



**MIKE CAUSEY**  
INSURANCE COMMISSIONER

September 12, 2023

The Honorable Norman W. Sanderson  
Senator  
300 N. Salisbury Street, Room. 309  
Raleigh, North Carolina 27603

The Honorable Jimmy Dixon  
Representative  
16 West Jones Street, Room. 2226  
Raleigh, North Carolina 27601-1096

The Honorable Edward C. Goodwin  
Representative  
16 West Jones Street, Room. 2217  
Raleigh, North Carolina 27601-1096

Re: 2023 Report on the Management of Aqueous Film-Forming Foams

Dear Senator and Representatives,

Enclosed is the Department of Insurance's report to the Environmental Review Committee on the management of aqueous film-forming foams (AFFF) pursuant to G.S. § 58-82B-15. The report provides the statutorily required information for on the utilization and inventory of AFFF by fire departments across the State.

The General Assembly has my gratitude for its continued support of our State's firefighters. I thank you for allowing the Office of State Fire Marshal (OSFM) to have a role in this important program.

With kindest regards,

Mike Causey  
Insurance Commissioner  
State Fire Marshal

# ANNUAL REPORT 2023

Brian Taylor, Chief State Fire Marshal  
[brian.taylor@ncdoi.gov](mailto:brian.taylor@ncdoi.gov)



NC DEPARTMENT OF INSURANCE  
**OFFICE OF STATE  
FIRE MARSHAL**

**MIKE CAUSEY, STATE FIRE MARSHAL**

# Overview

Pursuant to North Carolina General Statute (G.S.) 58-82B, the North Carolina Office of the State Fire Marshal (OSFM) submits this annual report to the North Carolina Environmental Review Commission for the period of **January 1, 2022, to September 1, 2023.**

The following report provides an update on the progress of tracking the use and inventory of Aqueous Film-Forming Foam (AFFF) by State and local fire departments using an online portal.

To date, the OSFM AFFF Division has inventoried all **1,223 fire departments** managed by State and local governments in North Carolina and **120,904 gallons** contained at those sites. The Division has also captured reports of **160 incidents from 80 agencies** via an upgraded version of the NC Elite Incident Reporting System.



# Creation of the AFFF Division

Within the past year, OSFM has created the Aqueous Film-Forming Foams Division, comprising three regional Foam Research Analysts who report to the Chief of Inspections/Ratings Grants & AFFF.



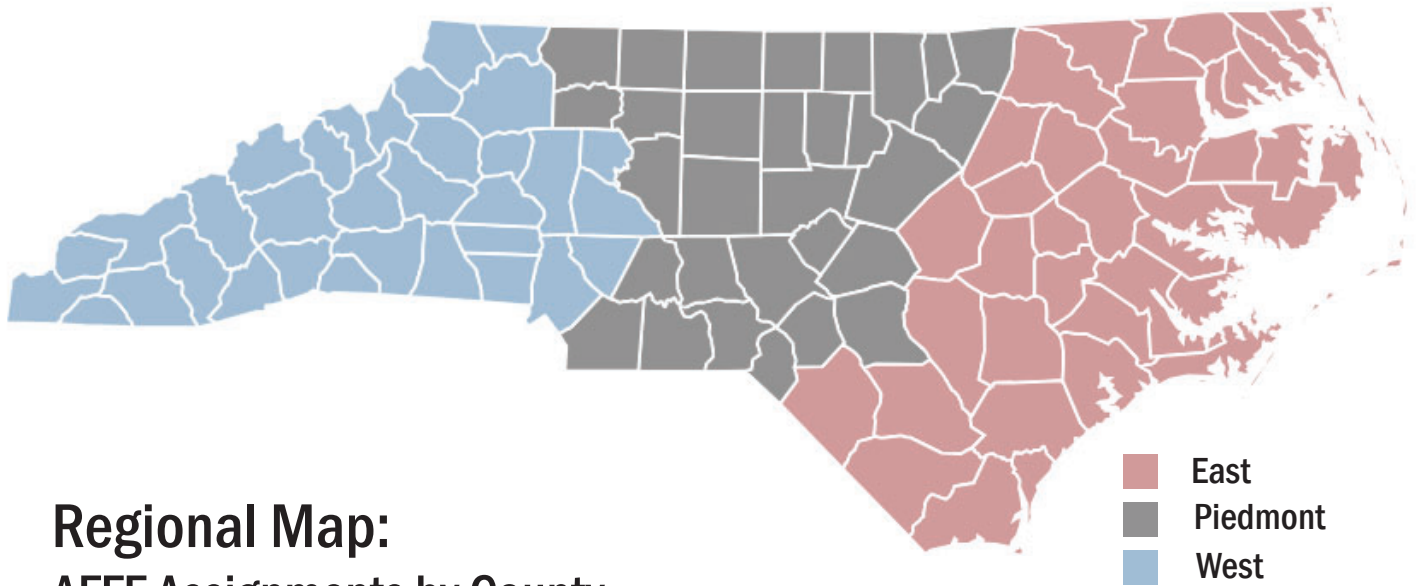
<https://www.ncosfm.gov/fire-rescue/ratings-and-inspections/afff-foam>

