



BRIAN TAYLOR
STATE FIRE MARSHAL

September 12, 2024

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

Re: 2024 Report on the Management of Aqueous Film-Forming Foams

Dear Senator Sanderson and Representative Dixon,

Pursuant to G.S. § 58-82B-15, please find enclosed herewith the Office of State Fire Marshal's (OSFM) report to the Environmental Review Commission on the management of aqueous film-forming foams (AFFF). The report provides the statutorily required information on the utilization and inventory of AFFF by fire departments across the State.

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

Respectfully,

Brian Taylor
State Fire Marshal

OFFICE OF STATE FIRE MARSHAL

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Annual Report

**September 1, 2023 -
August 31, 2024**

Prepared for the North Carolina
Environmental Review Commission

Brian Taylor
STATE FIRE MARSHAL

2024



OVERVIEW

Pursuant to North Carolina General Statute (G.S.) 58-82B, the Office of the State Fire Marshal (OSFM) submits this annual report on the progress of the mandatory reporting of Aqueous Film-Forming Foam (AFFF) usage and inventory by North Carolina Fire Departments and the creation of an online portal to track foam usage from the period of September 1, 2023, to August 31, 2024.



The North Carolina Office of State Fire Marshal has made considerable progress in meeting the requirements and duties of (G.S.) 58-82B .5-10. To date, the AFFF division has inventoried all **1217 fire departments and substations** in North Carolina and reported **120,036 gallons** contained at those **2119 sites**. This year, a total of **72 agencies** reported **104 incidents** into the NC Elite incident reporting system. The following annual report provides further details on the utilization and inventory of AFFF by fire departments across the State from **September 1, 2023, to August 31, 2024**.

Our MISSION

The OSFM Aqueous Film-Forming Foams (AFFF) Division consists of three regional Foam Research Analysts who report to the Chief of Inspections/ Ratings Grants & AFFF. The mission of the AFFF Division is to assist all North Carolina fire departments with accurate reporting of quantities stored and/or used, locations of, and potential exposures from AFFF, and provide education on the health and environmental effects of AFFF.

Our TEAM

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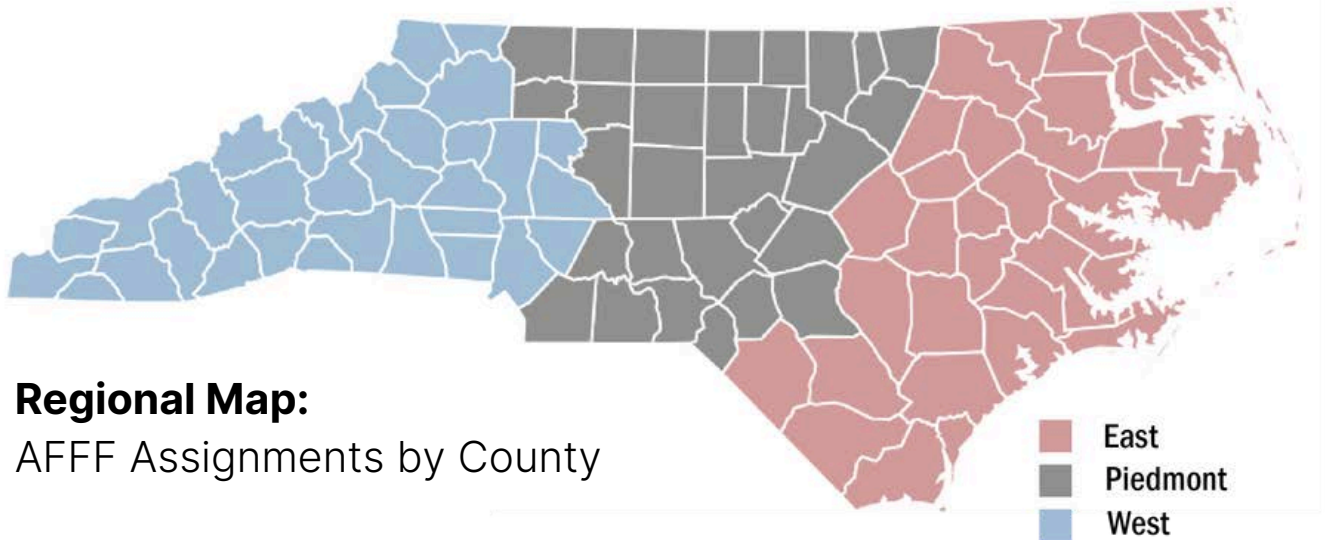
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Usage Reporting



The “Elite” program developed by the company ImageTrend is used as the North Carolina statewide repository for the National Fire Incident Reporting System (NFIRS). OSFM has collaborated with ImageTrend to add an additional section to the basic incident reporting module to account for AFFF used during a fire incident. Data design for the additional data module was developed with help from the NC Collaboratory.

