

APP203827 Proposal to amend the Fire Fighting Chemicals Group Standard 2017

Submission Reference no: 11

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Submitter Type: Not specified

Source: Web Form

Overall Position: I oppose some of the proposals

Overall Notes:

Clause

What is the reason for making the submission?

Notes

In brief, what is proposed by the EPA will likely have major cost implications for many of our customers that operate fixed foam based fire protection systems. While what is proposed focuses on the potential environmental issues associated with fire-fighting foam concentrates, it is silent with regards to the likes of the following; • The fire protection engineering changes required to alter many existing fixed systems. • The on-going costs associated with testing and compliance. • The potential costs associated should an incident occur i.e. for clean-up and disposal. * The effectiveness of FF foam concentrate. * This has the potential to backfire and do more damage to the environment The document is silent on the engineering associated with changing such systems and although not mentioned it reads like the EPA has assumed that any new replacement foam concentrate will be a "drop in replacement" for the existing. This is not necessarily the case. Foam based fixed fire protection systems are just that, "a system". A fixed system the "system" essentially consists of three main components; a) The foam concentrate b) A method of storing the foam concentrate (this could be an atmospheric tank or the likes of a bladder tank that is dependent on a balanced proportioning system) c) A proportioning device i.e. this mixes the foam concentrate with the water in a pre-determined ratio to give foam solution which is distributed to the fire i.e. typically 1, 3 or 6%. d) The discharge device i.e. the device used to distribute the foam solution to the fire e.g. this could be a; nozzle, sprinkler head or specifically engineered foam chamber in the case of the protection for a flammable liquids bulk storage tank. When a fire-fighting foam concentrate manufacture produces a product, it typically is tested by the likes of independent testing organisations before it is released to the market. Fire Protection Standards such as NFPA-11 state that, "all components shall be listed for their intended use". When the testing is undertaken it typically involves testing the foam concentrate with certain hardware (i.e. proportioner, discharge devices etc.). The approval (or listing) is then typically coupled to the set-up and hardware that was used during the testing approval process. This process ensures that the foam concentrate will perform as it was originally tested and approved for. To reiterate it is a "system" as opposed to a standalone product. It is possible that a concentrate produced by one manufacturer will work with the foam system hardware manufactured by another supplier, however there may not be fire testing evidence to prove this. In such cases often the physical properties such as density and viscosity of the two products are compared along with the required application density. In such cases "engineering judgement" is used to determine the likely performance. 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Clause

Do you wish to speak at a hearing?

Position

No

Notes

Clause

What is your preferred outcome of this consultation?

Notes

To continue to allow C6 AFFF foam concentrate where the application is bunded and there is no risk to the environment.

Clause

Do you consider there are any applications for which fluorine-free foams are not suitable or do not have relevant approvals? If yes, please specify.

Position

Yes

Notes

In general fluorine free foam is not intended for fuel in depth fires, it is great for small scale spill fires but less effective on fuel in depth fires. I would not recommend to use a fluorine free foam to protect a bund or a tank. When dealing with fluorine free foam it is even more crucial to have gentle application as any foam that gets in contact with the fuel will pick up fuel and as an effect of that will also burn. The best way to protect the environment if there is a fire is put out the fire quickly . C6 AFFF does this . The technology is not quite there with Fluorine Free Foam concentrates for all applications.

Clause

What do you think of the practicality of these disposal provisions, in terms of the resources and costs involved?

Notes

What the EPA is proposing will add huge costs to all users be it AFFF or Fluorine free. The approval authorities (AHJ) of the fire protection system want to see full scale commissioning tests, some of these are in excess of 10,000 l/min . If a 4 to 5 minute test is undertaken i.e. the typical time it takes to reach steady state conditions and take samples this means 40,000 - 50,000 liters of foam solution needs to be exported to Australia for high temperature destruction. I a not sure on the rate but I think it is in the order of \$6 /l . This would be a very expensive exercise.

Clause

Would your business be able to contain all foam wastes?

Notes

N/A as this question is applicable to our customers . Our observations are that most of our customers sites are already well bunded.

Clause

If not, is this due to cost or practical difficulties?

Notes

As above

Clause

Do you have any concerns about fluorine-free foams potentially containing other persistent, toxic and/or bioaccumulative compounds?

Position

Yes - please specify

Notes

The EPA needs to read up on this many fluorine free foam concentrates have high fish toxicity effects that modern C6 AFFF products .

Clause

Do you agree with phasing out C6 AFFF at the same timeframe as C8 AFFF?

Position

No - please tell us why

Notes

For reasons given above . Fluorine free foam is not as effective as AFFF in all cases. The EPA is "playing with lives" . i.e. fire fighters and the public . Imagine the situation if the EPA banned AFFF i.e. as per the 5 year phase out say by the year 2026. In the year 2028 there was a major aircraft incident at Wellington Airport . The Crash Rescue Authorities rushed to the scene and applied fluorine free foam , however it application was slow and the fire continued out of control and hundreds of lives were lost ! The EPA could be held legally responsible for poor-ill informed decision making. In such cases you want to put out the fire quickly, AFFF has proved itself here . This is why the US Military specify Mil spec AFFF . Putting the fire out quickly saves lives and the environment . Likewise with a large fire could occur in a large hydrocarbon product tank . We have been advised that in general fluorine free foam is not intended for fuel in depth fires hence the fire may continue to burn for a prolonged period thus causing damage to the environment .

Clause

Which is your preferred option?

Position

Grant permissions to continue to use C6 foams

Notes

As detailed above .

Clause

What are your reasons?

Notes

As detailed above . - Risk to human lives if only FF is allowed - Risk to the environment i.e. if FF foam does not put out the fire - FF foam is not a drop in replacement . Typically hardware and system design would have to be re-engineered and replaced if we were forced to go FF.

Clause

Can you estimate the cost to your business of phasing out C6 AFFF?

Position

Yes - please specify

Notes

We are a supplier of engineered fire protection systems to our customers . Cost would depend on the application but could easily be north of \$500K if foam , hardware , pumps and tanks needed to be changed.

Clause

Do you have any other comments to make about the proposed amendments?

Notes

Not sure why the EPA is taking a more rigid stance that the rest of the world when the technology (i.e. FF foams) is not quite there .

Clause

Do you have any comments about the workability of the draft amendments shown in the revised Group Standard in the Appendix? Please include the relevant clause and sub clause number in providing any feedback.

Notes

No