What questions should an end user be asking their Class B foam concentrate supplier with regard to PFOA?
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1. INTRODUCTION


Note:

PFOA-related substances are substances that, based on their molecular structure, are considered to have the potential to degrade or be transformed to PFOA.

Within the Regulation (under Point 4) two different concentration limits are stated when considering when the chemical is used in the production of, or placed on the market in another substance, as a constituent; a mixture; or an article. These are 25 ppb of PFOA and its salts, and 1,000 ppb for one or a combination of PFOA-related substances. This Regulation comes into effect for products placed on the market from 4th July 2020.

Within the Regulation specific derogations exist for firefighting foam concentrate and use of firefighting foam solution as follows:

4(e) concentrated firefighting foam mixtures that were placed on the market before 4th July 2020 and are to be used, or are used in the production of other firefighting foam mixtures.

1. Shall not apply to firefighting foam mixtures which were:
   a) Placed on the market before 4 July 2020.
   b) Produced in accordance with point 4(e), provided that, where they are used for training purposes, emissions to the environment are minimised and effluents collected are safely disposed of.

2. WHAT DOES THIS LATEST REGULATION MEAN TO END USERS?

i) Firefighting foam concentrate manufactured and available for sale before 4th July 2020 within the EU can have levels of PFOA greater than 25 ppb, or greater than 1,000 ppb for one or a combination of PFOA-related substances.

ii) Firefighting foam concentrate stored as part of a fire suppression system, or stored on board a firefighting vehicle or apparatus, or stored as a back-up for said suppression systems or emergency response before 4th July 2020 can also exceed the levels of PFOA and of PFOA related substances.

iii) Foam concentrate as per points (i) and (ii) above may be used to produce foam solution and used for firefighting efforts, and for testing purposes, noting that only for training purposes has the specific note 5 (b) stated emissions to the environment are minimised and effluents collected safely disposed of!

iv) New Foam Concentrate manufactured or supplied within the EU after 4th July 2020 will need to meet the levels for PFOA and PFOA-related substances. Foam suppliers and end users will both be responsible for ensuring that the foam concentrate complies.
2.1 NEW USER

It is not the purpose of this document to cover the hazard analysis and determination of the operational plan for tackling any spill or firefighting mission resulting from this analysis. It is assumed that the end user will have carried out such analysis and planning in house or in cooperation with suitably experienced and qualified personnel / third parties and concluded that firefighting / suppression using the medium of firefighting foam agent is an appropriate action.

That said the New User will still need some information available for their potential suppliers which shall include and not be limited to (Noting that some questions may not be necessary for some users):

- What fuels are currently on the site or covered by the mission?
- Are there any plans for additional fuels to be required on the site in future, or covered within the future mission?
- Will the foam concentrate be used for firefighting (generally delivered manually through hose or monitors) or with dedicated foam suppression system(s)?
- How will the foam concentrate be stored, and proportioned (mixed with water) to make the foam solution?
- Will the foam be applied aspirated or non-aspirated?
- Is it compatible with existing foam equipment?
- Are there any additional local legislation, or environmental considerations that need to be taken into consideration?

With the information as above available the questions to the Supplier need to cover:

**Fire Performance:**

- What International Standards does the foam concentrate comply with?
- What third party test certificates are available to support the statements on compliance (as above)?
- Is the testing on the specific fuel that the end user has, or based on the type of fuel?
- If foam concentrate is to be used in a system with non-aspirated sprinkler heads or spray nozzles what rates of application are being recommended as the minimum rates of application?
- What test data is available to support the rates of application as above?

**Compatibility and suitability for use with hardware:**

- Ask the supplier to confirm that the foam concentrate is compatible with the hardware that it will be used with.
- What test data is available to support the compatibility statements as above?
**Environmental Compliance:**

- Is the Supplier offering a PFAS (Fluorinated) based foam concentrate or a Fluorine Free foam concentrate?
- Ask the Supplier to confirm that the offered foam concentrate is in compliance with the latest Commission Regulation (EU) 2017/1000?
- If prior to 4th July 2020 ask the Supplier to confirm whether that the offered foam concentrate will comply with if the foam concentrate WERE to be supplied AFTER 4th July 2020.
- What data is available to support the compliance statements made?