<b>Davie Summey</b>	<b>Interim Division Chief of Inspection/Rating, Grants &amp; AFFF</b>	<b><a href="mailto:davie.summey@ncdoi.gov">davie.summey@ncdoi.gov</a></b>
<b>Chris Davis</b>	<b>Foam Research Analyst</b>	<b><a href="mailto:chris.davis@ncdoi.gov">chris.davis@ncdoi.gov</a></b>
<b>Russ King</b>	<b>Foam Research Analyst</b>	<b><a href="mailto:russell.king@ncdoi.gov">russell.king@ncdoi.gov</a></b>
<b>Steve Allred</b>	<b>Foam Research Analyst</b>	<b><a href="mailto:steven.allred@ncdoi.gov">steven.allred@ncdoi.gov</a></b>

The mission of the AFFF Division is “to assist all NC fire departments with accurate reporting of quantities stored and/or used, locations of, and potential exposures from AFFF. Provide education on the health and environmental effects of AFFF”.



# Usage Reporting



## Regional Map: AFFF Assignments by County

The AFFF Division uses an “Elite” program developed by ImageTrend to maintain a statewide repository for the National Fire Incident Reporting System (NFIRS).

Within the past year, OSFM has worked with ImageTrend to add an additional section to the basic incident reporting module in the Elite program to account for AFFF used during a fire incident. The data design for the additional AFFF data module was developed with the assistance of the North Carolina Collaboratory, headquartered at UNC-Chapel Hill.



# Usage Reporting (continued)

With this additional section added to the Elite program, users now have the option of selecting “yes” to report the use of foam during a fire incident:

