 2017
- FAI received water airport sampling test results Oct. 27, 2017
- FAI contracted Shannon & Wilson, Inc. Nov. 3, 2017
- Off airport well sampling began Nov. 10, 2017
- FAI contracted Spring Alaska Nov. 10, 2017
- FAI contracted Vision Construction Nov. 20, 2017
- Issue request for proposal (RFP) bid for permanent water hook up contractor Winter '17-'18
- Begin water hook up project (CUC) Spring/Summer 2018



Current FAI Burn Pit



Why have PFAS been used at airports?

PFAS have been used at FAI in AFFF for use in emergency fire response and required FAA training exercises.

The Federal Aviation Administration (FAA) mandates⁴:

- “testing of firefighting foam equipment on aircraft rescue and firefighting vehicles is done in accordance to NFPA 412: Standard for Evaluating Aircraft Rescue and Fire-Fighting Foam Equipment”

Simplified summary of NFPA 412⁵:

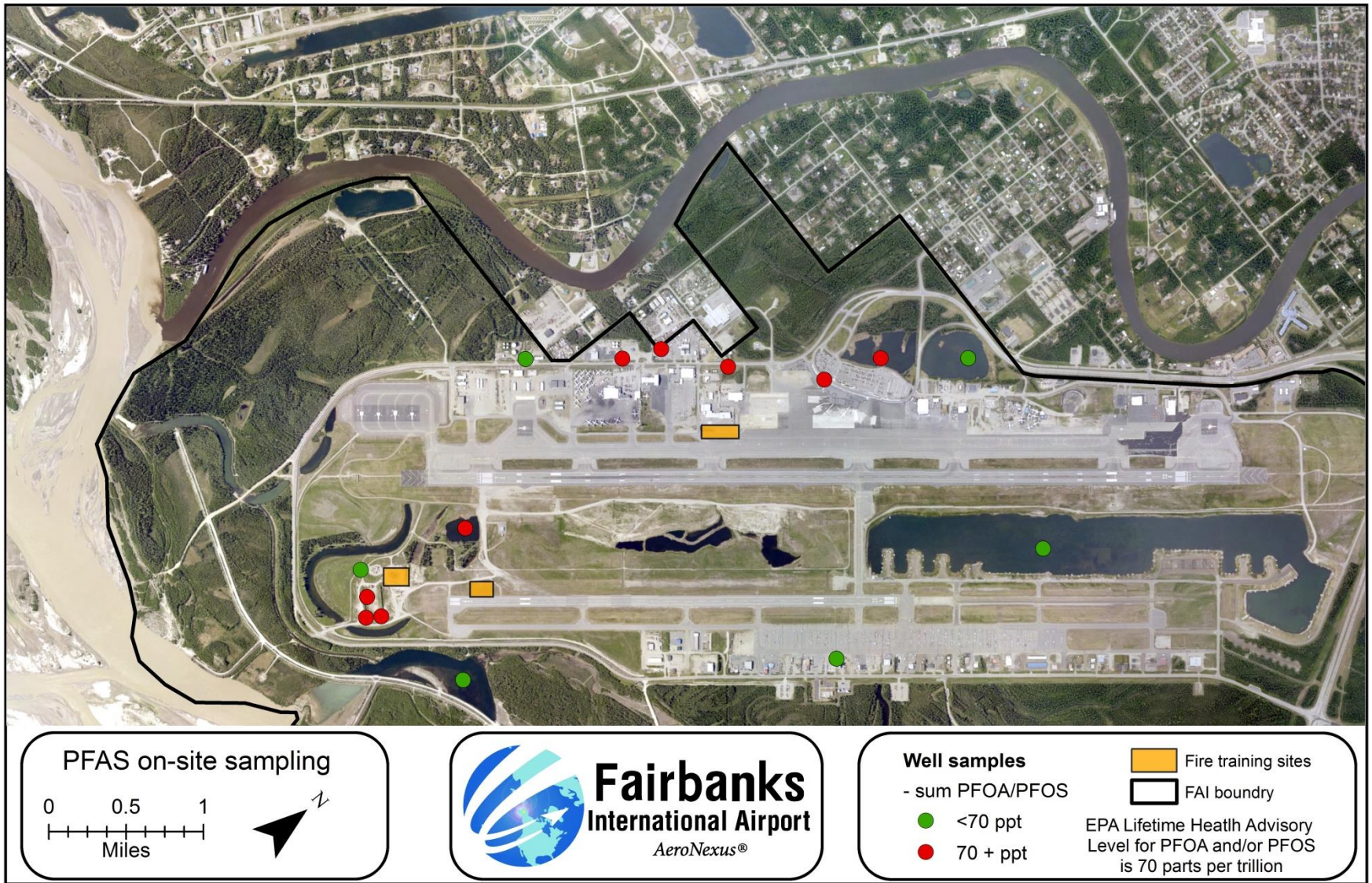
- Foams shall be flowed annually to insure expansion ratio and drainage criteria are met.

