First Synthetic Fluorine-Free Firefighting Foam Added to US Department of Defense's Qualified Products List

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Recently, the US Department of Defense (DOD) added a fluorine-free firefighting foam to its Qualified Products List (QPL). This new Synthetic Fluorine-Free Foam (SFFF) is the first of its kind to be added to DOD's QPL, and presently is the only SFFF available on the market. Not only is SFFF touted as an eco-friendly addition to the QPL, but according to test results, its performance actually exceeds that of aqueous film forming foam (AFFF) with respect to certain standards, such as burn back, drain-time performance and expansion ratio. Moreover, this new SFFF is biodegradable, contains no intentionally added per- and polyfluoroalkyl substances (PFAS), and works with several equipment systems.

Prompted by a fire aboard the USS Forrestal in 1967 that killed and injured hundreds, military standard (MIL-SPEC) F-24385 was implemented by DOD, which mandated the use of AFFF. Hence, for over 50 years, AFFF was used at 700+ military sites throughout the country. It wasn't until 2019 that DOD no longer required the use of PFAS-containing AFFF. However, because performance standards remained unchanged and no effective PFAS-free alternative existed, its use likely continued. Two years later in January 2023, Congress required DOD to update its firefighting foam standards, and mandated DOD stop purchasing PFAS-based AFFF by October 1, 2023, and stop using it altogether by October 1, 2024. These specifications will also impact commercial airports, as the Federal Aviation Administration (FAA) requires them to meet and comply with the same standards set by the military. That said, while FAA recently announced it authorized the use of firefighting foams that are qualified to this new specification, FAA does not presently require Part 139 airports to use SFFF and will allow airports to continue using AFFF, even after PFAS-free foams are qualified. Airports should be aware, however, that a number of states have banned the use of PFAS-containing firefighting foams, though those bans are subject to exceptions which permit their use when required by federal law. Of course, once PFAS-free foams are qualified and available, those exceptions will no longer be effective.

Now that SFFF is available, military bases and commercial airports throughout the US will likely feel pressured to transition from traditional PFAS-containing AFFF sooner rather than later. While an immediate transition may not be required, failure to do so in a timely manner may result in unnecessary liability. Thus, as additional PFAS regulations, guidelines and standards are introduced locally and nationwide, it is imperative for all industries—not only aviation—to take necessary steps to minimize potential liabilities, ensure compliance and address solutions in an ever-changing landscape.

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