FAA Home ► Airports ► Airport Safety ► Aircraft Rescue & Fire Fighting (ARFF)

# FAA Survey: Particles in Aqueous Film Forming Foam (AFFF) in ARFF Vehicles



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Thank you for participating in our survey. Your feedback is important.

We have learned that at least four airport Aircraft Rescue and Firefighting (ARFF) departments have found crystallized particulates in the AFFF tank of their ARFF vehicles. These crystals have not yet been found to affect the firefighting capabilities of the AFFF, but the crystallization might restrict the foam proportioning system and after foam production or nozzle discharge.

As discussed in FAA CertAlert 16-XX, Particles in Aqueous Film Forming Foam (AFFF) on Aircraft Rescue Fire Fighting Vehicles, we recommend that all ARFF departments at FAA certificated airports inspect the foam tanks on all ARFF vehicles (and in any bulk storage tanks) and report the results (positive or negative) to us via this survey. If you find crystals in foam tanks or plumbing, please also follow the instructions in the CertAlert for collecting foam samples and shipping the samples to the FAA Technical Center for analysis.

The data provided as well as analysis of any crystals found in foam tanks will be shared with foam manufacturers to assist them in developing any necessary remedies.

\*Indicates required responses.

Airport Information

#### **Airport Demographics**

3-Letter Airport Identifier*					
Name of Airport					
State*	select state				
ARFF Index	OA OB OC OD OE				
Contact Information for Person Co	manlating This Current				
Name*	impletting This Survey				
Rank or Title					
Department					
Email*					
Telephone Number*					
General Questions					
How many ARFF vehicles with foa	m tanks are in your Department's fleet:				
	m garaged in an area where they are protected from freezing?				
○ Yes ○ No					
O Yes, but they may have frozen at	some time				
How many bulk foam storage tank	s does your Department have?				
3. How many bulk loam storage tank	suces your department have:				
4. Are all bulk foam storage tanks pro	stected from freezing?				
○ Yes ○ No					
O Yes, but they may have frozen at	some time				
How does your airport purchase foam concentrate? (select all that apply)					
5 gallon pails	am concentrate. (coloct an that apply)				
55 gallon drums					
☐ Totes ☐ Bulk tank delivery					
6. How does your airport store foam   ☐ 5 gallon pails	concentrate? (select all that apply)				
55 gallon drums					
□ Totes					
☐ Bulk tank delivery					
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### **AFFF Foam Concentrate**

The following information will help us determine if any foam found to have crystals is specific to a certain manufacturer, batch, lot, percentage, or vintage. Please provide as much information as you can.

**Note:** Airport purchasing department may have records from foam deliveries showing batch numbers, dates of manufacturing, and lot numbers.

Foam Manufacturer				
Foam Brand				
Foam Percentage	○ 3% ○ 6%			
Batch Number(s)				
Lot Number(s)				
Year Manufactured				
Add Another Foam Conc	centrates			ver, we ask that you provide
	s, including those meeting oncentrates together in A stches, etc.)?			n storage tanks (different
Next Page  Mixed Foam Cor	ncentrates			
9. Are any of the concen could be purchased before Yes  No				n those in use) UL 162 (a fo
10. What foam concentra	ates were mixed together Foam Percentage:			
Foam 2: Type 1	Foam Percentage: O	3% 06%		
11. Were any of the tank  ○ Yes  ○ No	s with mixed foam conce	ntrates found to ha	ave crystals?	
12. If you answered "yes tank.	" to Question 11, please	identify the impact	ted vehicles by call	sign or identify the bulk stor

# Vehicles Found to have Foam Crystals

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Add Another Vehicle

○ Yes ○ No

13. Did you find foam crystals in any ARFF vehicle foam tanks or associated plumbing?

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Vehicles Found to have Foam Crystals					
14. For each vehicle were foam crystals were found in the tank or associated plumbing, please provide the following information. (If more than 3 vehicles were impacted, please use the comment section at the end to provide this information for the additional vehicles.)					
Vehicle Year:					
Vehicle Manufacturer:					
Vehicle Model:					
Vehicle Capacity:					
Vehicle Call Sign:					
Type of Proportioning System:					
Foam Percentage:	○ 3% ○ 6%				
Foam Manufacturer, Brand, Batch and Lot Numbers (provide as much information as is available)					

# **Bulk Storage Tanks Found to have Foam Crystals**

○ Yes ○ No

15. Did you find foam crystals in any bulk foam storage tanks or associated plumbing?

○ NA	
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16. For each bulk foam storage tank in which foam crystals	were found, please provide the following information.
Tank Capacity:	
Type of Construction:	
Type of Proportioning System:	
Foam Percentage:	○ 3% ○ 6%
Foam Manufacturer, Brand, Batch and Lot Numbers	
Identifier for storage tank:	
Is the bulk storage tank in a climate-controlled area protected from freezing?	○ Yes ○ No
Was foam from this tank used to top off or re-service ARFF vehicles?	○ Yes ○ No
Were the ARFF vehicles topped off or re-serviced from this tank found to have foam crystals?	○ Yes ○ No
If yes, identify by call sign vehicles that were topped off or re-serviced.	
Add Another Tank Next Page	

# Comments

Please prov	ide any com	ments or ob	servations	that you th	ink may be	helpful

## Submit Survey

## You Have Completed the Survey!

Thank you for completing our survey. We are grateful for your assistance.

If you did not find crystals during your inspections, please let us know if you find any in the future.

CONTACT LINK

If you found crystals in your vehicle foam tanks/plumbing or in bulk storage tanks, please follow the guidance in CertAlert 16-XX and send a small sample of crystal from each tank found to have crystals. Each sample should be individually wrapped and labelled.

Place each sample in a jar, seal, and label as follows: Airport Name Person Sending Sample Vehicle Sample Was Taken From Foam Manufacture, %, Batch and Lot Number

Wrap each jar in bubble wrap and ship the jars to: Keith Bagot FAA William J. Hughes Technical Center Building 296, ANG-E261 Atlantic City International Airport Atlantic City, NJ 08405