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Re: NGO response to "Phase 1 of the Risk Management of Per- and Polyfluoroalkyl Substances (PFAS), Excluding Fluoropolymers: Prohibition of the Use of PFAS, not Currently Regulated, in Firefighting Foams" (Consultation Document)

The Canadian Environmental Law Association, Health and Environmental Justice Support, Northwatch, and Citizens' Network on Waste Management submit the following comments and recommendations to the *Consultation Document on Phase 1 of the Risk Management of Per- and Polyfluoroalkyl Substances (PFAS), Excluding Fluoropolymers: Prohibition of the Use of PFAS, not Currently Regulated, in Firefighting Foams* for your consideration.

Comments and Recommendations

Proposed Prohibition of PFAS in fire fighting foam

We welcome Phase 1 risk management actions under the *Canadian Environmental Protection Act* (*CEPA*) to prohibit the use of PFAS as a class, excluding fluoropolymers. While we continue to

have concerns about excluding fluoropolymers from PFAS from these proposals, the government's proposed measures to address PFAS in the environment and their impacts on human health should be pursued without delay. We support the Government of Canada proposing new regulations under CEPA to prohibit manufacture, use, sale and import of PFAS in firefighting foam.

Developing a new regulation under *CEPA* to prohibit PFAS in firefighting foam will make it easier to focus on fire fighting foam despite having a similar scope of obligations covered under the *Prohibition of Certain Toxic Substances Regulations, 2012* under the Act. All exemptions applied to PFAS for PFOS and its salts, PFOAs and LC-PFCAs have yet to be lifted as proposed in May 2022. These exemptions, if deleted, will target the most used long chain PFAS substances in AFFF in Canada. Immediate response is needed to ensure all PFAS will be prohibited in AFFF. Passing a new regulation on PFAS under *CEPA* should cover the full cycle of PFAS in firefighting foam and could include specific provisions to:

(1) address stock and waste of PFAS in AFFF;
(2) outline factors for considering time limited exemptions, final disposal and management of AFFF; and
(3) address requirements for permits, disclosure and reporting for any uses of PFAS in firefighting foam.

Recommendation 1: We recommend the Government of Canada pass new regulations under *CEPA* to prohibit manufacture, use, sale and import of PFAS in firefighting foams.

Recommendation 2: New regulations to prohibit PFAS under *CEPA* should address the full cycle of PFAS in firefighting foam and could include specific provisions to: (1) address remaining stocks of PFAS in AFFF; (2) outline factors to consider time limited exemptions, final disposal and management of AFFF; and (3) address requirements for permits, disclosure and reporting for any uses.

Recommendation 3: Eliminate all exemptions that apply to PFAS substances: PFOS, PFOAs, LC-PFCAs in the *Prohibition of Certain Toxic Substances Regulations* as proposed in May 2022 immediately.

Definition of PFAS

We continue to applaud the Government of Canada's approach to address PFAS by applying the Organisation for Economic Co-operation and Development (OECD) definition of 2021, which is: "fluorinated substances that contain at least 1 fully fluorinated methyl or methylene carbon atom (without any H/Cl/Br/I atom attached to it), that is with a few noted exceptions, any chemical with at least a perfluorinated methyl group (–CF3) or a perfluorinated methylene group (–CF2–) is a PFAS." The OECD 2021 definition includes PFAS substances such as fluoropolymers, these PFAS substances are excluded from Canada's current approach to manage PFAS. Canada's exclusion of fluoropolymers contradicts the OECD 2021 PFAS definition and overlooks increasing scientific evidence that fluoropolymer manufacturing and degradation release significant amounts of short-chain PFAS and processing aids. This omission creates a key regulatory loophole and may weaken the benefits of the new prohibitions.

The proposed approach under Phase 1 risk management actions should address all PFAS substances including trifluoroacetic acid (TFAs), currently used in AFFF and should not be restricted to PFAS substances on the Domestic Substances List, the non-Domestic Substances List, and those PFAS notified under the New Substances Regulatory Program. Such an approach will have a significant impact on reducing use of AFFF in Canada and provides the appropriate regulatory signal to shift to fluorine free foams to replace PFAS use in Canada that will reduce exposure to the environment and health.

