**General comments and answers to specific information requests**

**Specific information requests:**

1. SEAC would welcome further information on the availability, technical feasibility and implementability of alternative PFAS-free firefighting foams in the following sectors/activities:
2. offshore exploration and exploitation,
3. transport of flammable liquids in pipelines,
4. (bulk) transport of flammable liquids on rail and road,
5. Temporary storage directly related to transportation of dangerous substances,
6. “Neighbouring establishments” as defined by Seveso Directive (an establishment that is located in such proximity to another establishment so as to increase the risk or consequences of a major accident)

Based on the information received in the consultation on the Annex XV report, SEAC assessed whether these sectors/activities in some cases may be affected by similar substitution concerns as those justifying a longer transitional period for installations covered by the Seveso Directive. However, so far, SEAC could not identify evidence that sufficiently justifies the recommendation of a 10-year transitional period. In order to be considered, submitted information should contain all of the following:

* Detailed description of the activity, use, location and sector that is considered deserving of a longer transitional period and, where possible, representative examples and case descriptions,
* Well-justified information on the fire risk, the current performance difference between PFAS-containing and PFAS-free foams in practical application (taking into account recent test results) and the reasons for any identified performance difference (e.g. lacking functionality, etc.),
* Volume of PFAS-containing foams used in the relevant context per year,
* Description of the steps that need to be taken in a successful transition to an alternative with durations for each step,
* List of advantages and disadvantages of a 5-year transitional period,
* Difference in the cost of the transition (comparing the scenarios of the 5-year transitional period and 10-year transitional period).

1. SEAC would welcome additional corroborated and preferrable non-confidential estimates of the additional number of Portable Fire Extinguishers (PFE) that needs to be manufactured to allow the substitution of existing PFAS-containing PFE already present in EU facilities within 5 years after entry into force of the restriction (which is estimated to be in 2024). Submitted information should focus on the following:

* Information on the amount of existing PFE that have separate containment for the PFAS-containing foam concentrate and would allow for isolation of the corresponding container/bag, thus avoiding the need for complete replacement,
* Information on the amount of non-foam PFE that can be supplied and would be allowed for use instead of existing PFAS-containing PFE,
* Information on the amount of PFAS-free PFE (foam and non-foam) that can be imported to the EU to facilitate a timely phase out of PFAS-containing PFE within 5 years,
* A detailed justification of why manufacturers cannot supply enough quantity of PFAS-free PFE for replacement of existing PFAS-containing ones within 5 years (should that be the opinion of the stakeholder providing the information),
* Information on the manufacturing capacity of PFAS-free PFE (incl. potential overcapacity or standstill times, stocks, supply chain issues, etc.),
* Information on the possibility to revise (national) building codes currently favouring the installation of PFAS-containing PFE even in locations where no class-B fire is expected.

SEAC notes that many factors (including the above-mentioned, but potentially more) need to be considered to come to a reliable conclusion. Without knowledge on certain open issues, there may not be a basis for justifying a longer transitional period.

1. SEAC would welcome additional information on the earliest time point at which the placing on the EU market of new PFAS-containing PFE can be abandoned. In order to justify their answer, comment submitters are expected to provide detailed information on the current number and percentage of PFE sales still relying on PFAS-containing foam agents and the steps required to cease the sale of new PFAS-containing PFE (with durations for each step). SEAC notes that based on currently available information many suppliers of PFE have considerable increased their offer of PFAS-free PFE both in terms of volume and diversity of PFE. It is also noted that customers are being increasingly informed about anticipated regulatory measures to avoid that uninformed buyers are supplied with products that will require premature replacement in the foreseeable future. SEAC considers that well-justified arguments will be needed to justify the continued placing on the market of new PFAS-containing PFE is required given that PFAS-free alternatives appear to generally exist.
2. SEAC would welcome further input on the limit values for PFASs in firefighting foams. To be considered, a proposal of a higher limit value must include well-justified information on

* Advantages and disadvantages related to the higher limit value,
* Costs savings achievable by the proposed increase of the limit value as compared to the limit value of 1 mg/l,

SEAC would also welcome input regarding the type of guidance required on sampling and other practicalities to better enable users to adhere to limit values.

1. SEAC would welcome further well-justified and preferably non-confidential information on the ability of foam users in the defence sector to attain exemptions in line with Art. 2(3) REACH if needed after a 5-year transitional period. This includes representative information on the timeline and costs of relevant exemption procedures as well as further detail on the advantages and disadvantages compared to an extended transitional period.
2. SEAC would welcome further information on the availability, technical feasibility and implementability of alternative PFAS-free firefighting foams in the marine sector and more specifically the transport of flammable liquids in bulk via ships. Based on the information received in the consultation on the Annex XV report, SEAC assessed whether a transitional period longer than 3 years is justified. However, so far, SEAC could not identify evidence that sufficiently supports the recommendation of a longer transitional period. In order to be considered, submitted information should contain all of the following:

* Detailed description of the use that is considered deserving of a longer transitional period and, where possible, representative examples and case descriptions,
* Well-justified information on the fire risk, the current performance difference between PFAS-containing and PFAS-free foams in practical application (taking into account recent test results) and the reasons for any identified performance difference (e.g. lacking functionality, etc.),
* Volume of PFAS-containing foams used in the relevant context per year,
* Description of the steps that need to be taken in a successful transition to an alternative with durations for each step,
* The concrete length of a transitional period that is considered required and appropriate,
* List of advantages and disadvantages of a 3-year transitional period,
* Difference in the cost of the transition (comparing the scenarios of the 3-year transitional period and a specified longer transitional period).

1. For municipal fire brigades, in the consultation on the Annex XV Dossier, some stakeholders claimed that an 18-month transitional period is too short, in particular considering the need for training and gaining practical experience during emergencies. Transitional periods of 8 or 10 years were requested but no substantiation was provided. Therefore, an extended transitional period does not currently seem sufficiently justified, also considering that municipal fire services will benefit from a longer transitional period when they have to fight a fire at Seveso establishments. If stakeholders still consider it relevant, SEAC would require concrete information to assess the option of setting a longer transitional period of a specific length, with thorough justification of the requested length where non-Seveso sites are concerned. In order to be considered, submitted information should contain all of the following:

* Detailed description of the use that is considered deserving of a longer transitional period and, where possible, representative examples and case descriptions,
* Well-justified information on the fire risk, the current performance difference between PFAS-containing and PFAS-free foams in practical application (taking into account recent test results) and the reasons for any identified performance difference (e.g. lacking functionality, etc.),
* Volume of PFAS-containing foams used in the relevant context per year,
* Description of the steps that need to be taken in a successful transition to an alternative with durations for each step,
* The concrete length of a transitional period that is considered required and appropriate,
* List of advantages and disadvantages of a specified longer transitional period,
* Difference in the cost of the transition (comparing the scenarios of the 18-month transitional period and a specified longer transitional period).

1. SEAC would welcome further well-justified information regarding a potential reporting requirement on the sales of PFAS-containing firefighting foams, by foam formulators during the transitional periods. In particular, SEAC welcomes information regarding the number of formulators that would be affected and the cost and practicability of such a reporting scheme.

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| 1170 | Date/Time:  2023/04/11 15:49  Type:  BehalfOfAnOrganisation  Org. type:  International organisation  Org. name:  Firexo Ltd  Org. country:  United Kingdom | General Comments:  Dear Sirs,  Further to my previous communication it remains clear that suitable replacements for PFAS remain very much in their infancy and quite frankly current "replacements" simply cannot match the performance of PFAS-based surfactants in firefighting mixtures. As a consequence, products based on alternative surfactants which lack the surface tension control afforded by carbon-fluorine bonds lead to the requirements for substantially larger amounts of firefighting liquids being required to put out class B fires. This creates further problems downstream in that larger, more cumbersome extinguishers are required which also heavier and as a consequence can lead to delay in deployment in the event of a fire. The impact of such is clearly obvious in terms of threat to life and property.  We ourselves have undertaken numerous tests with a plethora of different alternative surfactants and what is quite clear is whilst we might initially see complete covering of a test fire by a blanket of foam this rapidly fails in that the foam shrinks (due to heating) and re-exposure of the test flammable agent to the atmosphere and consequently re-ignition. We have some way to go notably in-house, but in terms of future R&D leading to more effective surfactants which have properties closer in effectiveness to PFAS. It is clear though, nothing will replace the effectiveness that carbon-fluorine bonds bring to surfactant technology.  We appreciate the long term issues to health and the environment that forever chemicals bring. However, more time is needed in terms of R&D here.  Thank you and regards,  Alistair Miller |

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| **1172** | **Date/Time:**  2023/04/28 07:29  **Type:**  BehalfOfAnOrganisation  **Org. type:**  National Authority  **Org. name:**  <redacted>  **Org. country:**  Germany  **Company name confidential:**  Yes  **Attachment:**  <redacted>  **Privacy statement:**  defence and military matters | **General Comments:**  Please see attached confidential letter. |
| **Specific information 5:**  Please see attached confidential letter. |

