

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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Fact Sheet Storage and Use of Class B Firefighting Foams Under New Hazardous Substance Regulations

On April 25, 2016, the New York State Department of Environmental Conservation (DEC) completed an emergency rulemaking and concurrently proposed a formal rulemaking that listed four new chemicals on the list of hazardous substances that may be found in Class B firefighting foam. The list of hazardous substances is included in DEC's regulation 6 NYCRR Part 597, "Hazardous Substances Identification, Release Prohibition, and Release Reporting."
<http://www.dec.ny.gov/regulations/105074.html>.

What specific actions is DEC taking?

To address concerns about the potential environmental and public health impacts of these substances, DEC adopted an emergency rule that modifies the list of hazardous substances in Part 597 to include:

- perfluorooctanoic acid (PFOA-acid, Chemical Abstracts Service (CAS) No. 335-67-1),
- ammonium perfluorooctanoate (PFOA-salt, CAS No. 3825-26-1),
- perfluorooctane sulfonic acid (PFOS-acid, CAS No. 1763-23-1), and
- perfluorooctane sulfonate (PFOS-salt, CAS No. 2795-39-3).

How are these substances related to Class B firefighting foams?

These substances have been and in some cases, may still be, components in Class B foams, which include aqueous film forming foam (AFFF), alcohol resistant aqueous film-forming foam (AR-AFFF), film-forming fluoroprotein foam (FFFP), alcohol resistant film-forming fluoroprotein foam (AR-FFFP), and fluoroprotein foam (FP, FPAR).

PFOA and PFOS form a class of chemicals called "perfluorinated compounds (PFCs)" that act as surfactants to improve the effectiveness of Class B firefighting foams in fighting petroleum and other fires. In particular, AFFF manufactured by the 3M Corporation sold prior to 2004 contained PFOS. The use of PFOS in AFFF was voluntarily phased out by U.S. manufacturers in 2002. Inventories were sold through 2003. PFOS-based AFFF is still manufactured in other countries (e.g., China, India). Older AFFF that meets military-specifications may contain PFOS. PFOA has also been used in some AFFF. The manufacture of PFOA in the U.S. was voluntarily phased out in 2015. This needs to be confirmed with each manufacturer.

What impact does this have on storage and use of Class B firefighting foams?

There are three major impacts on the storage and use of Class B firefighting foams:

1. If you are storing Class B foam, you may be subject to the registration and storage requirements of the DEC's Chemical Bulk Storage (CBS) regulations (6NYCRR Parts 596 – 599). These requirements include standards for the storage and handling of hazardous substances in tanks or other bulk containers (details below).
2. The release of one pound or more of one of these hazardous substances into the environment is prohibited. Part 597 allows the use of Class B firefighting foam containing PFOS or PFOA for fighting fires (not for training) for one year until April 25, 2017.

3. Where there has been a release of one or more of these hazardous substances causing environmental contamination, cleanup may be required under one of the DEC's remedial programs (i.e., State Superfund or a Brownfields Program).

How do I know if I am subject to the CBS regulations?

You are subject to the storage and handling requirements of the CBS regulations if the Class B foam you have meets both of the following conditions:

1. the Class B firefighting foam contains 1% or more by volume of one or more of the hazardous substances listed in Part 597; and
2. the Class B foam is stored in
 - a. an aboveground storage tank (stationary device) of 185 gallons or greater,
 - b. an underground tank of any size, or
 - c. a container (non-stationary device) that is used to store 1,000 kilograms (2,200 pounds) or more for a period of 90 consecutive days or more.

To determine the percentage of hazardous substance in the Class B foam in your possession, you will need to contact the manufacturer. DEC is in communication with the manufacturers and is requesting that this information be provided on their websites.

If you meet both of the above conditions, then you need to register your tanks (stationary devices) with the DEC (see Part 596). The registration requirement went into effect on the effective date of the regulation (April 25, 2016). While the registration requirements are immediately applicable, the storage and handling requirements found in Part 598 are not applicable for two years (until April 25, 2018).

If the Class B firefighting foam I have contains one or more of the newly listed hazardous substances, can I still use it?

The release of these hazardous substances into the environment in a quantity greater than one pound is prohibited. Recognizing the public safety issues involved and the need for time to identify and replace Class B firefighting foam containing these substances, the newly adopted regulations allow for continued use of Class B firefighting foam that contains these substances for up to one year until April 25, 2017. These foams may be released to the environment only for fighting fires and not for training or any other purpose.

If you use Class B foam that contains these hazardous substances to fight a fire and more than one pound of a hazardous substance is released into the environment, then the release must be reported to the DEC's Spill Hotline (1-800-457-7362). In order to determine if there has been a release of one pound or more, you will need to know the amount of foam concentrate that has been used and the concentration of the hazardous substance in the foam. Manufacturers may provide guidance on their websites on how to make this determination, otherwise you should contact the manufacturer of any Class B firefighting foam in stock to determine the percentage of these compounds it may contain.

If you determine that the Class B firefighting foam you have contains hazardous substances such that you cannot use it without releasing one pound or more of a hazardous substance, then you should replace it on or before April 25, 2017. To dispose of Class B foam containing PFOS/PFOA, DEC recommends that the foam concentrate be solidified by mixing it with Portland cement (Type 1 is appropriate) so that when hardened, samples would not produce liquids. Mix the foam concentrate into the dry cement according to the manufacturer's instructions until thoroughly mixed but not soupy. For questions about the appropriate mixture please contact the DEC's Division of Materials Management (for Regional contact see <http://www.dec.ny.gov/chemical/76718.html>). Institutions (e.g., fire departments, hospitals, schools, airports, government agencies, etc.) can dispose of the solidified material as a solid waste without special approvals.

Generators of industrial wastes (e.g., factories, major oil storage facilities, etc.) must have a specific DEC authorization to dispose of solidified Class B foam in a permitted landfill. Therefore, generators of industrial wastes (e.g., factories, major oil storage facilities, etc.) should contact the DEC's Division of Materials Management (see link above) to help coordinate disposal.

Additional information regarding **6 NYCRR Part 597 Hazardous Substances Identification, Release Prohibition, and Release Reporting** is available here: <http://www.dec.ny.gov/regulations/104968.html>. Questions regarding that regulation or the “**Storage and Use of Fire Fighting Foams Under New Hazardous Substance Regulations**” guidance document should be directed to the NYS Department of Environmental Conservation’s Bureau of Technical Support, Division of Environmental Remediation at 518-402-9543 or by email at derweb@dec.ny.gov.