The use of AFFF at FAI prompted testing of monitoring and testing wells for PFAS presence (sampled summer 2017)

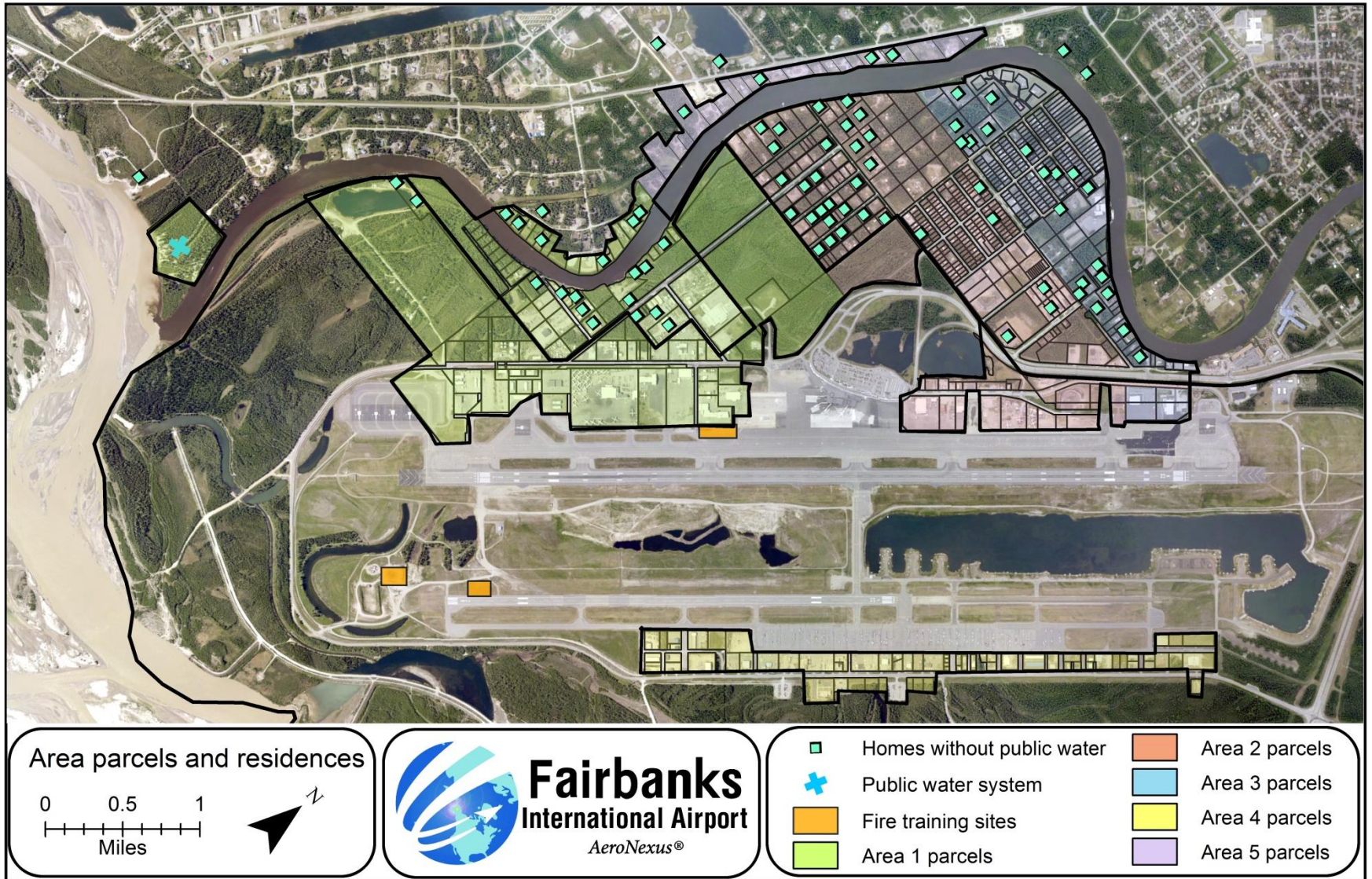
Sources: ⁴Use and Potential Impacts of AFFF Containing PFASs at Airports,