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| **1179** | **Date/Time:**  2023/05/04 17:03  **Type:**  BehalfOfAnOrganisation  **Org. type:**  Industry or trade association  **Org. name:**  Offshore Energies UK  **Org. country:**  United Kingdom | **General Comments:**  OEUK is the leading representative body for the UK offshore energy industries. It is a not-for-profit organisation with a pedigree stretching back almost half a century. We have over 400 members across a broad spectrum of energy sectors and the wider supply chain. Within our core membership are oil and gas producers with oil and gas installations within the UK are vital for the economic prosperity of the UK, providing energy security hydrocarbon energy provides 75% of the UK need. Impacts on the availability of individual installations has a direct impact on the spot price of North Sea Brent Blend. The installations are typically located 75 – 200km from the mainland. Fires offshore present one of the largest potential major accident hazards that threaten the lives of the persnooel onboard. On any installation there can be 75 – 150 people at any one time. A total of 20,000 people are offshore at any time. In the event of a serious fire rescue from these vessels would require muster to lifeboats, life rafts, and individuals entering the North Sea. The Piper Alpha disaster in 1988 following an explosion and fire resulted in the death of 167 personnel and remains a critical deriver for minimising the risk to workers offshore. OEUK recognise the importance of driving forward improved environmental standards and encourage members to pick the safest products both for people and the environment. However in the case of AFFF LF alternatives we believe that there is insufficient performance demonstration to allow oil and gas installations to transition to 3F foams in a 5 year timescale without inadvertently increasing the risk to the offshore workforce. Equally the cost associated with the change over in the specific environment in which the offshore installations are located are unreasonable, especially at enhanced timescales. Oil and Gas installations, in indeed all offshore installations, are more deserving of a 10 year transition period that the Seveso III designated facilities already identified for an extended transition. We reach our opinion specifically for the following reasons: 1. UKCS predominantly use the fire fighting foam testing standard UL162 for AFFF LF C6 in which the foam is tested under critical application rates at low temperature and in sea water. To our knowledge no alternative AFFF LF C6 foam has yet been accredited to the existing UL162 standard. Similarly, fluorine free foams referred to as F3 LF to our knowledge, have not yet passed low temperature, sea water UL162 accreditation. In addition, recently the US Navy issued a statement indicating that F3 foams for application in sea water are less effective i.e.. Unsuitable and therefore come under the heading “THIS PRODUCT IS NOT AUTHORISED FOR US NAVY SHIP BOARD USE”. 2. Swedish Research (Dahlbohm, 2022) also found poor seawater performance with F3 foams. 3. F3 LF Users may experience viscosity issues especially at low temperatures. 4. F3 foams have compatibility issues in that they cannot be mixed with any other F3 foam so negating the use of NFPA11 to assist in mutual aid issues. 5. Certain studies show that dry powder chemicals can attack several available F3s. 6. Because of the tenacious way that fluorosurfactants can adhere to storage tanks, pipework and equipment when changing over to F3 cost cleaning can be expensive, if not potentially unjustifiable, when existing equipment is integral to offshore structures and not easily removed, cleaned or replaced. 7. The retro-fit required to enable F3 foams on established late life, and mid-life assets will be costly and disruptive for operators of oil and gas installations. Green-field design opportunities are not available to established oil and gas installations. 8. There is little data on the effectiveness of F3 foams used within non-aspirated systems especially against wind, when sea water is used, i.e.. Risk of failure relatively high. 9. F3 foams are unlikely to be compatible, therefore once an installation changes to F3 there would be significant supply chain risk. is important to note that F3 foams cannot be assessed as being compatible. 10. reduced fire safety performance of F3 products is of greater impact where the performance of the F3 foam is already marginal due to sea water and low temperatures. 11. There is greater risk to personnel living and working on isolated offshore installations of the escalation of fire events than at Seveso III sites. Therefore should be treated equally within the rules. SEAC considered that review of the substitutional status before the end of the transitional period for Seveso establishments. Its to be noted that Seveso III establishments will require a review after 10 years i.e.. To ensure that alternatives are not available. In the case of AFFF the review period is 5 years and it has to be said if its going to take 10 years to find an alternative to Seveso III its likely to take a similar time for AFFF derogated for only 5 years. 11. SEAC notes that based upon information on Annex XV in its report, the volumes of surfactants needed for alternative F3 foams will be greater than those of PFAS surfactants. Also the demanded volume of fluorine-free foam to extinguish a fire may be greater (up to a double volume is reflected in the Annex to the Annex XV report) than the corresponding volume of a PFAS based so requiring additional storage space, extra foam and equipment, extra space and foam weight is not normally easily available on existing platforms. 12. During previous consultations several stakeholders expressed that “the scope of the Seveso III Directive does not correctly match the scope of sectors that could face major challenges with alternatives (temporary storage and transportation of fuels, offshore oil and petroleum).”  OEUK make the following request: • A 10 year period transitional period for offshore oil and gas industry (not covered by the Seveso III definition) • A 10 year transitional period for the use of AFFF in the offshore exploration and exploitation of minerals, including hydrocarbons • A 10 year transitional period for transportation of flammable liquids either in pipelines or by road, rail or ship. • A derogation for offshore helipads. • A request of a higher limit value of 50 ppm for offshore equipment already installed. |
| **Specific information 1:**  OEUK is the leading representative body for the UK offshore energy industries. It is a not-for-profit organisation with a pedigree stretching back almost half a century. We have over 400 members across a broad spectrum of energy sectors and the wider supply chain. Within our core membership are oil and gas producers with oil and gas installations within the UK are vital for the economic prosperity of the UK, providing energy security hydrocarbon energy provides 75% of the UK need. Impacts on the availability of individual installations has a direct impact on the spot price of North Sea Brent Blend. The installations are typically located 75 – 200km from the mainland. Fires offshore present one of the largest potential major accident hazards that threaten the lives of the persnooel onboard. On any installation there can be 75 – 150 people at any one time. A total of 20,000 people are offshore at any time. In the event of a serious fire rescue from these vessels would require muster to lifeboats, life rafts, and individuals entering the North Sea. The Piper Alpha disaster in 1988 following an explosion and fire resulted in the death of 167 personnel and remains a critical deriver for minimising the risk to workers offshore. OEUK recognise the importance of driving forward improved environmental standards and encourage members to pick the safest products both for people and the environment. However in the case of AFFF LF alternatives we believe that there is insufficient performance demonstration to allow oil and gas installations to transition to 3F foams in a 5 year timescale without inadvertently increasing the risk to the offshore workforce. Equally the cost associated with the change over in the specific environment in which the offshore installations are located are unreasonable, especially at enhanced timescales. Oil and Gas installations, in indeed all offshore installations, are more deserving of a 10 year transition period that the Seveso III designated facilities already identified for an extended transition. We reach our opinion specifically for the following reasons: 1. UKCS predominantly use the fire fighting foam testing standard UL162 for AFFF LF C6 in which the foam is tested under critical application rates at low temperature and in sea water. To our knowledge no alternative AFFF LF C6 foam has yet been accredited to the existing UL162 standard. Similarly, fluorine free foams referred to as F3 LF to our knowledge, have not yet passed low temperature, sea water UL162 accreditation. In addition, recently the US Navy issued a statement indicating that F3 foams for application in sea water are less effective i.e.. Unsuitable and therefore come under the heading “THIS PRODUCT IS NOT AUTHORISED FOR US NAVY SHIP BOARD USE”. 2. 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| **1181** | **Date/Time:**  2023/05/08 16:47  **Type:**  BehalfOfAnOrganisation  **Org. type:**  National NGO  **Org. name:**  bvfa - Bundesverband Technischer Brandschutz e.V.  **Org. country:**  Germany  **Attachment:** | **General Comments:**  see attachment |
| **Specific information 2:**  see attachment |
| **Specific information 3:**  see attachment |
| **Specific information 4:**  see attachment |
| **Specific information 5:**  see attachment |

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| **1183** | **Date/Time:**  2023/05/08 18:06  **Type:**  BehalfOfAnOrganisation  **Org. type:**  Company  **Org. name:**  <redacted>  **Org. country:**  Germany  **Company name confidential:**  Yes | **General Comments:**  Dear SEAC-Team,  we are a leading manufacturer and distributor of portable fire extinguishers (PFE) on the German market. As this market is using an increasing percentage foam-extinguishers over the past 25 years, a lot of products already placed on the market are affected by the restriction. The estimations range from 12-15 million pieces that need to be treated or replaced. Replacing this high amount of units within the proposed timeframes will be very challenging for suppliers and customers, but it seems manageable.  As SEAC asks about the possibility of cleaning the existing PFE we must stand with the point that considering the low thresholds a safe cleaning of any PFE that held a foam-mixture containing PFAS seems not possible. There is an option for cartridge-based PFEs: If a cartridge-based PFE (holding the PFAS-containing concentrated agent in a closed cartridge) was (provenly) not used it might be possible to change it into a PFAS-free PFE. But this would mean to exchange more than just the cartridge with the agent (e.g. nozzle, printing, and more). The converted PFE needs to have full approval (EN3-7) and therefore this is not an option for most of the existing units. Maybe 10-15 % can be changed into PFAS-free units and held in service, but that will not erase the need of rising the production capacity.  We fully support the restriction of PFAS in firefighting foams as was proved that effective alternatives are at hand and we will be able to serve the market without fluorinated foams in the future. Giving 6 months after entry into force as a deadline for any constituent of a firefighting foam in portable fire extinguishers or PFE’s itself seems therefore reasonable.  Considering the vast amount of units affected we highly appreciate the change of the timeline to 5 years as proposed in the final draft and the exemptions stated for portable fire extinguishers. As it is clear that production capacities all over Europe need to be increased during the transition period, investments must be made by the manufacturing companies. The supply chains will be stressed and it is uncertain how soon the end-users will decide whether to switch to a PFAS-free alternative or to stick with an old foam-extinguisher already placed in their facilities. In order to plan these investments and to keep the transition in reach we strongly recommend to stick to the 5 year–transition after entry into force. Longer transition period will slow down the substitution process, shorter timeframes may result in chaotic conditions in supplying and treatment of the upcoming waste.  The German manufacturers of portable fire extinguishers and their suppliers of fire fighting foams have during the last two years been very actively inventing alternatives to PFAS-based agents and products and already started the transition toward PFAS-free firefighting equipment in the German market. The underlining of the short period of 6 months after entrying into force for the placing on the market of any PFAS-containing extinguishing agent or extinguishers itself seems therefore to be reasonable, although not for every risk a one-to-one alternative has been found. We are optimistic to invent PFE with frostproof foams in the upcoming 12-18 months, wet agents for polar fluids seem yet to be challenging. It might not be possible to switch to PFAS-free agents to fight these alcohol-based fluids within the next 18 months. This indeed only applies to a very small part of the areas of application and should not justify a general extension of deadlines. It might yet be possible to find longer transition periods of 12-18 months just for the special use-case of burning alcoholic liquids.  Conclusion: It is necessary to eliminate uncertainties concerning the relevant, overlapping restriction proposals (PFHxA, PFAS in FFF) and align the limits and transition periods. Clear guidelines for thresholds and methods of measurement will help industry and customers to adapt to the process and the exchange or conversion of all PFAS-contaminated PFEs can be done within the 5 years of transition. Any longer transition period and therefore further delay would increase the risk of hesitation and counteract the possibility to phase out per- and polyfluoroalkyl substances in fire fighting foams. We would recommend and appreciate the confirmation of the now published conditions and timeframes of the restriction in order to speed up the process of the transition. We need to support the change to PFAS-free foams on every level are looking forward to the publishing of the final restriction under REACH. |
| **Specific information 2:**  - From our point of view, about 40-50% of the foam extinguishers use seperate containments. About 25-30% of these might be procesed into PFAS-free extinguishers and thus be held in service. - revising standards would be a long-time goal, but will not be possible within such a short period of time. - When foam was chosen, it might be possible to use another agent in 10-20% of the use-cases. It is highly likely that PFAS-foam PFE will be substituted by PFAS-free-foam-PFE. Wether it contains foam or not, the unit has to be produced anyway. - Import of products cannot be a solution - |
| **Specific information 3:**  6 month is a good lenght of the transition period for placing on the market |
| **Specific information 4:**  We are not sure how to measure the limit. Please advise! |