We remain concerned that Canada's approach on PFAS excludes fluoropolymers. Although fluoropolymers are not used as active ingredients in formulation of AFFF, they are known to be used as stabilizers in the formulation process. The exclusion of these PFAS will ultimately have an impact on the environment and health.

Recommendation 4: We support the use of the OECD 2021 definition for PFAS. All PFAS substances with exception of fluoropolymers, addressed through the proposed regulation on PFAS in firefighting foam would include TFAs and fluorosurfactants, used in AFFF and not restricted to PFAS on the Domestic Substances List, non-Domestic Substances List, or the New Substances Program.

Recommendation 5: We continue to maintain the need to include fluoropolymers as part of the PFAS group and as it meets the PFAS definition by OECD 2021 and understanding that these substances are used as stabilizers during the production of AFFF.

Recommendation 6: The evaluation and inclusion of fluoropolymer as part of PFAS class should be undertaken without delay to ensure alignment with the proposed regulations on PFAS in AFFF.

Timelines for Transition away from AFFF

The proposed timelines for transition to prohibit PFAS in AFFF are long and there is lacking a rationale for setting these timelines as proposed. More than 100 federal PFAS-contaminated sites already exist across Canada, many of which are linked to historic AFFF use. Without mandatory monitoring and remediation triggers, transition timelines risk prolonging exposures for nearby residents.

Specifically, the availability of safer alternatives in the form of fluorine free foam (F3) should provide some support to reduce the proposed transitional periods for key applications for civilian aviation and ships, defence, and high hazard industries with proposed transition timelines of 3 or

6 years. Jurisdictions such as the European Union[1] and the United States[2] have already taken regulatory measures to discontinue use of AFFF with the availability of F3 applications. By reducing the proposed transition timelines for PFAS-free alternatives, Canada could better align with the efforts of these jurisdictions.

Since F3 foams are certified under major international standards, Canada's proposed 3–6 year transition appears excessive and unjustified. A 2-year transition aligns with global best practices and reduces ongoing contamination.

The proposed approach on PFAS in AFFF includes no exemptions for manufacture or import of AFFF. However, the government proposals will allow exemptions for sale between "mutual partners". We are concerned such an exemption could result in ongoing use and eventual impact on the environment and health (particularly for workers and surrounding communities). The proposal does not include these details for justifications and rational for allowing exemptions. What conditions would need to be met to sell AFFF to mutual aid partners? The availability of F3 should make it substantially challenging for mutual partners to make the case to approve the sale of AFFF with PFAS. In any situations where exemptions are to be provided, clear disclosure and public reporting should be required to ensure adequate tracking to communities are in place.

The proposed regulations should apply to facilities (airports, firefighting services) using firefighting foam and ensure that transition is made to fluorine free foam. This is particularly important for firefighting services that are smaller in scale where they may be located in rural communities or even operated on a volunteer basis. The consultation document does not provide any details on how such facilities are covered under the regulations. Many of these facilities may need further assistance and resources to comply with the transition to fluorine free foam. Table 4 of the consultation document outlines the qualifying thresholds for transitional periods for high-hazard industries with quantity set in tonnes. The smaller facilities may not adequately meet these thresholds to meet the transitional period. The proposed regulations should ensure that all size facilities need to meet the requirements of the regulations.

Recommendation 7: Given the current availability of F3 to replace AFFF, we recommend shortening the transitional period for key uses of AFFF to F3: civilian aviation and ships, defence, any high hazard industries from 3-6 years to 2 years.

Recommendation 8: We support the Government of Canada's approach not to allow for exemptions for the manufacture or import of AFFF.