⁵National Fire Protection Association Standard 412

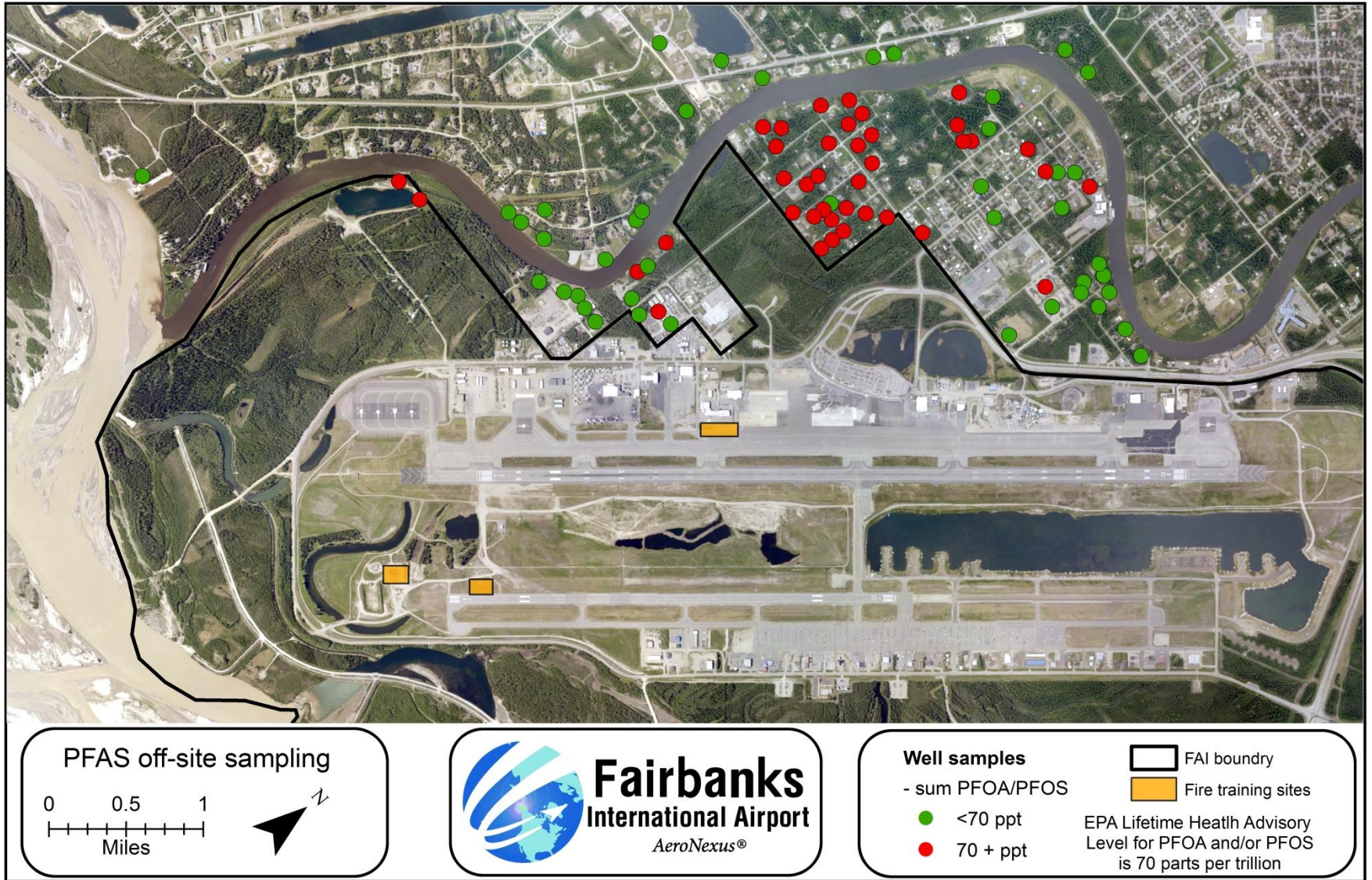
On-site PFAS Sampling Results



Sampling Area: Parcels and Residences



Off-site Sampling Results to Date



Response Actions

Short-term

- Water delivery by Vision Construction for ALL residents in sampling areas
 - Flats of water
 - Hot and cold water dispensers
 - Five gallon jugs
 - Distributed water (sourced from Alaska Best water) has been tested and meets all federal requirements including PFAS.

Long-term

- Connect impacted residents and businesses to College Utilities
 - Water main distribution system research
 - Home and business visits
 - Engineering plan design and contract award

Note: If residents run out of water prior to their next scheduled delivery, water is available for pick-up at the Airport Response Center 24/7/365 call 474-2530 to coordinate.



Moving Forward

PFAS sampling results will determine the scope of action moving forward

- Phase 1 sampling is in progress
 - 97 wells have been sampled to date
 - 42 out of 88 sample results are at or above the 70ppt LHA
- Phase 2 sampling will step out to sample more drinking water wells until we know the extent of the contamination and have a perimeter of clean wells.

Necessary future action will involve on-site and off-site projects, including:

Off-site

- Determine extent of PFAS plume
- Providing temporary drinking water for all residents whose wells have been sampled, and request drinking water.
- Expansion of College Utilities system to residents whose well water is above the EPA Lifetime Health Advisory Levels for PFOS/PFOA.