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| **1189** | **Date/Time:**  2023/05/11 13:06  **Type:**  BehalfOfAnOrganisation  **Org. type:**  Industry or trade association  **Org. name:**  Eurofeu  **Org. country:**  Germany  **Attachment:**    <redacted>  **Privacy statement:**  The information in the attached file contains company confidential business data. | **General Comments:**  1 General Comments: As stated earlier fluorine free firefighting foam agents (F3s) are known for a long time. However, the new generation of high performing foam agents designed to be used in AFFF-like applications and with an AFFF-like level of performance are not just step in products but a new class of foam. Their optimal, hence efficient use on fire requires a much deeper understanding of the fire, the fuels and all parameters of foam generation, -quality and -application than was ever needed before. A lot of new F3s have come on the market and lots of work was and still is invested to close out the white spots on the landscape of knowledge and experience in fighting fires with them. This has enabled the industry to respond to the need for fluorine free foam agents quickly and efficiently. Still, on filling those gaps, also new challenges and questions appear which require some flexibility to not sacrifice a given level of fire safety for a rushed transition. This flexibility could be established for instance by a review clause in the restriction as was proposed by rapporteurs in SEAC-58. Or by considering the permitting process as proposed by EUROFEU during the drafting of the restriction and again per the last email (Fr 10.03.2023, 16:15) by the chair of FFA to the SEAC secretariat as the RMO for the remaining white spots (see attached as annex to this document). That said and in covering also previous statements EUROFEU urges the decision-making parties in the process of PFAS restrictions (the current and previous ones including those presently not in force) to  1. Make publicly clear that the PFAS in firefighting foams restriction is the final one and the PFHxA- restriction process will not be pursued any more: a. From previous restrictions we know that the plurality of limits, chemicals affected, timelines for derogations etc. makes it extremely difficult for users to comply. b. The PFHxA restriction proposal holds provisions which are partly impracticable and will cause issues c. The lack of such a clear statement (unfortunately also fueled by comments from EU officials that “PFHxA is not off the table yet”) creates a lot of misunderstandings and a high level of uncertainty d. If PFHxA enters into force over 99% of all fluorinated firefighting foam agents on the market today will be affected with timelines we have proven cannot work. This renders the PFAS in foams-restriction and all its thoughtful considerations almost meaningless.  2. Give advice on legally acceptable analytical methods and clarify on the corresponding limiting value/-s: a. Laws must be enforceable, and the affected community must be able to comply and prove compliance in any case of claim. This requires a functioning analytical process to detect how much PFAS is in a given sample matrix or if there is none. b. “PFAS” as a big group of chemicals cannot be analyzed for in a way that provides X ppb PFAS. An Analyte needs to be defined which is measurable and a limiting value needs to be assigned to it. c. Analytical methods in place vary quite significantly in their results, accuracy and repeatability hence are not safe to provide evidence.  3. Give a legally acceptable definition for the term “fluorine free”: a. Since Fluor-organic compounds are ubiquitously distributed in the environment and across technical products including chemical raw materials environment a level of zero PFAS may be very difficult to achieve. b. Analytics to date is not able to detect a zero content in any matrix and even though numbers for LoQ are getting lower they are still always above zero. c. The legal interpretation of the restriction is on courts and lawyers. We have evidence that both are reading and understanding “fluorine free” as fully free of any Fluor-organic compounds hence zero content.  4. Make clear that firefighting foam agents are not subject to the restriction in preparation on the general use of PFAS (U-PFAS restriction): Although it may not be subject to this restriction, we still want to point out that at present it is only a comment in the background document to the draft of the U-PFAS restriction that firefighting foam agents are not subject to the U-PFAS restriction but are covered by another legislation. However, at the end of the law-making process it is the legal text defining the baseline of interpretation and it would in our view help, to put a clause in that clearly excludes firefighting foams from the U-PFAS.  5. Consider defining waste disposal procedures and advise on acceptable disposal techniques: We do see a considerable increase of transition projects coming on in the industry and municipal fire brigades. The question how and where to dispose of the AFFF waste in a safely and responsible manner is coming up in every single one. This question should be answered by the EU Commission/ECHA either in the legal text or in a guidance document to avoid waste tourism (which currently is already happening) and unfortunate disposals. The statement in RAC and SEAC meetings that incineration at 1100°C may not be sufficient to destroy all PFAS is extremely frustrating and confusing for end users which do want to dispose of the waste safely but don’t seem to be given a way how to do so. |
| **Specific information 1:**  Question 1: offshore installations To date no PFAS-free foam concentrates seem to be available providing both alcohol resistance and high freeze protection level (lowest temperature for use -10°C or less). Particularly the high level of freeze protection is required in offshore installations in the northern areas of the planet (as well as in large cold storage warehouses). |
| **Specific information 2:**  Question 2: Portable Fire Extinguishers (PFEs) EUROFEU Portable Fire Extinguisher Section (PFES) has already in prior communication submitted facts and figures to support ECHA’s work on a restriction on PFAS in firefighting foams, which also applies to firefighting extinguishers (products: mobile-/handheld portable extinguishers/aerosol generators) summarized as - portable fire extinguishers - PFEs- in this document. The term stakeholders is further used to summarize affected groups such as manufacturers, distributors and service providers for PFEs. With the following EUROFEU strives to clarify and explain facts that shall be considered/clarified/explained with further details to adjust SEAC opinion to support a workable PFAS transition plan for fire extinguishers (PFE), which ensures to maintain the current level of fire protection in the various areas protected with PFEs. 2.2.1 The term “USED” in the regulation (“shall not be used”) in our view needs clarification to prevent misunderstanding in the specific context of PFEs: it does not address the normal operation of a PFE in its intended function to fight a fire: as soon as a PFE is manufactured (including filling with its firefighting agent) and installed, it may be used – operated - in case of fire. It could in addition be useful to know that only around 1% of the PFEs in service are activated/operated on a fire during their life, which corresponds to a very low consumption of extinguishing agent (a PFE containing PFAS has a content of 2 to 5 g of organic fluorine). 2.2.2 Necessary steps and their time demand for a successful transition - the development of a fluorine free firefighting agent (F3) capable to meet minimum fire ratings claimed in EN standards can take typically several years. Some are now available on the market. - develop PFE models/ranges that are capable to effectively work with F3 (which typically takes additional one to 3 years after when F3 has become available). Some PFE models are nowadays progressively becoming available on the market - testing and certification of new PFE-models with F3 in accredited labs and approved by certifying bodies: takes typically between 6 to 12 months, however currently increasing due to drastically raised demand for new evaluation by labs, who cannot run all tests resulting from the sudden increasing demand at the same time, and approvals by certifying bodies. The majority of the EU countries require by law the prior approval/certification against European standards by an accredited third party/certifying body including manufacturing audits and surveillance prior to the placing of PFEs on the market. 2.2.3 List of advantages and disadvantages of a 5-year transitional period compared to 10 years: Advantages: in principle, the shorter the transition period is, the better it is in terms of reduction of releases of PFAS. But it should be workable and executable for all parts of the supply chain, including waste treatment providers, to prevent unwanted or wild releases if economically or technically non-viable. Disadvantages: a short period is anticipating the usual PFE replacement resulting from their average normal product life shell (12 years), with a temporarily but strongly increasing demand for PFEs. This extra volume of PFEs affects all parties of the supply chain and thus creates high pressure to get enough units made. Consequently, this would trigger significant investment in additional production capacities which after the replacement campaign are superfluous. A too ambitious time line for the transition will lead to importing manufacturing of PFEs from outside the EU with the effect to destroying industrial capacities currently located into EU and affecting the grown stable competition in the EU by moving business away from small local manufacturers to big international groups owning manufacturing sites also outside of EU. But if the transition target is set to be workable by EU-manufacturers the effect is to employ extra capacity of EU industries creating business within EU. This is the reason why the figure should be carefully analyzed, with situations clearly different from place to place within EU (in term of supply chains models and in term of PFEs type mix) The numerical impact / extra industrial capacity needs is detailed in a table later in the doc, on the basis of a re-examination of the existing figures. 2.2.4 PFEs that have separate containment for the PFAS-containing foam concentrate No available statistics are identifying whether the PFAS in existing PFEs containing PFAS is in “premix” or in a separate foam concentrate container. It might represent half of the quantity. In any case, should (or when) PFAS (will) be banned, all PFEs containing PFAS need replacement, and likely replacement of the complete PFE unit, not only the extinguishing media. The specific matter is whether a separate foam concentrate container would impact the urgency of the PFE replacement: separate PFAS containment is facilitating the waste collection, storage and treatment and thus prevents unwanted or accidental/wild/hidden PFAS releases. Such particular design would accordingly justify a longer transition period for concerned products. Note: the option to “only” replace the extinguishing media in a PFE from PFAS containing by F3 is not valid, even when PFAS is in a separate foam concentrate container: approvals are fully different. Consequently, the whole PFE unit shall be replaced. 2.2.5 Non-foam PFE that can be supplied and would be allowed for use instead of existing PFAS- containing PFE: In most EU countries, it is regulated by the law which type of PFE using which extinguishing agent (powder or CO2 or water based/foam) shall be used for what application/market segment (industry; transport; offices, etc.). Thus, allowing for an interchange of foam-PFEs with other PFEs containing other types of firefighting agents would require a Union-wide alignment of local laws across all member states, which is highly unlikely and would take a very long time. Additionally, national authorities involved in the law making may not be at the same level of understanding of the PFAS situation compared to EU authorities which could jeopardize the need for a strong EU regulation. A second and even more important point is in the fact that other extinguishing agents in many cases are technically not applicable in the environment a foam portable is installed (e.g. dry chemical powders have limitations to what kind of buildings/use-environments that are applicable). For these reasons the proposal to consider PFEs containing other types of firefighting agents to replace foam-PFEs simply does not work, because it would conflict with existing regulations. 2.2.6 Importing PFAS-free PFE (foam and non-foam) from outside the EU to facilitate a quicker phase out of PFAS-containing PFE within 5 years: It clearly cannot be the aim of EU authorities to seriously consider relocating the sourcing of European PFEs to outside of the EU. The EU’s production capacity for PFEs including a realistic growth (see below) will not be sufficient to manufacture enough PFE units in the proposed 5 years’ time frame to replace all foam PFEs which need to be replaced. Hence the only alternative is to extend the transition period up to at least 7 years (see next paragraph). 2.2.7 Justification of why manufacturers cannot supply enough quantity of PFAS-free PFE for replacement of existing PFAS-containing ones within 5 years It is agreed amongst our members that any increase of production capacity above of 20% would involve major investments in construction, machinery and manpower for only a short term. Based on the figures provided earlier, the proposed 5 years transition period is representing for some EU countries where significant EU industries are located a temporary production increase of around 70% ! [36 % in average within all EU countries]. The gap is definitely not manageable. Now, revisiting the industrial impact data, a transition period of 7 years instead of 5 years could eventually be envisaged (7 years would mean a temporary capacity increase of 36 % for concerned local industry compared to the 70% raise to accomplish a 5 years transition. (19% in average within all EU countries)), which is already very challenging. EUROFEU submits further data to support this in a confidential table. (EUROFEU\_PubCons\_PFAS-subm\_04-confidential\_Annex\_2-20230510.pdf) Moreover, considering the very small quantity of PFEs that are really operated to fight on fire before their end of life (typical estimation around 1%), the impact of the real PFAS final consumption is obviously marginal. 2.2.8 The manufacturing capacity to make PFAS-free PFE is the same as the one of PFAS containing PFE, but this will require: - PFAS-free PFE testing and approval/certifying processes being completed. (see earlier comment on current demand on EU testing labs and certifying bodies exceeding their capacities by far, thus increasing the lead times on tests reports and approvals.) - a complete cleaning or replacement of the manufacturing equipment due to PFAS contamination. 2.2.9 Possibility to revise (national) building codes currently favoring the installation of PFAS- containing PFE even in locations where no class-B fire is expected. The way this question is raised is misleading: current building codes in various EU countries do not promote or favorize PFAS containing PFE but focus on the level of fire efficiency and/or volume of firefighting agent/number of PFE-units needed where risks of multiple fire classes are likely to occur. It is essential to keep fire safety protection at least at its existing level. 2.2.10 Earliest appropriate time point at which the placing on the EU market of new PFAS-containing PFE can be abandoned. We consider a timeline of 18 months for a stop of placing on the market of new PFE-units still containing PFAS being manageable without interfering with a fair global competition amongst manufacturers. A shorter time line (i.e. 6 months after entering into force) would result an interference with the competition situation in the EU to the benefit of non-EU suppliers. However, the local impact of this situation varies from one EU country to another. Some are already marketing a majority of FF PFEs where some others are only starting the process and some are delayed because of the labs and certifiers’ congestion. We consider a balanced position to be a general stop of placing new PFAS-PFEs on the market not less than 12 months after entry into force of the regulation. It is true that many suppliers of PFE have already considerably increased their offer of PFAS-free PFE, however a significant proportion of buyers also consider the need to know the exact content of the published regulation (thresholds, methods for measurements, transition periods durations etc) BEFORE taking decision to change their purchase policy, which is also understandable and cannot be ignored. Point is also that for some economical operators (distributors; re-sellers), price is an argument if not the main argument. 2.2.11 Advantages and disadvantages related to the higher limit value More than the actual limit value itself, the way the PFAS content is analyzed in firefighting foam concentrates or PFAS containing extinguishing media shall be practicable and reliable to enable all stakeholders to prove their compliance. At this time, the fact that no approved method for measuring PFAS in firefighting foam is available is a real delaying factor for stakeholders to anticipate the draft regulation. Moreover, it opens the door for unproven/incorrect statements which have the potential hence could be used for distortion of competition. CONCLUSION: Concluding from the above EUROFEU urges you to consider the following to make the transition successful, as fast as possible and without exporting EU economy to outside EU: 1. Set the general time limit for manufacturing and placing on the market of new PFAS-containing PFEs to 12 months a.e.i.f. of the regulation. 2. Allow a transition period (after any regulation publication) for replacing existing fire extinguishers in service of at least 7 years and consider possible tolerance up to 10 years where the PFAS concentrate is in a dedicated separate container. 3. Propose temporary derogations to be regularly re-evaluated for applications where alternatives for fluorinated firefighting agents are to date still under development, such as: fires of polar solvents and low temperature environments requiring temps below 0°C (up to -30°C). |
| **Specific information 3:**  Earliest appropriate time point at which the placing on the EU market of new PFAS-containing PFE can be abandoned. We consider a timeline of 18 months for a stop of placing on the market of new PFE-units still containing PFAS being manageable without interfering with a fair global competition amongst manufacturers. A shorter time line (i.e. 6 months after entering into force) would result an interference with the competition situation in the EU to the benefit of non-EU suppliers. However, the local impact of this situation varies from one EU country to another. Some are already marketing a majority of FF PFEs where some others are only starting the process and some are delayed because of the labs and certifiers’ congestion. We consider a balanced position to be a general stop of placing new PFAS-PFEs on the market not less than 12 months after entry into force of the regulation. It is true that many suppliers of PFE have already considerably increased their offer of PFAS-free PFE, however a significant proportion of buyers also consider the need to know the exact content of the published regulation (thresholds, methods for measurements, transition periods durations etc) BEFORE taking decision to change their purchase policy, which is also understandable and cannot be ignored. Point is also that for some economical operators (distributors; re-sellers), price is an argument if not the main argument. |

