

Specific information requests

In addition to an opportunity to provide general comments, as outlined above, the consultation includes several specific questions to gather information that is considered to be particularly relevant to the evaluation of the proposal, as follows:

1. Information on the **status of PFAS firefighting foam substitution** (that is not already described in the Annex XV report, annex or appendices), specifically in relation to the following applications:
 - a. Portable fire extinguishers for class B fires;
 - b. Tanks and flammable liquids in the transportation sector (rail and road);
 - c. High-temperature climate conditions within the EU (e.g. climate-change induced heatwaves);
 - d. Availability of sufficient quantities of alternatives for the replacement of stocks.
2. Are the **proposed transitional periods** (see Table 3 and Section 2.8.2 of the Annex XV report) appropriate to implement alternative (PFAS-free) firefighting foams (incl. any time required for additional performance testing and/or adaptation of the fire extinguishing systems/process)? If not, please:
 - a. describe the socioeconomic impacts that would occur after the end of the proposed transitional period(s). Please refer to Annex XVI of REACH for details of elements to consider in an impact assessment;
 - b. describe the socioeconomic impacts that would occur with (i) longer and (ii) shorter transitional periods;
 - c. Provide a justification for the representativeness of the information provided for a particular sector or use in the EU/EEA.
3. Paragraph 3b and 3e of the proposed restriction (see section 2.2.5) details a transitional period of 10 years after entry into force for establishments covered by Directive 2012/18/EU (**Seveso III Directive**; both upper and lower tiers). Are the definitions in this Directive appropriate to identify the industrial installations that require 10 years to transition to alternative (PFAS-free) firefighting foams? If not, how else could such a distinction be practically made at a European level?
4. Is the **order of magnitude of the cost estimates** (see Tables 4 and 5) appropriate? If not, please:
 - a. justify different assumptions (see Tables 12 and 13) and cost estimations per cost category and/or industry sector/use and
 - b. Provide a justification for the representativeness of the information provided for a particular sector or use in the EU/EEA.
5. Any robust, representative, data on the **costs to implement operational conditions and risk management measures to minimise emissions** to the environment and direct and indirect exposures to humans of PFASs in firefighting foams during the transitional periods (i.e. the requirements of paragraph 4b of the proposed restriction)? In the absence of more specific information, the Dossier Submitter estimated these costs based on the disposal costs of PFAS-containing foams used for training and incidents (€1 000 per tonne, -50% as a lower bound and +100% as an upper bound, see also Wood et al. (2020), Table 8.14 on p. 163). If you have more appropriate information, please
 - a. justify different assumptions and cost estimations per cost category and/or industry sector/use and

- b. Provide a justification for the representativeness of the information provided for a particular sector or use in the EU/EEA.
6. Any specific information on **the costs of treatment** (e.g. reverse osmosis) that is effective at removing PFASs from drinking water?
 7. The Dossier Submitter estimated that there are 15 million **hand-held fire extinguishers containing PFASs in the EU** (see 2.3.2). Are you aware of any specific information at EU or national level that would allow a refinement of this estimate? If so, please provide a justification for the representativeness of the information provided.
 8. Any robust, representative, **data that challenges the assumption that fire-water containing PFASs is currently sent to either on-site or urban waste water treatment plants**? If so, how do they relate to Appendix 2 and 3?
 9. Any robust, representative, data regarding the **cost and available capacity of incinerating the retired foam stock and the PFAS-containing fire-water** collected in accordance with paragraph 4d and 5 of the restriction proposal?
 10. The conditions of the proposed restriction include **a clause on the labelling of firefighting foam concentrates containing non-PFAS organofluorine substances** (column 2, paragraph 7 of the proposed restriction) to enable enforcement without requiring targeted analysis of all potential PFASs. Would this requirement facilitate enforcement? Could it be improved?

Commented [REDACTED] and [REDACTED]
do you have specific information on drinking water treatment that could be of use?

Commented [PL(SPFV2): A.2.3.2. Estimate of use in fire extinguishers]
Wood et al. (2020) identified three different sources for the number of fire extinguishers using PFAS-based firefighting foam that are in service in the EU, ranging from 15 million (Eurofeu, 2019a) to 90 million (extrapolation from German data). Considering that the latter number is a high-level estimate based on extrapolation from German data and expert judgement, Eurofeu's estimate of 15 million fire extinguishers is likely more accurate and is taken forward by the Dossier Submitter in this assessment. Based on Eurofeu data, it was estimated that the total annual use of PFAS-based firefighting foams in the EU is at least 14 000 tonnes but it could be up to around 20 000 tonnes. Figure A.1 (also based on Eurofeu data) estimates the share of ready-for-use products at 1%, so the annual tonnage of ready-for-use products is around 140-200 tonnes.

Commented [REDACTED] and [REDACTED]
do you have any information on this?

Commented [REDACTED], [REDACTED], [REDACTED], [REDACTED] and [REDACTED] do you have information on incineration costs?

Commented [PL(SPFV5): Paragraph 4.d]
Ensure that the collected PFAS-containing waste with a concentration of PFASs above the one mentioned in paragraph 2 shall be handled for adequate treatment. The treatment shall minimise releases of PFASs to environmental compartments as far as technically and practically possible and shall exclude municipal wastewater treatment, irrespective of any pre-treatment. For each event of foam use or accidental spillage or leakage, proof of appropriate management and disposal of the foam concentrates, water added foams and fire run-off waters shall be documented and kept available for enforcement authorities.

Paragraph 5
5. From six month after entry into force, firefighting foam concentrates containing PFASs above the threshold indicated in paragraph 1 which are held in stock and need to be disposed of shall be handled for adequate treatment. The treatment shall minimise releases of PFASs to environmental

... [1]

Commented [REDACTED]: Paragraph 7:
[From six months after entry into force, packaging of firefighting foam concentrates placed on the market containing organofluorine substances above 1 ppm, but where the concentration of total PFASs is not greater than 1 ppm, shall be labelled:
"Contains non-PFAS organofluorine substances with a total organofluorine concentration of (insert concentration) ppm". This information shall be

... [2]

Paragraph 4.d

Ensure that the collected PFAS-containing waste with a concentration of PFASs above the one mentioned in paragraph 2 shall be handled for adequate treatment. The treatment shall minimise releases of PFASs to environmental compartments as far as technically and practically possible and shall exclude municipal wastewater treatment, irrespective of any pre-treatment. For each event of foam use or accidental spillage or leakage, proof of appropriate management and disposal of the foam concentrates, water added foams and fire run-off waters shall be documented and kept available for enforcement authorities.

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Paragraph 7:

[From six months after entry into force, packaging of firefighting foam concentrates placed on the market containing organofluorine substances above 1 ppm, but where the concentration of total

PFASs is not greater than 1 ppm, shall be labelled:

“Contains non-PFAS organofluorine substances with a total organofluorine concentration of (insert concentration) ppm” . This information shall be displayed in a clear and visible manner in the official language(s) of the Member State(s) where the firefighting foam concentrate is placed on the market, unless the Member State(s) concerned provide(s) otherwise.]