



Fact Sheet: Firefighting Foam and PFAS

The Office of the State Fire Marshal and the Illinois Environmental Protection Agency would like to provide fire authorities with information about an environmental issue – PFAS in AFFF – that may be placing Illinois firefighters and communities at risk. This information also identifies new statutory requirements specific to Class B firefighting foam.

Why do we keep hearing that firefighting foam is bad?

Class-B firefighting foam, Aqueous Film-Forming Foam (AFFF), contains Per- and Polyfluoroalkyl Substances (PFAS), a group of chemical compounds that has been associated with serious environmental and human health hazards.

Health impact studies are being conducted to further identify and understand risks associated with exposure to various PFAS substances. Thus far, such studies suggest exposure to PFAS (especially through ingestion) may increase the prevalence of certain cancers, including prostate and testicular cancers, as well as cause damage to the liver, kidneys, and other organs. PFAS exposure may also result in developmental effects in fetuses and infants. PFAS are extremely persistent in the environment, called “forever chemicals,” and are bioaccumulative, meaning they build up in the body over time.

The use of AFFF near well fields or surface water bodies also has the potential to contaminate a community drinking water supply. Released into a waterway, AFFF may cause serious injury to wildlife.

Class A foam and many other products designed to be used on flammable liquid incidents do not contain PFAS and are not part of this discussion.

Does it matter what year AFFF is manufactured?

Yes. While risks exist with all AFFF-type foams, those manufactured before 2003 were made with more toxic PFAS chemicals known as PFOA and PFOS. Other legacy foams, including those made until 2016, can degrade in the environment to PFOA.

The State of Michigan has published a guide to help determine if a firefighting foam contains PFAS: <https://bit.ly/3ehWILm>

Is the use of AFFF banned in Illinois?

No. The use of firefighting foam is not banned in Illinois.

Fire Departments are advised to conduct a risk-benefit analysis prior to any planned use of AFFF during an actual emergency involving flammable liquids. If the fire can be controlled with water, Class A foam, or other available fire suppression solutions, those tactics should be considered first. The use of foam containing PFAS for an emergency incident is always allowed.

If we use AFFF, do we need to take any additional steps?

Fire Departments are advised to adopt the following best practices – which are not legal requirements – to reduce PFAS contamination in their communities:

- Use the minimum amount of AFFF needed;
- Control runoff into waterways;
- Contain runoff to as limited an area as possible; and
- If product enters the sewer system, notify the local water treatment agency.

Can we use AFFF for training?

Yes, though using AFFF for training is strongly discouraged for several reasons:

- Repeated personal exposure to AFFF may increase a firefighter’s risk of health impacts, including cancer.
- Repeated application of AFFF to a training site has been shown to contaminate soil and groundwater.
- Use of AFFF near wells or surface water bodies could contaminate a drinking water supply.

It is also recommended that Fire Departments make their firefighters aware of the dangers detailed above and track any exposure during training or at emergency scenes.

See the note below regarding PA 102-0290 for new requirements effective January 1, 2022.

Are alternatives to AFFF available?

Yes, depending on your needs. Foam containing PFAS remains a requirement for certain agencies, particularly those serving airports and some military facilities. Fire Departments are encouraged to consider alternative suppression agents that will meet their specific needs.

How do I dispose of PFAS-containing foam that I have?

AFFF disposal is difficult at this time as U.S. EPA has issued only interim guidance for treatment and disposal of PFAS-containing materials and made no specific recommendations for AFFF.

At present, solid waste landfills are allowed to accept AFFF, but may choose not to. Contact a waste disposal contractor to determine what specific options are available to you based on your location.

Unused or unwanted foam should never be dumped or allowed to leak into the ground. Proper disposal does not include flushing, draining, or otherwise discharging any firefighting foam into a ditch, waterway, storm drain, or sanitary sewer.

New Law

[Public Act 102-0290](#) was signed into law on August 6, 2021. The following requirements will apply:

Beginning January 1, 2022, any person, unit of local government, fire department, or State agency that discharges or releases Class B firefighting foam that contains intentionally added PFAS chemicals must notify the Illinois Emergency Management Agency (IEMA) within 48 hours of AFFF discharge or release, including use at an emergency incident. The notification must include:

New Law Continued:

1. The time, date, location, and estimated amount of Class B firefighting foam discharged or released into the environment;
2. The purpose or reason of the discharge or release into the environment;
3. The containment, treatment, and disposal measures to be taken or used to prevent or minimize the discharge or release of the Class B firefighting foam into the environment; and
4. The name of the person, unit of local government, fire department, or State agency, the local incident number, and the Fire Department Identification (FDID) number, if applicable.

To report to IEMA, call 1-800-782-7860.

Beginning January 1, 2022, AFFF may not be used by a person, local government, fire department, or State Agency for training or testing purposes unless the fire authority has performed all of the following:

1. Evaluated the testing facility for containment, treatment, and disposal measures to prevent uncontrolled release of Class B firefighting foam to the environment;
2. Notified IEMA of the AFFF discharge or release within 48 hours; and
3. Provided training to employees of the possible hazards, protective actions, and a disposal plan.

Flushing, draining, or otherwise discharging the foam into a storm drain or sanitary sewer is not an appropriate containment, treatment, and disposal or storage measure.

Class B firefighting foam containing PFAS must be properly disposed of within 90 days of the expiration date provided by the manufacturer.

On and after January 1, 2022, manufacturers, including distributors, must notify fire departments prior to the fire department's purchase of Class B foam containing PFAS clearly indicating that:

1. The product contains PFAS that may be hazardous to health or the environment;
2. The use of the product is regulated and restricted under this Act; and
3. Other Class B firefighting foam options may be available for purchase.

On or before January 1, 2022, and on or before January 1 of each of the 5 years thereafter, OSFM must conduct a survey of fire departments to determine:

1. Each fire department's name, Fire Department Identification (FDID) number, if applicable, and address;
2. The amount, type, and date of manufacture and the expiration date of any Class B firefighting foam containing PFAS that each fire department possesses;
3. How, where, and when each fire department has used Class B firefighting foam containing PFAS within the previous 12 months, the NFIRS incident number, and, if reported to IEMA, the report number provided by IEMA; and
4. How much, if any, Class B firefighting foam containing PFAS the fire department has disposed of, and the method of disposal, during the reporting period.

Beginning no later than January 1, 2023 and for a period of no less than 2 years, Illinois EPA must post on its website information regarding the proper methods for disposing of Class B firefighting foam containing PFAS.

Other Recommended Actions

Fire Departments should ensure that their firefighters are aware of the health risks related to AFFF exposure. In addition to this document, the resources identified below should be of assistance in understanding and communicating the dangers of PFAS-containing foam.

Fire Departments should document firefighter AFFF exposures from training or on emergency scenes.

For a comprehensive explanation of PFAS in firefighting foams, prepared by the Interstate Technology and Regulatory Council:

<https://pfas-1.itrcweb.org/3-firefighting-foams/>

For more information about PFAS generally, prepared by Illinois EPA:

<https://www2.illinois.gov/epa/topics/water-quality/pfas/Pages/default.aspx>

‘Forever chemicals’: What firefighters need to know about AFFF and PFAS, prepared by FireRescue1

<https://www.firerescue1.com/firefighting-foam/articles/forever-chemicals-what-firefighters-need-to-know-about-aff-and-pfas-8pdsKB4G2G1fJoIM/>