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| **1191** | **Date/Time:**  2023/05/11 13:31  **Type:**  BehalfOfAnOrganisation  **Org. type:**  Industry or trade association  **Org. name:**  Association of Chemical Industry of the Czech Republic  **Org. country:**  Czech Republic  **Attachment:** | **General Comments:**  No general information |
| **Specific information 1:**  Our comments represent the opinion of almost all fire-fighting foams users in the Czech Republic: the Fire Rescue Service of the Czech Republic (FRS CR), firefighters from our member companies and municipal units. It includes Seveso installations and other chemical industry enterprises. SEAC considers that (provided that a review on the availability of alternatives for Seveso installations is carried out before the end of the time-limited derogation for this sector- 10 years) the restriction proposed by the Dossier Submitter on PFAS is the most appropriate Union wide measure to address the identified risks, taking into account the proportionality of its socio-economic benefits to its socio-economic costs as demonstrated in the justification supporting this opinion. We propose the following derogation for Seveso installations: Maintaining the possibility of use of AFFF (C6) type fire-fighting foam concentrates for a minimum of 10 years, starting from the date of ensuring the availability of adequate fluorine-free fire-fighting foam concentrates with similar properties when using existing mobile firefighting equipment or in stable firefighting equipment, i.e. with 1% admixture of fire-fighting foam concentrate and with a similar intensity [l/min/m2] of the supply of extinguishing foam, i.e. a mixture of water 99% + fire-fighting foam concentrate 1%. Justification: 1) There are no adequate alternative 1% fluorine-free (NF) fire-fighting foam concentrates to aqueous film forming foams (AFFF )fire-fighting foam concentrates, which assumes  increasing the admixture of fire-fighting foam concentrate from 1% to 3% and thereby increasing its consumption by 3 times  3-fold increase in stock of fire-fighting foam concentrates  increasing the intensity of the supply of extinguishing water to double [l/min/m2] due to the lower efficiency of the extinguishing foam, see Tables 1 and 2  extention of the fire extinguishing time and the resulting: o risk of fire escalation to other production or storage facilities containing flammable or otherwise dangerous substances o extention of the time of release of dangerous substances arising during fires into the air o Increased risk for  responding firefighters and employees of companies participating in fire extingiushing (e.g. risks: slopover - tank overflow, boilover -boiling over or ejecting the contents of storage tanks in case of flammable liquids creating a hot zone, e.g. crude oil or slop and other risks)  the population in case of fires near human settlements 2) Enormous financial investments necessary for the replacement of mobile firefighting equipment and technical means of the fire rescue service and parts of installed stable firefighting equipment  replacement of pumps for water supply – increase in performance/flow rates, see Table 1 and 2  change of pipe installations for fire water supply due to capacity 2  • change of equipment for dispensing fire-fighting foam concentrates (mixers, pumps) – problematic admixture of fire-fighting foam concentrates with high viscosity  • change of flow lines back to flow lines with a mixing tube due to higher foaming of the water/fire-fighting foam concentrate mixture due to the required foam quality Note: With regard to the above, firefighters from the companies of the chemical industry should not be seen as the environment polluters, but on the contrary, as those who deal with emergencies and reduce the risks of dangerous substance leaks associated with them. Firefighters do not want to be responsible for the risks associated with using less effective fire-fighting foam concentrates. Table 1: Recommended foam flow rates for a fluorine fire-fighting foam concentrate depending on the size of the liquid hydrocarbon reservoir for direct foam application (approximation based on tests performed with a 12m test tank, LPM/m2 = L/min/m2) - see attachment Table 2: Recommended foam flow rates for a fluorine-free fire-fighting foam concentrate depending on the size of the liquid hydrocarbon tank for direct foam application (approximation based on tests carried out with a 12m test tank, LPM/m2 = L/min/m2) - see attachment Note: Source of these data: JOIFF -JCI Webinar Non-Fluorinated Firefighting Foams Large Scale Testing For Tank Fire Applications on 19 th April 2023. |
| **Specific information 4:**  We recommend to increase the allowed concentration limit of total PFASs to equal 3 ppm and determinate TOPA analysis, or a similar method as a decisive method. Justification: In the proposed restriction, it is suggested that the limit of total concentration of PFASs equals to 1 ppm. The limit can be fulfilled theoretically but may not be feasible in some cases due to contamination. From experience of FRS CR, some results indicated total concentration of PFASs in new fluorine-free fire-fighting foam concentrates to be higher than 1 ppm. The total concentration of PFASs according to TOPA analysis was below 3 ppm in these problematic cases. We recommend to specify concentration limit of total PFASs in mg/kg (ppm). Justification: In the proposed restriction, the suggested limit of total concentration of PFASs is expressed in ppm67 units with the explanatory remark “67 Corresponding to 1 000 ppb, or 0.0001% (w/v)“. The need for a closer specification of this unit is based on the fact that PFAS concentration in firefighting foam concentrates are currently reported by testing laboratories both in mg/kg and mg/L. We therefore propose to unify this and ideally use only mg/kg. Unit of ppm is a dimensionless and may correspond to both mg/L and mg/kg. To claim that 1 mg/L is the same as 1 mg/kg, the analysed material would have to have always a density (precisely 1 kg/L), that is not fully applicable for firefighting foam concentrates. Remark 67 mentioned states 0.0001% (w/v) which corresponds to 1 mg/L. In order to report results in w/v or mg/L, firefighting foam concentrates need to be processed using exact volume measurement (pipet). This is not suitable, once the firefighting foam concentrates can be very viscous liquids or even gel-like concentrates. Preparation of sample before analysis requires also dilution of foam concentrate, which often results in emulsions and foaming solutions, thus reproducibility of determination of concentration can be substantially compromised. Hence it is possible and preferable to accurately weigh these samples, and then report the result in mg/kg. This procedure can be used for all types of firefighting foam concentrates, regardless of their properties. For that reason, the ppm unit should be specified in more detail to make it clear that 1ppm = 1 mg/kg |

