

# APP203827 Proposal to amend the Fire Fighting Chemicals Group Standard 2017

## Submission Reference no: 14

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**Submitter Type:** Not specified

**Source:** Web Form

**Overall Position:** Support in Part

### Overall Notes:

#### Clause

What is the reason for making the submission?

#### Notes

Responsible Care NZ as the NZ Chemical Industry Association, has a significant interest in this field. From the position of safe chemical management throughout the pan-life-cycle of the product including in concentrate as well as dilute produced foam, environmental - community - and life protection, the intent and primary purpose of the product application. A broad spectrum interest offering a broad spectrum viewpoint.

#### Clause

Do you wish to speak at a hearing?

#### Position

No

#### Notes

#### Clause

What is your preferred outcome of this consultation?

#### Notes

Some flexibility in holistic risk management decision making in the area of "AFFF to use or not to use". And including the adoption of F3 as an alternative based on the risk versus likely outcome. A condition of retaining AFFF for certain applications, that emergency service response SOPs provide for resourcing from the outset, to provide a direct and focused response to protect the environment throughout the incident duration with demonstrable Standard Operating Procedures. As opposed to leaving it to the Regional Council or considering it as a task post-incident.

#### 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

F3 remains largely unproven external to the clinical laboratory approach conditions alongside the incumbent AFFF products. Aqueous Film Forming is a critical component of a produced foam blanket to provide an extremely rapid knockdown for preservation of life, military and civilian aviation asset preservation, maintain foam integrity, minimising burn-back and breakdown, and adhesion to non-horizontal surfaces. Whilst requiring continuous replenishment during application, AFFF reportedly requires much less replenishment, retains film integrity and stability in windy conditions, and continuously disseminates detergent across a formed bubble in a scientifically measured manner. According to the EPA Discussion Document F3 does not form this highly effective aqueous film. It is less stable which although this is a selling point for non-persistent environmental breakdown, it is not a quality that enhances the making of a fuel / vapour barrier, when the outcome is to form a stable foam blanket in much less than ideal conditions which is when firefighting foam is usually called upon. End result will likely be a significantly increased need for replenishment of F3 application, blending water supply volumes, and Foam Concentrate feed-stock to an incident. The two primary incident types namely 'a fuel fire' and 'a fuel-load with no fire but an extreme risk thereof', require different response techniques. The extremely rapid knockdown is a preferred approach in military aviation to preserve assets. It is our understanding that High-Expansion foam application as a highly specific application requirement, is not supported in the F3 product line. Rainy and water spray conditions are a well-known hindrance to foam

application and consideration of this is paramount. Considerable work as a joint activity between Tasmania EPA and Fire Service which has confirmed the difficulty around whether to apply Class B Foam of either type or to avoid this and then have to deal with the resulting environment damage and firefighting outcome. A change in the historical mindset of putting out a fire at all costs vs allowing a total burn to destruction, taking defined factors into account This approach can have tiered thresholds of response.

**Clause**

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

**Notes**

Whilst the proposal is the ideal, the volume of wastewater for flushing is likely to be significant with no pragmatic or cost effective method to determine an unknown. Namely the presence or otherwise, and concentration of the problematic contaminant in order to determine containment for disposal, or a safe level for disposal to wastewater treatment in line with the EPA guideline to Local Authorities Trade Waste practices. Off-shore destruction is cost prohibitive for NZ Inc. Not just for Banned Firefighting Chemicals, but for anything to be disposed of by high temp incineration methods.

**Clause**

Would your business be able to contain all foam wastes?

**Notes**

A very wide spectrum question.. Unused Concentrate will obviously require dedicated locations to stockpile until a destruction process is identified and affordable. Using valuable real estate to stockpile possibly disrupting / preventing core business operations due to space constraints. Stockpiling and paying perpetual rent for the space is likely a cheaper commercial option than off-shore disposal. A stockpiling preference will likely parallel the high profile Exide Battery waste stocks stored largely 'under the compliance radar' in Seaview Petone. Containing / Retaining flushing wash water will be very problematic and result in huge volumes of purpose-built ponding similar to dairy waste dumping which is now creating rural issues around the country. As there is no quantifiable and cost-effective sample test options retaining spent flush water is fraught with issues. Emergency services applying AFFF or F3 at an incident will struggle to retain run-off and cannot be expected to do so in the initial stages of an incident. Although a significant advancement to current practices would be to deploy crews (additional to traditional pre-determined attendance) tasked in the turnout string at time of the first alarm where foam application is a SOP technique, specifically for environmental protection. A common practice on the global stage for produced foam capture and other types of high fire-water volumes. Drain blocking and covering, activating interceptors identified during Emergency Response pre-planning, temporary bunding to divert into storage, and building sumps for drafting. All perfectly feasible options to reduce environmental contamination if foam of either AFFF or F3 is a required medium.

**Clause**

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

**Notes**

A mix of both practicalities and also the extreme costs involved. If the Ministry for the Environment would re-visit the banning of high-temp incineration in NZ much of this issue and other waste disposal issues would be addressed in an environmentally friendly manner locally. Waste to Energy as a long-term option with storage of banned product meantime.

**Clause**

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

**Notes**

F3 Firefighting Chemicals are only required to meet a standard to be afforded the Fluorine Free status, and traces could well still be identified, albeit below the current standard. As mentioned in previous responses, a new approach to an enhanced incident response which includes environment protection parallel to that of traditional incident response as we know it currently. This enhanced focus on the environment particularly when permanent secondary containment is not in place, will better position NZ Inc into the future and as new information comes forward. Equal response emphasis to incident mitigation and environment protection will set a new and more appropriate standard in these modern times.

**Clause**

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

**Notes**

It is too simplistic to simply view a total phase out of all AFFF as the only option for a product that has a proven critical performance role in the saving of life and extremely sensitive assets of national security importance. Until F3 is proven in anger where speed, efficacy, water supplies, duration of product remaining effective, and resulting clean-up requirements... there should be options to allow targeted continued use but with built-in procedures to deliver the intent of change which is POPs being kept out of the environment.

**Clause**

Which is your preferred option?

**Position**

Grant permissions to continue to use C6 foams

**Notes**

**Clause**

What are your reasons?

**Notes**

As stated earlier. With additional infrastructure, response resourcing, and an organisational strategic output to government on environmental protection from the outset... there is room to move on who should be permitted to continue using AFFF.

**Clause**

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

**Notes**

We represent numerous businesses and cannot directly add value to this question.

**Clause**

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

**Notes**

A singular focus is apparent in this discussion document on the POP chemical and the environment, completely excluding the primary purpose of the Firefighting Chemical which is preventing loss of life and the adverse commerce impact of total asset destruction. Considerably more work is required in confirming the overall comparative efficacy of F3 and AFFF. This includes AFFF - AR (alcohol resistant) alongside F3 - AR (Alcohol Resistant) and the resulting outcome. Strong focus and research remains a critical component required to enable training to be undertaken legally, and efficiently to prevent incorrect application and failure of assigned tasks. Research into environmentally friendly mediums that present and function in foam equipment as if it were the real produced foam.

**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**

Provision required in the Group Standard to embrace non-emergency firefighting training in order to efficiently deploy Firefighting Foam.