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

Incident District: [Dropdown]

Alarms: [Input: 1]

Primary Action Taken: [Dropdown]

Additional Actions Taken: [Input: Find a Value...]

Was AFFF foam used at this incident?: [Yes] [No]

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

- 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 & Usage Dashboard



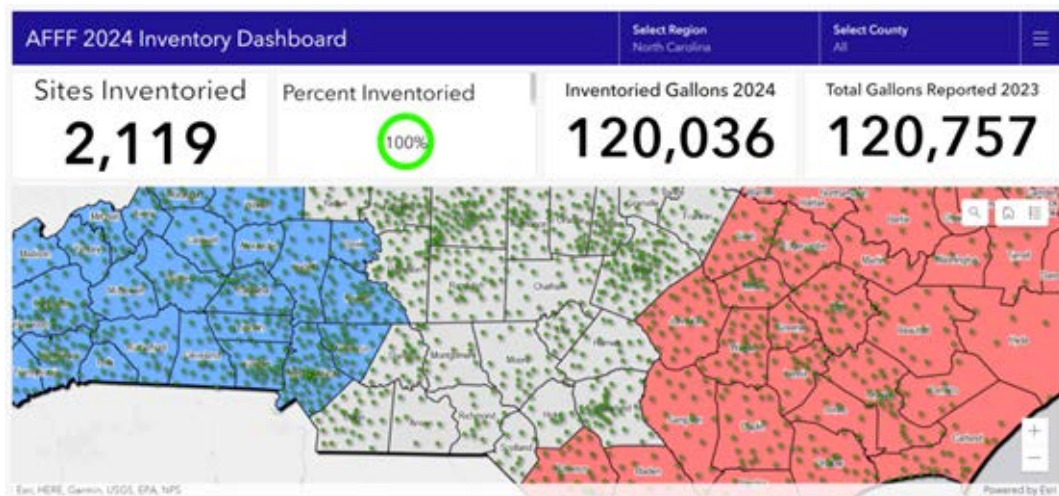
AFFF Inventory Data Collection

OSFM and Collaboratory staff have developed a standard set of data points in accordance with (G.S.) 58-82B.15 to be inventoried at each fire department across North Carolina. To collect this information, OSFM developed a digital form and underlying database to store the data.



Inventory and Usage Dashboard

OSFM has created a dashboard for the Foam Analyst Division to keep track (in real time) of all the sites they inventory and how many sites they have left to visit, and to geographically represent all the usage incidents that have been reported in the Elite system. In addition to tracking inventory, the dashboard is also used as a quick data visualization for administration to keep up with the project's progress.