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| **1192** | **Date/Time:**  2023/05/11 15:31  **Type:**  BehalfOfAnOrganisation  **Org. type:**  Company  **Org. name:**  Oil Technics - Fire Fighting Foam  **Org. country:**  United Kingdom  **Attachment:** | **General Comments:**  The proposed transition period for Offshore installations is too short and needs to be extended, because extensive fire performance evidence confirms that an appropriate performance level of Fluorine Free Foam (F3) alternatives has not been demonstrated. This represents a major challenge for fighting fires offshore without low freeze C6-AFFF-LF foam agents. Premature forcing of F3s offshore would places lives under increased risk of harm while also increasing the risks of catastrophic fires occurring. Particularly when F3s are not suited to seawater use, forceful applications using non-aspirated devices (necessary to combat wind), concurrent use of dry chemical which can quickly attack most F3 foam blankets and winter operating temperatures down to -18C in the North Sea and Baltic. Offshore installations face equivalent if not more severe challenges than many Seveso III sites, which are already recognised as requiring a 10-year extension (with review) by SEAC. Congestion, weight and space constraints require 1% agents with minimal effective application rates and fast action, but there are no existing F3s with relevant international accreditation UL162 in sea water and at temperatures above minus 19C in UKCS industry standard given prevailing low winter temperatures offshore.   Existing integral fire systems are built into the fabric of structures making them difficult, time-consuming and costly to re-engineer and modify, particularly when many offshore installations are scheduled for de-commissioning before 2030. SEAC recognises “Given the potential very high impacts of even a single catastrophic fire on human health and the environment, the proportionality of the proposal is uncertain if risks of such catastrophic fires are not kept as low as they are currently. SEAC recommends in this context to adopt a no-regret strategy; that is, a restriction option that remains justifiable whether catastrophic fires take place or not.” This requires extension to 10 years for all offshore installations, EU-wide. Extensive fire performance evidence and detailed challenges facing these sectors are justified in the attached document forming an integral part of this submission, confirming that leading F3 alternatives lack equivalent functionality, placing lives in potential danger. Proposed transition times should be extended to avoid unnecessary risks to human health and our environment from increased risk of fire damage and potentially increased loss of lives, which is socially and economically unacceptable. |
| **Specific information 1:**  SEE ATTACHMENT |

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| **1196** | **Date/Time:**  2023/05/12 09:06  **Type:**  BehalfOfAnOrganisation  **Org. type:**  Industry or trade association  **Org. name:**  Fire Protection Association Australia  **Org. country:**  Australia  **Attachment:** | **General Comments:**  The proposed transition periods are too short and need to be extended, because an appropriate performance level of Fluorine Free Foam (F3) alternatives has not been demonstrated. This represents a major challenge for fighting fires without C6- foams. It places lives under increased risk of harm and increases the risk of catastrophic fires occurring in six key sectors: Offshore installations; Defence; Civil Aviation; Marine shipping; bulk Storage and transportation of flammable liquids by road, rail, ship and pipeline; Neighbouring establishments to Seveso III sites, all of which are justified as requiring transition period extensions to 10-years, face equivalent challenges to Seveso III sites. Particularly regarding congestion, integral systems built into the fabric of structures, varying water qualities (eg. seawater), non-aspirated delivery to combat wind effects etc. SEAC recognises “Given the potential very high impacts of even a single catastrophic fire on human health and the environment, the proportionality of the proposal is uncertain if risks of such catastrophic fires are not kept as low as they are currently. SEAC recommends in this context to adopt a no-regret strategy; that is, a restriction option that remains justifiable whether catastrophic fires take place or not.” This requires extension to 10 years for these six sectors. Extensive fire performance evidence and detailed challenges facing these sectors are justified in the attached document forming an integral part of this submission, confirming that leading F3 alternatives lack equivalent functionality, placing lives in potential danger. Proposed transition times should be extended to avoid unnecessary risks to human health and the environment from increased risk of fire damage and potentially increased loss of lives, which is socially and economically unacceptable. |
| **Specific information 1:**  We have merged b, c & d together as Bulk Storage/Transportation, and provided practical application info. |
| **Specific information 4:**  PFAS Limit values Stay at 1ppm |
| **Specific information 5:**  Defence Art. 2(3) REACH |
| **Specific information 6:**  Marine sector (transport of bulk flammable liquid via ships) |