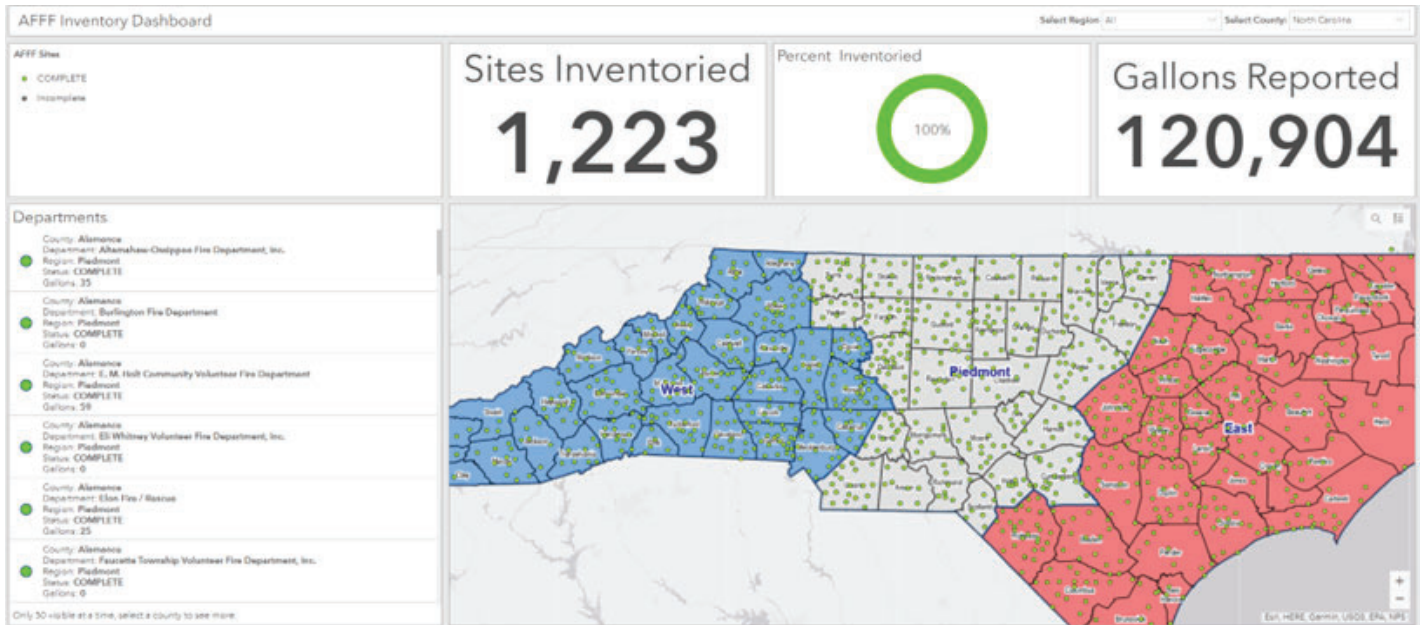
The screenshot shows a form with the following fields and controls:

- Incident District:** A dropdown menu.
- Alarms:** A field containing the number '1' with a close button (x) and a dropdown arrow.
- Primary Action Taken:** A field with a red exclamation mark icon, a dropdown arrow, and a list icon.
- Additional Actions Taken:** A search field with the placeholder text 'Find a Value...' and list icons.
- Was AFFF foam used at this incident?:** Two buttons labeled 'Yes' and 'No'.

This allows the user to enter comprehensive details about the foam and incident:

- **AFFF Trade Name**
- **Container Chemical Abstract Service (CAS) Registry Number**
- **Unity/Apparatus ID of the vehicle that carried the AFFF**
- **Reason for AFFF use/deployment**
  - **Firefighting**
  - **Fire prevention/vapor protection**
  - **Training**
  - **Accidental Spill**
  - **Other response actions intended to protect property/public safety**
- **Gallons of water used/deployed**
- **Gallons of AFFF used/deployed**
- **AFFF concentration used (1-6%)**

# AFFF Inventory Data Collection & Dashboard



Over the past year, OSFM and Collaboratory staff have also developed a standard set of data points in accordance with (G.S.) 58-82B.15 to be inventoried at each fire department across the State.