**Note:**

*Although the purpose of this document is to provide some guidance in the choice and use of Class B Firefighting foam agents in relation to the latest environmental legislation on PFOA it was felt appropriate to include the notes on Fire Performance and Compatibility in this section.*

### 2.2 EXISTING USER

Similar to the New User it is not the purpose of this document to address the hazard analysis, and firefighting / fire suppression system selection but again the Existing User is going to need to gather information on their current foam concentrates and foam systems, and the adequacy of any changes, to ensure the original system design objectives are not compromised, and the system will continue to operate equally effectively and efficiently into the future.

- What foam concentrates do they have on site?
- Do you have records of and when they were supplied?
- If the foam concentrate is stored in the original totes, drums or pails are you able to get the batch numbers and manufacturing dates from the labels?
- Is it compatible with existing equipment?
- Will the replacement foam be applied aspirated or non-aspirated?
- Are there any additional local legislation, environmental considerations that need to be taken into consideration?
As stated in the introduction the Commission Regulation does provide a specific derogation covering the use of firefighting foam agents (concentrates and foam solution) supplied and stored for firefighting purposes prior to 4th July 2020, however as a number of foam concentrate manufacturers are and have been supplying foam concentrates that comply with the PFOA levels required post 4th July 2020 then an Existing User may still wish to ask questions related to the compliance to the Commission Regulation.

- Has the Supplier previously supplied a PFAS (Fluorinated) based foam concentrate or a Fluorine Free foam concentrate? (ref future compatibility).
- Ask the Supplier to confirm that the supplied foam concentrate is in compliance with the latest Commission Regulation (EU) 2017/1000?
- Ask the Supplier to confirm whether the supplied foam concentrate will comply with this Regulation if the foam concentrate WERE to be supplied AFTER 4th July 2020?
- What data is available to support the compliance statements made?

For an Existing User the issues that may occur after 4th July 2020 if they need to purchase foam concentrate to use alongside their original foam agents, or to replace / top-up foam concentrates in existing systems etc. do also need to be considered. Again, the questions as above regarding the current foam concentrates and foam systems need to be answered by the end user prior to entering into discussions with their potential supplier(s).

Now we have to address the same questions as with a New User but adding in additional questions about compatibility of the new foam concentrate with the existing foam concentrate.

**Fire Performance:**

- What international standards does the foam concentrate comply with?
- What third party test certificates are available to support the statements on compliance (as above)?
- If compliance is on polar solvent fuel fires is the testing for the specific foam equipment in use, or based just on the type of fuel (alcohol, ketone etc)? How was the foam applied in these tests and does it equate to the equipment type existing in your facility? If not, request data or conduct additional testing that does?
- If foam concentrate is to be used in a system with non-aspirated sprinkler heads or spray nozzles what rates of application are being recommended as the minimum rates of application?
- Do these rates of application differ from those recommended with the previously supplied foam concentrate?
- What test data is available to support the rates of application as above?
Compatibility and suitability for use with hardware:

• Ask the supplier to confirm that the foam concentrate is compatible with hardware that it will be used with.

• What test data is available to support the compatibility statements as above?

Environmental Compliance:

• Is the Supplier offering a PFAS (Fluorinated) based foam concentrate or a Fluorine Free foam concentrate?

• Ask the Supplier to confirm that the offered foam concentrate is in compliance with the latest Commission Regulation (EU) 2017/1000?

• What data is available to support the compliance statements made?

Compatibility of foam agents:

• Ask the supplier if the foam concentrate is compatible, physically and chemically?

• If compatible what is the impact on the fire performance of the resulting mixture?

• If compatible and foam concentrates are mixed does the resulting mixture comply with the post 4th July 2020 PFOA levels required in Regulation (EU) 2017/1000?

Note:
This document talks to the issues relating to compliance with Commission Regulation 2017/1000 in terms of the supply of foam concentrate. We are not addressing the end users’ responsibilities in terms of a dispersion of foam to the environment in the event of their operational use or inadvertent use of their firefighting foam systems etc. Neither are we addressing the potential PFAS contamination of existing storage tanks, and discharge systems/devices through their use with PFAS based foams that do not meet the post 4th July 2020 levels of 2017/1000.

DISCLAIMER
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