Yearly Reported AFFF Usage

September 1, 2023 - August 31, 2024

104

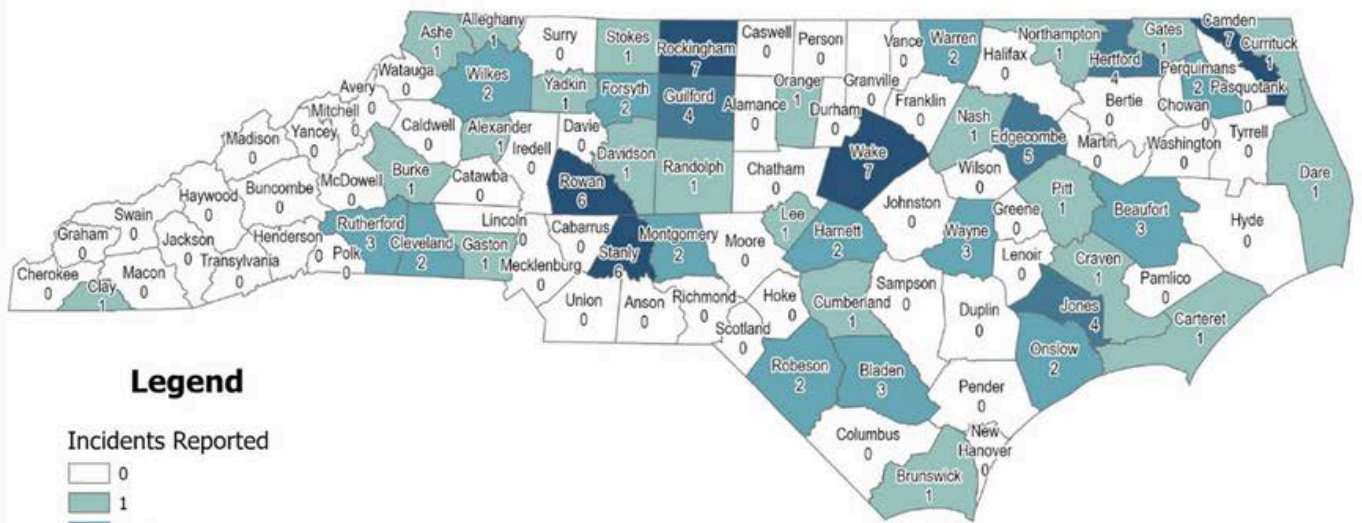
Total Incidents

1,404

Total Gallons Used

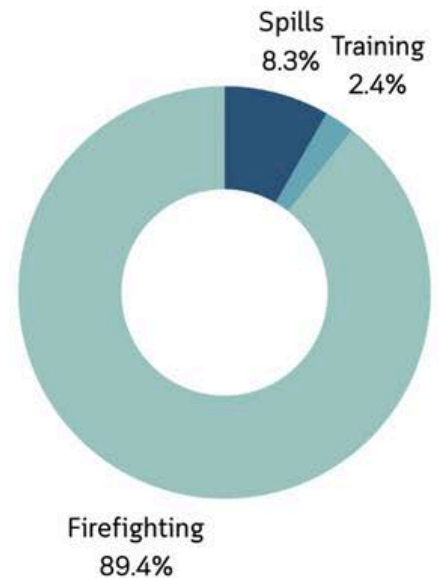
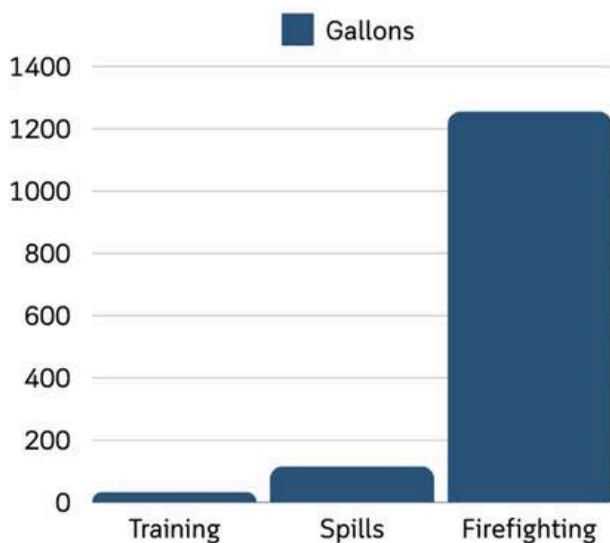
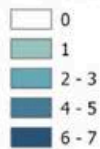
72

Agencies Reporting



Legend

Incidents Reported



Ongoing Efforts

Collection, Storage and Disposal of AFFF

During the 2024 inventory process, there were **52,942 gallons of AFFF** identified as ready for collection and disposal. As of August 29, 2024, the Foam Analyst Division has collected and stored approximately **5,585 gallons from 22 sites** across the State. The AFFF is currently stored in Charlotte at a facility acquired through a MOU with OSFM and the Charlotte Fire department.

Well Data Collection

The Foam Analyst Division, in conjunction with the North Carolina Department of Environmental Quality, is currently working to establish a database of fire departments that currently use wells as their water source. This project is ongoing with an anticipated completion date of **December 31, 2024**.



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 been updated to include language requiring fire departments to report AFFF usage within 120 days, or 48 days 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



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[https://www.ncosfm.gov/
fire-rescue/ratings-and-
inspections/afff-foam](https://www.ncosfm.gov/fire-rescue/ratings-and-inspections/afff-foam)



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