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| **1197** | **Date/Time:**  2023/05/12 10:32  **Type:**  BehalfOfAnOrganisation  **Org. type:**  Industry or trade association  **Org. name:**  AOP  **Org. country:**  Spain | **General Comments:**  AOP (the Spanish Oil Industry Association) welcomes the opportunity to comment on this SEAC Opinion on an Annex XV dossier proposing restrictions on Per- and polyfluoroalkyl substances (PFASs) in firefighting foams and send information on specific matters. AOP is available for any additional explanation if required. AOP acknowledges that SEAC has taken into consideration the information received through the previous consultation on the draft restriction report. Additionally, we would like to highlight your remarks on the transitional period of Seveso installations for which the appropriate performance of fluorine-free alternatives is considered to be not yet fully demonstrated. Because the consequences of reduced fire safety could potentially be disastrous, AOP agrees with SEAC consideration that a review of the substitution status before the end of the transitional period for Seveso establishments would be needed to address the remaining uncertainty about the successful future implementation of alternatives. Nevertheless, AOP would like to emphasize that the implementation of current text, could have important implications in Seveso establishments in the petrochemical and Refining sector during firefighting in emergencies. Hence, we would like to share some comments on SEAC opinion:  • Comments to review the transitional period - Section 3 (e):  We request to include the following in the restriction text: - That the 10 years transitional period could be extended depending on the conclusions of the review of the availability and technical performance of alternatives to PFAS-containing firefighting foams in the Seveso sector - A deadline for start of the review of the availability and technical performance of alternatives to PFAS-containing firefighting foams in the Seveso sector. - The final extended transitional period will be set only when conclusions of the review show that commercial non-fluorinated foams, that combat major class B fires under comparable requirements quality and effectiveness and work with the same application rates, are available and have been successfully tested. If these conditions are not met, a new interim transitional period and a new deadline for an update of the review will be set. - The extended transitional period duration will be decided based on the availability and technical performance of alternatives to PFAS-containing firefighting foams in the Seveso sector. It will be of at least 5 years that it’s the minimum time that for the industry needs to prepare the establishment for these new concentrates. This transitional period is required to tackle all the tasks needed due to the differences between current commercial AFFF and the FFF concentrates: a) Current commercial FFF concentrates in the market have to be used at 3% while AFFF concentrates are used at 1%, b) Also the application rates between both types of foams are different.  These differences have the following impacts: • Redesign fire-fighting systems: discharge devices and the proportioning systems (viscosity), and it includes the foam chambers, tanks, pressure drops, pipes, etc, • Recalculate our accidental scenarios, with the amount, handling, and logistic of foams. • MIRU (Major Incident Response Unit): redesign our Mobile fire- fighting equipment. • Changes in pre-plan fires: We will have to modify. • Foam stock increase (it will have to be tripled). In our type of establishment, we have an average of 250.000 L of foams and we will have to triple this amount with FFF products. • Supply and logistics difficulties: due to the increase of the amounts of FFF concentrates needed in establishments compared to the amounts of AFFF and the FFF availability limitations due to a high industry demand in a very short period. • Emergency mutual aid cooperation: incompatibility of foaming agents from different sources / suppliers. • Cleaning of fixed and mobile foam fire-fighting equipment • Drainage and retention systems: We will have to reevaluate and redesign our drainage and retentions systems that are not prepared for such quantities of waste. • Treatment plants: We need to increase the quantities in the retention and emergency ponds, as well as the treatment capacity of the effluent plants. • Manning requirements: More personnel will be needed to extinguish the fire and shorter throw distances will be necessary, representing a risk to firefighters. • Different type of FFF concentrates cannot be mixed, which is different in fluorinated foams. In case of a major fire, a stock of different types of foam is not manageable. For FFF foams, the user will always need to buy the same product considering that it should be unified, likewise, with all Administration public fire departments that provide external aid.  • Comment on Section 4 (d):  Section 4 (d) specifies that PFAS-containing waste resulting from the professional and industrial use of firefighting foams should be treated to minimize releases of PFAS to environmental compartments. With respect to the March 2022 text submitted by the Dossier Submitter, the term municipal wastewater treatment has been replaced by sewage treatment. Seveso facilities usually have onsite wastewater treatment plants that, together with pre-treatment, minimize PFAS emissions to the environment. That is why we request to recover the original text of March 2022 in which the expression municipal wastewater treatment plant was used as the only treatment that is excluded to reduce emissions. |

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| 1200 | Date/Time:  2023/05/12 14:12  Type:  BehalfOfAnOrganisation  Org. type:  National Authority  Org. name:  <redacted>  Org. country:  Netherlands  Company name confidential:  Yes  Attachment:  <redacted>  Privacy statement:  Due to the nature of military operations, threads and strategic importance of our material, comments are provided in the attached confidential document. | General Comments:  Please see the attached confidential document |
| Specific information 1:  Please see the attached document |
| Specific information 5:  Please see the attached confidential document |
| Specific information 6:  Please see the attached confidential document |

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| 1202 | Date/Time:  2023/05/12 17:43  Type:  BehalfOfAnOrganisation  Org. type:  Industry or trade association  Org. name:  Alliance for Telomer Chemistry Stewardship (ATCS)  Org. country:  United States of America  Attachment: | General Comments:  Please refer to the attached document. |
| Specific information 1:  Please refer to the attached document. |
| Specific information 4:  Please refer to the attached document. |
| Specific information 6:  Please refer to the attached document. |

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| 1204 | Date/Time:  2023/05/12 23:48  Type:  BehalfOfAnOrganisation  Org. type:  Industry or trade association  Org. name:  Fire Industry Association  Org. country:  United Kingdom  Attachment: | General Comments:  FIA/Euralarm recognise the need to control substances that are proven to present hazards to the environment and human health but with regard to C6 based fluorinated fire fighting foams we do not believe the case has been proven. However, if the intent is for this to happen then the replacements should provied the same level of protection and not result in loss of life (both human and animal) |
| Specific information 1:  see attached document |
| Specific information 2:  see attached document |
| Specific information 4:  see attached document |
| Specific information 5:  see attached document |
| Specific information 6:  see attached document |
| Specific information 7:  see attached document |

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| 1205 | Date/Time:  2023/05/13 09:25  Type:  Individual  Country:  Australia  Attachment: | General Comments:  Transition periods proposed need to be extended as they are too short currently, because equivalent fire performance functionality of Fluorine Free Foam (F3) alternatives has not been demonstrated, as the evidence presented confirms. This represents a major challenge for fighting fires without C6- foams and increases risks of life loss, harm to society and economic risks, while increasing the risk of catastrophic fires occurring. This is most likely across six key sectors (as well as Seveso III sites already recognized with 10-year extension plus review): Offshore installations; Defence; Civil Aviation; Marine Shipping; bulk Storage and transportation (flammable liquids) by road, rail, ship and pipeline; Neighbouring establishments to Seveso III sites, all of which are justified as requiring transition period extensions to 10-years, because they face similar (sometimes more severe) challenges to Seveso III sites, already granted extended transition. Particularly regarding congestion, weight and space restrictions, integral systems built into the fabric of assets, varying water qualities (eg. seawater, muddy rivers etc), non-aspirated delivery to combat wind effects etc. widely experienced Offshore, by Defence, Shipping and to some extent Aviation etc. SEAC recognises “Given the potential very high impacts of even a single catastrophic fire on human health and the environment, the proportionality of the proposal is uncertain if risks of such catastrophic fires are not kept as low as they are currently. SEAC recommends in this context to adopt a no-regret strategy; that is, a restriction option that remains justifiable whether catastrophic fires take place or not.” This requires extension to 10 years (with review) for these six sectors. Extensive fire performance evidence and detailed challenges facing these sectors are justified in the attached submission document forming an integral part of this submission, confirming beyond doubt that leading F3 alternatives lack equivalent functionality to existing C6-foams, placing lives in potentially increased danger. Proposed transition times should therefore be extended to avoid unnecessary risks to human health and the environment, otherwise resulting from increased risk of fire damage and potentially increased loss of lives from premature forced use of F3s, which is socially and economically unacceptable. |
| Specific information 1:  To these 4 sectors for extension should be added Defence, Civil Aviation and Marine Shipping. Full justification with extensive evidence base is provided in the attached submission. F3s are unable to provide equivalent functionality in each of these and the five listed sectors, which places lives under increased risk of harm, while also increasing the risk of catastrophic fires occurring, which SEAC's draft opinion recognises is unacceptable, stating "...there is a concern that the transition times proposed by the Dossier Submitter might not be sufficient to ensure the development, full testing and adoption of alternatives suitable for the most challenging types of fires. Given the potential very high impacts of even a single catastrophic fire on human health and the environment, the proportionality of the proposal is uncertain if risks of such catastrophic fires are not kept as low as they are currently. SEAC recommends in this context to adopt a no-regret strategy; that is, a restriction option that remains justifiable whether catastrophic fires take place or not.” This should be addressed with 10-year extended transition periods in these defined sectors. |
| Specific information 4:  1ppm PFAS limit values (on Total Organic Fluorine basis)should be imposed not just for F3 concentrates, but also system clean-out rinsing water, wastewater and effluent from Municipal wastewater treatment plants, biosolids and landfill leachate, which are significant polluters fo our environemnt with PFAS from diverse sources on a daily basis, which should be tightly regulated across EU to prevent PFAS and a wide range of other undesirable chemicals being discharged daily into our waterways. It is unacceptable to penalise one industry, leaving another to continue polluting the same chemicals into the environment on a relentless daily basis. This needs urgent regulation by ECHA and EU EPAs. |
| Specific information 5:  Irrespective of whether Art.2(3) of REACH applies or not, Defence justifies a 10-year extension as it still suffers lack of functionality by F3s particularly regarding non-potable waters, forceful applications, non-aspirated delivery devices, proportioning inaccuracy due to viscosity and munitions cook-off typically in 30secs. F3s even at high application rates have been shown unable to extinguish pool fires in much less than 60 secs, are usually attacked by seawater, dry chemical and volatile fuels like gasoline. The evidence presented in the attached submission justifies a 10-year extension (with review). |
| Specific information 6:  F3s are shown to generally perform poorly in seawater, which has a detrimental impact on their use in the Marine sector. Particularly when often expected to be applied forcefully through non-aspirated delivery devices to combat the adverse effects of wind. Add to this extreme hot and cold operating temperatures and lives are being exposed to increased risk unless a 10-year extension is granted, as detailed in evidence provided in the attached detailed submission. |
| Specific information 7:  From a technical standpoint the proposed 18-months would seem adequate for small fires where fire brigades use high application rates through existing equipment, providing they also have the ability to use C6-foams when attending fires at Seveso III sites (as proposed), but ALSO when attending the extra six key sectors explained in the attached submission - ie. Offshore, Defence, Civil Aviation, Marine Shipping, bulk Storage and Transportation by rail, road, ship, pipeline and Neighbouring Establishments to Seveso III sites, to avoid the risk of escalation or re-ignition into such adjacent hazardous and challenging areas, for which F3 alternatives have not demonstrated equivalent functionality. |