On-site

- Site characterization (e.g., extent of contamination, identifying sources and dates)
- Remediation (removal or treatment of affected soil and water)
- Closure and decommissioning of current fire pit

Risk Management



The Division of Risk Management administers the self-insurance program for each State agency, handling all third party claims.

For more information please visit:
<http://doa.alaska.gov/drm/>

Risk Management

All residents who believe they are impacted by the contamination may contact Risk Management to receive claim filing instructions.

For claim filing instructions contact:
Alaska Department of Administration
Division of Risk Management
Jack Albrecht, Claims Administrator
PO Box 110218
Juneau, AK 99811-0218
Phone: 907-465-2183
Fax: 907-465-3690
Email: jack.albrecht@Alaska.gov

Additional contacts:

Scott Jordan - Director
907-465-5723

Sheri Gray – Risk Manager
907-465-5724

Community Outreach

FAI is committed to being open and transparent

Press Releases:

- Sign up for GovDelivery
<https://public.govdelivery.com/accounts/AKDOT/subscriber/new?>

Website:

- dot.alaska.gov/faigroundwater

Email:

- FAIgroundwater@alaska.gov

Follow us:

- **Facebook**
<https://www.facebook.com/FairbanksInternationalAirport/>
- **Twitter** - @Fly_Fairbanks

Contact:

Angie Spear
Division Operations Manager - FAI
O: 907-474-2529
C: 907-978-8697

The screenshot shows the website for the Alaska Department of Transportation & Public Facilities, specifically the Fairbanks International Airport. The page is titled "ARFF Training Areas Contamination" and features a yellow banner with the text: "After-hours drinking water is available 24/7/365 at the Airport Response Center located at 5195 Brumbaugh Blvd, 907-474-2530." Below the banner, there is a list of links: "Perfluoroalkyl & Polyfluoroalkyl Substances Frequently Asked Questions", "Fact Sheet - PFOA & PFOS Drinking Water Health Advisories", "Letter to Potentially Impacted Residents", and "Private Well Inventory Survey Form". A "Background" section follows, stating that FAI was alerted to concentrations of Per- and Polyfluoroalkyl Substances (PFAS) in the groundwater at the Aircraft Rescue and Firefighting (ARFF) Training Areas. A map of the airport area is shown, with a legend indicating "ARFF Training Areas" and "PFAS Well Search and Samples".

The image shows a Facebook profile card for Fairbanks International Airport. It features a profile picture of the airport terminal and a cover photo of the airport grounds. The name "Fairbanks International Airport" is displayed, along with the handle "@FairbanksInternationalAirport". A blue "Contact Us" button is visible at the bottom of the card.

The image shows a Twitter profile card for Fairbanks Airport. It features a profile picture of the airport terminal and a cover photo of the airport grounds. The name "Fairbanks Airport" is displayed, along with the handle "@Fly_Fairbanks". The card shows "242 Following" and "731 Followers". A blue "Edit profile" button is visible at the top right. The navigation bar at the bottom includes "Tweets", "Tweets & replies", "Media", and "Likes".

Questions?

Sources

¹ National Institute of Environmental Health Sciences:

https://www.niehs.nih.gov/health/materials/perflourinated_chemicals_508.pdf

² New Jersey Department of Health:

http://www.state.nj.us/health/ceohs/documents/eohap/generic_pfc_factsheet.pdf

³ Environmental Protection Agency:

<https://www.epa.gov/fedfac/emerging-contaminants-and-federal-facility-contaminants-concern>

⁴ Use and Potential Impacts of AFFF Containing PFASs at Airports:

Thalheimer, Andrew H., et al. Use and Potential Impacts of AFFF Containing PFASs at Airports. No. Project 02-60. 2017.

⁵ National Fire Protection Association Standard 412:

<http://hamyarenergy.com/static/fckimages/files/NFPA/Hamyar%20Energy%20NFPA%20412%20-%202003.pdf>

Appendix A

NFPA 412 Details⁵:

5.1 Expansion Ratio and Drainage Time Requirements.

Foams shall be tested as specified in 6.3.2 and 6.3.3 of this standard and shall meet at least the performance requirements specified in Table 5.1.

Table 5.1 Foam Quality Requirements

Foam Agents	Minimum Expansion Ratio	Minimum Solution 25% Drainage Time in Minutes	
		Test Method A	Test Method B
AFFF or FFFP air-aspirated	5:1	3	2.25
AFFF or FFFP non-air-aspirated	3:1	1	0.75
Protein	8:1	N/A	10
Fluoroprotein	6:1	N/A	10

[6.3.2 Test Method A and 6.3.3 Test Method B](#)