European Union Aviation Safety Agency

FAQ n.142311

FAQs:

Rescue and Firefighting, Aerodromes (ADR), Regulations

Question:

Does fluorine-free foam offer equivalent performance and effectiveness on hydrocarbon fires?

Answer:

Fluorine-free foams have generally demonstrated a different level of performance with regard to AFFF.

The lack of aqueous film-forming capability makes achieving initial fire suppression more difficult and affects resistance to re-ignition. This performance difference also depends on the type of flammable liquid or hydrocarbons to be extinguished.

However, many fluorine-free foams have demonstrated fire performance levels and effectiveness on kerosene that meet the minimum standards used to assess AFFF foams.

In practice, when using fluorine-free foam, **the ability to achieve quick**, **complete** and **lasting suppression largely depends on the firefighters' capacity to create and maintain a uniform foam blanket**.

In contrast, AFFF foams, with their aqueous film-forming properties, maintain better effectiveness even when the foam blanket is imperfect or degrades during the operation.

As a result, foam **application methods and firefighter training are to be considered as critical** when using fluorine-free foam than when using AFFF foam.

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Link:

https://www.easa.europa.eu/en/faq/142311