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| 1208 | Date/Time:  2023/05/15 11:06  Type:  BehalfOfAnOrganisation  Org. type:  Company  Org. name:  CNOOC International  Org. country:  United Kingdom  Attachment: | General Comments:  Proposals for the restriction of PFHxA (C6) and its derivatives have been submitted and supported by the Committee for Risk Assessment (RAC) of the European Chemical Agency (ECHA) in March 2020, in order to reduce persistent PFAS within the environment and promote Fluorine Free alternatives. These proposals would impact the use of C6 and C8 PFAS in firefighting foam and it is noted that the opinion of the RAC and SEAC committees is expected mid-2023. Proposed exemptions under this proposal do include 18 months for miscible fire services, 5 years for most industries and 10 years for Seveso-III establishments and exports however there is currently no exemption for the UK Offshore Oil Sector. If the current proposals come into place this would mean that PFAS Firefighting foams cannot continue to be used: 1. 5 years after entry into force for portable foam extinguishers 2. 10 years after entry into force for establishments covered by the Directive 2012/18/EU (Seveso III) (upper and lower tiers) 3. 5 years after entry into force for all other users not listed above This would include the UK Offshore Oil Sector. Our current foam concentrate supplier OilTechnics have produced a highly detailed background document and have kindly allowed it's use as support for our submission. We have attached it to this form.  Based on the points below and the support document CNOOC International request that a derogation period, similar to Seveso III (above), of 10 years is granted to the UK Continental Shelf Oil Sector.  1. Most UKCS Oil Platform operators use 1% low freeze C6 AFFF concentrate in Seawater for fighting helideck or large scale hydrocarbon process fires. 2. UKCS predominantly use the fire-fighting foam testing standard UL162 for AFFF-LF C6 in which the foam is tested under critical application rates at low temperature and in sea water. Current advice from our Firefighting Foam Concentrate Supplier is that worldwide no F3 foam alternative AFFF LF C6 foam has yet been accredited to the UL162 low freeze standard. It should also be noted that recently the US Navy issued a statement indicating that F3 foams for application in sea water are less effective i.e., unsuitable and therefore come under the heading “THIS PRODUCT IS NOT AUTHORISED FOR US NAVY SHIP-BOARD USE”.  Swedish Research (Dahlbohm, 2022) also found poor seawater performance with F3 foams. 3. There is little data available on the effectiveness of F3 foams used within non-aspirated systems, especially against wind and when sea water is used. As most of the fixed systems offshore (especially on helidecks) utilise non-aspirated nozzles this lack of data on performance gives little confidence in the efficacy of Non C6 Concentrates. 4. F3 foams cannot be assessed as being compatible across manufacturers (as is the case with current UL162 C6 Concentrates). The requirement to maintain single source integrity of supply could lead to problems during or after a major incident where the current common practice of making reserve stocks available to other end users would not be possible without the addition of rigorous compatibility checks. 5. In their report, SEAC notes that, based upon information on Annex XV, the volumes of surfactants needed for alternative F3 foams will be greater than those of PFAS surfactants. Also, the demanded volume of fluorine-free foam to extinguish a fire may be greater (up to twice the volume is reflected in the Annex XV) than the corresponding volume of a PFAS-based foam. There is currently no 1% F3 Concentrate on the market and, as all CNOOC asset foam systems utilise 1% concentrate, this would require a substantial increase in foam concentrate storage space due to the increased proportioning rate. This extra storage space is not easily available on Oil Platforms. E.g., The Scott platform utilises a central foam storage skid of 4000 litre capacity. Changing the induction rate to 3% would increase capacity by 8000 litres with the corresponding increase in weight of approx. 8.25 Tonne not including the additional weight of the larger storage tank. 6. Existing proportioning systems on two out of the three CNOOC assets are also not readily adjustable to deliver an increased rate of concentrate and as such this would require the replacement of the proportioning equipment. Depending on the delivery flow required due to the higher proportioning rate there may also be a requirement to increase pipework and control valve size. The associated cost would be high, however of greater concern would be the time required to replace proportioning equipment and (highly likely due to the increased delivery flow requirement) distribution pipework. This would leave the platform without fire protection which would be unacceptable, resulting in a requirement to shut down the platform for the change out duration thereby leading to massive financial losses. 7. Because of the tenacious way that fluorosurfactants can adhere to storage tanks, pipework, and equipment, if the delivery pipework and equipment was found to be suitably sized there would still be a requirement for extensive down time to clean the storage tanks and delivery system. This would again leave the platform without fire coverage. 8. The risks to life from hydrocarbon fires offshore are comparable if not higher than those in SEVESO III sites. Being land based SEVESO III sites generally have diverse escape routes and personnel can quickly leave the vicinity of an incident. Offshore installations are: • Congested and confined multi-level hazardous facilities. • Closed environments with accommodation areas that, in many cases, are adjacent to hazardous areas. • Facilities that have limited personnel escape options with little separation distances from safe and hazardous areas.  SEAC already consider that it will take somewhere in the region of 10 years to develop suitable firefighting foam alternatives for use in SEVESCO III sites. As offshore facilities can be considered to pose similar if not higher risk to personnel from fire it is requested that SEAC recommend a similar derogation period for the UK Continental Shelf Oil Sector. |
| Specific information 1:  See attached technical submission from OilTechnics |

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| 1209 | Date/Time:  2023/05/15 13:23  Type:  BehalfOfAnOrganisation  Org. type:  Industry or trade association  Org. name:  Euralarm  Org. country:  Switzerland  Attachment: | General Comments:  FIA/Euralarm recognise the need to control substances that are proven to present hazards to the environment and human health but with regard to C6 based fluorinated fire fighting foams we do not believe the case has been proven. However, if the intent is for this to happen then the replacements should provide the same level of protection and not result in loss of life (both human and animal) |
| Specific information 1:  see attached document |
| Specific information 2:  see attached document |
| Specific information 4:  see attached document |
| Specific information 5:  see attached document |
| Specific information 6:  see attached document |
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| 1210 | Date/Time:  2023/05/15 13:22  Type:  BehalfOfAnOrganisation  Org. type:  Company  Org. name:  Chemours Netherlands B.V.  Org. country:  Netherlands  Attachment: | General Comments:  Chemours welcomes the opportunity to submit general comments (attached) on the SEAC draft opinion on the proposed restriction of PFAS used in fire-fighting foams ("FFFs") during the public consultation, open until 15 May 2023. |