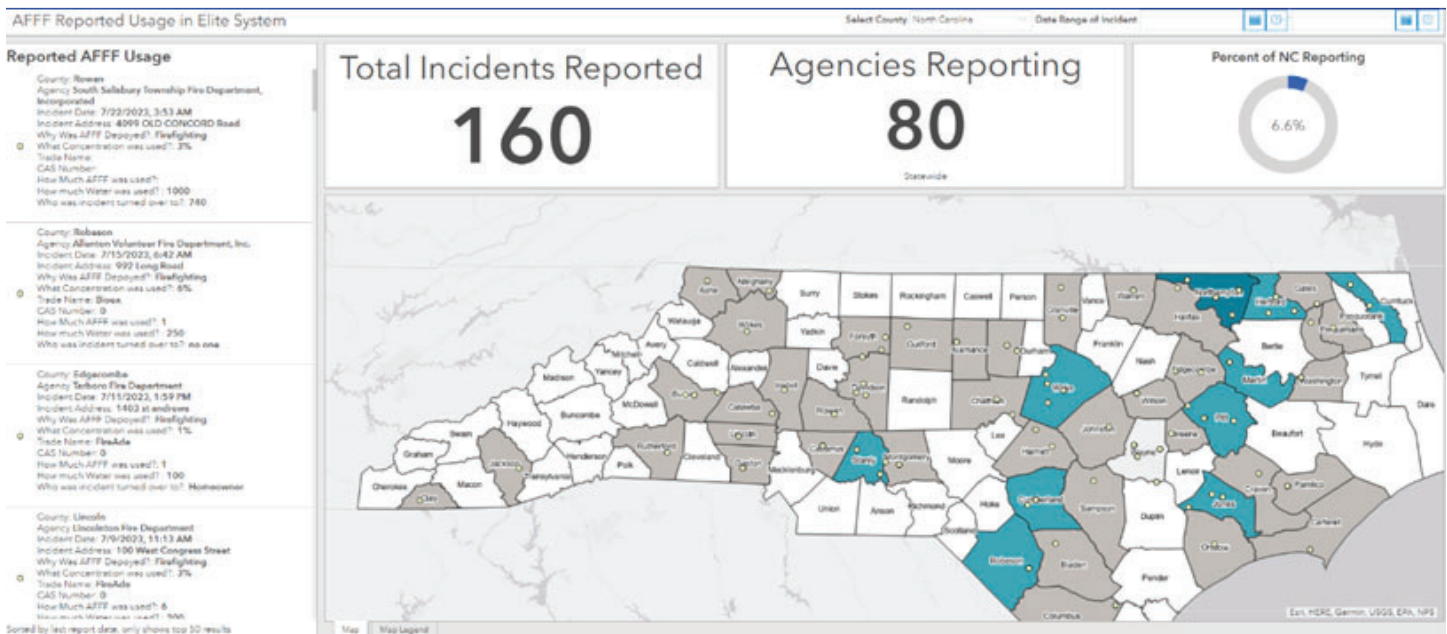
To collect this information, OSFM has developed a digital form and underlying database to store the data, as well as a dashboard for AFFF Division foam analysts to keep track of the statewide inventory in real time.

The dashboard also allows AFFF Division foam analysts to easily identify how many sites have not yet been visited, as well as view the geographic distribution of all usage incidents that have been reported in the Elite system. Combined, these tools allow the AFFF Division to accurately maintain a statewide repository of all AFFF while tracking the use and deployment of foam in specific locations.

# AFFF Inventory Data Collection & Dashboard (continued)

To date, the OSFM AFFF Division has inventoried all **1,223 fire departments** managed by State and local governments in North Carolina and **120,904 gallons** contained at those sites.

The Division has also captured reports of **160 incidents from 80 agencies** via an upgraded version of the NC Elite Incident Reporting System.



Specific information regarding inventory and usage is available upon request (see next page for contact information).





# Updates to 9s Administrative Code

11 NCAC 05A.0900 establishes the standards for insurance public protection classifications for fire districts throughout the state. Section .0910 “Incident Reporting” has since been updated to include language requiring fire departments to report AFFF usage within 120 days, or 48 hours involving a fatality. Section .0911 “Records” added that AFFF inventory and usage reports created in accordance with 11 NCAC 05A .0910 be maintained for 36 months.

## Contact

Questions about this annual report should be sent to Brian Taylor, Chief State Fire Marshal, at [brian.taylor@ncdoi.gov](mailto:brian.taylor@ncdoi.gov).

**OFFICE OF THE STATE FIRE MARSHAL**