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| 1211 | Date/Time:  2023/05/15 13:44  Type:  BehalfOfAnOrganisation  Org. type:  Industry or trade association  Org. name:  Fire Industry Association  Org. country:  United Kingdom  Attachment: | General Comments:  FIA/Euralarm recognise the need to control substances that are proven to present hazards to the environment and human health but with regard to C6 based fluorinate fire fighting foams we do not believe the case has been proven. However, if the intent is for this to happen then the replacements should provide at least the same level of protection and not result in the loss of life (both human and animal). Note Resubmitted as there was an error in the contact email address on the first submission. |
| Specific information 1:  See attached document |
| Specific information 2:  See attached document |
| Specific information 3:  See attached document |
| Specific information 4:  See attached document |
| Specific information 5:  See attached document |
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| 1213 | Date/Time:  2023/05/15 14:57  Type:  BehalfOfAnOrganisation  Org. type:  Company  Org. name:  <redacted>  Org. country:  Finland  Company name confidential:  Yes | General Comments:  We welcome the transition to more sustainable materials including fire fighting foams. As a chemical plant operator we are in addition legally required to protect employees and local communities from major accidents at all times. The current proposal introduces significant uncertainties for selection of new/novel PFAS-free foam types, and the necessary redesign of our existing foam systems. Therefore, while serving the environmental and sustainable goals of institutions as well as industry, we believe it is vital that the proposal also honours our responsibilities and concerns with respect to ensuring safety to employees & local communities.  We have the following arguments.  (1) We are (rightly) expected to guarantee safety at our sites at all times. This requires us to use foams that are proven effective, using installations that are fit-for-purpose, certified and inspected on a regular basis. Currently, no known ‘drop-in-place’ alternatives exist for some of our more challenging products (reactive, toxic, flammable monomers) – each combination must be certified and/or tested for (1) compatibility, (2) extinguishing efficacy, and (3) any design changes to existing installations. Whatever replacement information has been developed by foam suppliers, is commonly treated as commercial-confidential by parties involved (phone conversation 22.4.2023 with major foam supplier). In addition, the job market for technical staff is extremely tight and is expected to grow even tighter, adding to the time needed for researching, testing, (re)designing. This is not only valid for Seveso sites, but also for non-Seveso chemical company sites operating similar foam systems.  (2) We are concerned about the ability of the hazardous waste processing sector to deal with a significant quantity of PFAS-containing wastes. Our company alone would have to discard approximately 40-50 m3 of PFAS-containing fire-fighting foam, let alone all of chemical industry, and not yet including the cleaning water streams involved to clean existing systems. Waste waters contaminated with more than 1ppm PFAS we estimate to be a multiple of the PFAS volumes itself, i.e. easily amounting to 100-200 m3 of PFAS-contaminated waste water. With around 29000 chemical companies in Europe (CEFIC 2023-Facts-and-Figures powerpoint) this, in worst case, could mean 3000-6000 kton of PFAS containing waste that must be disposed of. There already is a very limited treatment capacity available for PFAS containing waste.  (3) Uncertainty of reaching limit values after cleaning existing installations. The restriction proposal mentions a 1 ppm limit on PFAS to treat foam concentrate as PFAS-free. Reality however is that, despite intensive cleaning of existing units, our experience shows that, over time, scaling, gaskets, threads, etc., can release small quantities of chemicals, thereby re-contaminating previously PFAS-free materials. In addition, collecting a reliable, representative sample of foam concentrate from the systems we operate is not possible as the systems cannot be made to uniformly mix up. Results from this insufficient sampling cannot serve as a solid base for compliance approvals. In a conversation with our foam concentrate supplier (22.4.2023), it was stated that neither they , nor any other parties they know, will provide any such assurance or certification due to the above-mentioned issues. This introduces significant compliance risks that we cannot adequately assess or control: (a) Benefit of lower PFAS residuals vs additional cleaning and waste generation. As an example: a 2000 kg, 6% PFAS containing concentrate bladder tank that is cleaned to 99% efficiency only contains some 1.2 kgs of PFAS or approx. 600 ppm after mixing with virgin concentrate. (b) No rational explanation is provided why residual PFAS concentrations should a factor of 50 - 1000 lower than for known hazardous chemicals such as SVHCs or POPs . The proposed limit value is extremely low when compared with e.g. SVHC presence in chemicals which has a legal reporting limit of 0.1% = 1000 ppm. Moreover, most POPs are regulated around the 50 ppm level or higher. The 1 ppm proposed limit is therefore vastly exceeding the regulatory practice for significantly more hazardous chemicals and is therefore not justifiable. (c) Inadequate certainty. Even if the cleaning operations achieves the expected 1 ppm level, there is neither the sampling reliability nor the guarantee over time, that residual PFAS values are measured accurately and remain below this level over time. (d) Since 95-99% of installations are never used and hence the PFAS containing foam does NOT end up in the environment (SEAC conclusion), we would like to also point out that even in the case installations ARE used to extinguish fires, the bulk of fire-fighting foams applied are contained, collected and appropriately processed, further reducing the real emissions to the environment.  (4) Capex. In our company, around 30% of our sites operate one or more foam systems. We are talking about ~ 20 systems with a total foam concentrate volume of approx. 50 m3 (individual capacity range of 0.3 – 9 m3). We have significantly invested in most of these systems in the past 5-10 years, with CAPEX costs totalling around 30 MEUR (individual units ranging from 500 kEUR – 2.6 MEUR). Any replacement strategy must – besides achieving the target of PFAS elimination from our environment –take into account unnecessary destruction of capital.   Based on the above, we would therefore strongly urge you to:  (1) Clearly state that not just Seveso sites but also non-Seveso sites with foam systems are allowed the 10-12 year transition time as mentioned in the proposal (Annex XV restriction proposal report, Page 78, Table 8), in order to guarantee on all our sites, the continued safety of our operations to employees and local communities.  (2) Consider focusing efforts on modified & new foam installations rather than existing units. 90-99% of these units will never have to be used “in anger” to extinguish a major fire scenario, and the PFAS-containing foam they contain therefore does not pose any environmental or health risk whatsoever. In addition, foam used during incidents will mostly be collected and processed, reducing the environmental burden. Therefore, in analogy with handling of e.g. asbestos, the safest, most environmentally responsible, and economically feasible option likely is leaving them in place until drop-in-place options are available or shelf life of the existing foam concentrate is expiring, or the installation requires technical modification or replacement. This will also help to mitigate PFAS waste processing capacity limitations.  (3) Reconsider the required 1 ppm residual PFAS level for existing units that are repurposed, cleaned and refilled with PFAS-free concentrate, ideally stating a cleaning approach to reach acceptable but realistic residual levels. A level of at least 50-100 ppm PFAS for existing situations should be considered, which is also reducing the PFAS presence with a factor of ~1000-5000. This will also help to mitigate PFAS waste processing capacity limitations. |
| Specific information 4:  The restriction proposal mentions a 1 ppm limit on PFAS to treat foam concentrate as PFAS-free. Reality however is that, despite intensive cleaning of existing units, our experience shows that, over time, scaling, gaskets, threads, etc., can release small quantities of chemicals, thereby re-contaminating previously PFAS-free materials. In addition, collecting a reliable, representative sample of foam concentrate from the systems we operate is not possible as the systems cannot be made to uniformly mix up. Results from this insufficient sampling cannot serve as a solid base for compliance approvals. In a conversation with our foam concentrate supplier (22.4.2023), it was stated that neither they , nor any other parties they know, will provide any such assurance or certification due to the above-mentioned issues. This introduces significant compliance risks that we cannot adequately assess or control: (a) Benefit of lower PFAS residuals vs additional cleaning and waste generation. As an example: a 2000 kg, 6% PFAS containing concentrate bladder tank that is cleaned to 99% efficiency only contains some 1.2 kgs of PFAS or approx. 600 ppm after mixing with virgin concentrate. (b) No rational explanation is provided why residual PFAS concentrations should a factor of 50 - 1000 lower than for known hazardous chemicals such as SVHCs or POPs . The proposed limit value is extremely low when compared with e.g. SVHC presence in chemicals which has a legal reporting limit of 0.1% = 1000 ppm. Moreover, most POPs are regulated around the 50 ppm level or higher. The 1 ppm proposed limit is therefore vastly exceeding the regulatory practice for significantly more hazardous chemicals and is therefore not justifiable. (c) Inadequate certainty. Even if the cleaning operations achieves the expected 1 ppm level, there is neither the sampling reliability nor the guarantee over time, that residual PFAS values are measured accurately and remain below this level over time. (d) Since 95-99% of installations are never used and hence the PFAS containing foam does NOT end up in the environment (SEAC conclusion), we would like to also point out that even in the case installations ARE used to extinguish fires, the bulk of fire-fighting foams applied are contained, collected and appropriately processed, further reducing the real emissions to the environment. |
| Specific information 7:  We are aware of foam replacement projects going on in several places, most notably in professional industrial fire brigades. Since a significant number of our sites are located in more remote areas, fire brigade support will come from municipal fire brigades. Their responsible and well controlled transition to Fluor-free foams is vital for effectively managing major fire & chemical incidents at our sites. We therefore do NOT agree to the suggested in this question that justification for a longer transition time is insufficiently motivated. We must be able to trust on our municipal fire brigades to have the best possible transition, to safeguard fire fighters as well as our own employees, and fulfilling our Seveso expectations. We also do NOT agree with the notion to distinguish between Seveso and non-Seveso chemical plants: plenty of non-Seveso plants have hazardous chemicals being protected by foam systems as well, to prevent major safety and environmental issues for employees and communities. The transition should therefore take place with equal precision & quality as for Seveso locations. Their transitions times should be 10-12 years as well. |

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| 1214 | Date/Time:  2023/05/15 16:50  Type:  BehalfOfAnOrganisation  Org. type:  Industry or trade association  Org. name:  Fire Fighting Foam Coalition (FFFC)  Org. country:  United States of America  Attachment: | General Comments:  The Fire Fighting Foam Coalition Inc. (FFFC) appreciates the opportunity to provide comments on the SEAC draft opinion on the ECHA proposal for a REACH restriction on per- and polyfluoroalkyl substances (PFAS) in firefighting foam. FFFC is a global association that represents manufacturers of firefighting foams and their chemical components on regulatory and legislative issues. The coalition provides a focal point for industry technical reviews, development of industry positions, and interactions with relevant organizations such as environmental agencies, militaries, approval agencies, and standards bodies. FFFC members provide most of the firefighting foam used in the European Union and a significant percentage of the firefighting foam used worldwide, including both fluorinated and fluorine-free foams.  In our May 2022 comments, FFFC expressed support for the ECHA proposal for a REACH restriction on PFAS in firefighting foam because the proposal is clear, comprehensive, and mostly achievable in the timeframes provided. Importantly, it addresses the concerns that were raised by manufacturers and users in response to the foam provisions of the PFHxA restriction proposal. FFFC supports the proposed revisions to the ECHA restriction proposal as outlined in the SEAC draft opinion. FFFC believes these changes will increase the likelihood of successful implementation of the restriction and provide additional assurance to high-hazard users that acceptable alternatives will be available in the required timeframe.  FFFC notes that the continued uncertainty as to the outcome of the foam provisions of the PFHxA restriction proposal is causing confusion among foam users, making it difficult to properly plan for a future transition. If adopted, over 99% of PFAS foams would be covered under the PFHxA restriction rendering the ECHA proposal moot. FFFC would strongly support firefighting foams being removed from the PFHxA restriction and all PFAS foams being regulated under a single restriction for firefighting foam as outlined in the ECHA proposal and SEAC draft opinion. This would aid in enforcement and clarity of the rules and restrictions for the use of foam. Multiple regulations affecting the manufacture and use of substances and mixtures will be hard for downstream users to maintain compliance. FFFC would urge ECHA and the dossier submitters of the PFHxA restriction proposal to clarify publicly that the ECHA PFAS foam restriction proposal is the restriction moving forward that will regulate foam in the EU and that the foam provisions of the PFHxA restriction will not enter into force regardless of the final disposition of that restriction. |