Recommendation 9: Do not permit exemptions for sale of AFFF for mutual aid partners. If

[1] European Commission amended the EU REACH regulations in November 2024 "to restrict placing on the market and the use of AFF using a class-based approach" and adopted draft regulations in August 2025 with an aim to finalize regulations before the end of 2025. The final regulations are expected to enter into force 20 days after regulations are passed.

[2] National Defense Authorization Act for Fiscal Year 2020 for military use and by US Congress documentation along with the Consolidated Appropriations Act, 2023. Extensions for continued use of AFFF have been issued for specific use in military applications.

exemptions are allowed, specific information must be disclosed including quantity and application, use location, timelines for use and impacted environment and communities. Such information should be accessible to the public through disclosure requirements.

Recommendation 10: We recommend that all facilities and operators using AFFF regardless of size and location (including rural and Indigenous communities with vulnerable water sources) be covered by the proposed regulations including smaller facilities and operators using AFFF. These facilities may require technical and financial resources to ensure effective transition to fluorine free foam for firefighting.

High Risk Communities in areas in proximity to PFAS sources (civilian airports and ships, military locations, high-hazard industries)

The regulations for prohibition of PFAS in AFFF should prioritize those communities near defence facilities, civilian ships, and high-hazard industries that use AFFF extensively. We know that there are almost 100 PFAS contaminated sites in federally owned military sites and airports across Canada which are in different phases of assessing remediation. Adequate protection of primary drinking sources for many communities surrounding these facilities and industrial sites have yet to be tested for PFAS, leaving the environment and communities at risk of impacts from PFAS. Yet more studies are emerging showing that PFAS is moving further away from the source. It is important that the Phase 1 actions include substantial testing and monitoring of PFAS in drinking water sources, land and air around these facilities. These measures should be undertaken immediately and routinely. Communities should be given support and should not carry the burden to conduct testing on their own. Any affected communities need to be engaged fully in these efforts. Currently, the consultation document and government proposals do not contain any details respecting follow-up activities or actions to mitigate risks to these communities and individuals.

Recommendation 11: The Phase 1 approach should include a substantial requirement to test and monitor for PFAS in drinking water, land and air as well as any PFAS sent off for disposal and treatment. Affected communities should be engaged fully in these efforts and should not have to be burdened with the cost of testing. Commitment should include giving priority to Indigenous and rural communities with vulnerable and contaminated water sources. Public reporting should be required to ensure transparency and early action.

Fluorine Free Foams (F3): Accessibility and Transition Period

The proposed regulations will provide the signal for adopting Fluorine Free Foam (F3) as an appropriate alternative for the use of PFAS in AFFF. The consultation document outlines the challenges facing early adoption of F3 by facilities including effectiveness and cost as the main obstacles for transition from use of PFAS. The promotion/compliance and enforcement mechanism in the regulations will be key to ensuring the move towards PFAS-free alternatives. Similarly, additional requirements needed in regulations are labelling and disclosure. Without such requirements, barriers to adopting alternatives could be delayed and impacts from PFAS exposure to communities could continue.

Recommendation 12: Require effective enforcement mechanisms in the regulations to transition from AFFF to F3 alternatives. Require disclosure and labelling of substances in fire fighting foams to the lowest possible detectable level with the best testing technologies to confirm that PFAS substances are not in use.

Unused AFFF Stocks

The consultation document outlines the presence of AFFF in waste (resulting from using AFFF in emergency and firefighting testing procedures during transition periods, and from wastewater, firewater and from PFAS containers and stocks of un-utilized AFFF) that will continue to exist once the regulations are in place. The government should consider requiring site specific management plans for specific existing AFFF (including existing fire fighting foam or stock of AFFF, waste and PFAS contaminated equipment) as necessary to better track and monitor remaining AFFF and presence of PFAS. We agree that information as outlined in section 4.1.3 should be gathered. It is important for facilities (including those facilities with stocks of AFFF and firefighting systems, AFFF-related waste in stock or PFAS contaminated firefighting equipment) to be required to submit site specific management plans within a year rather than 18 months after regulations come into force. The continued presence of PFAS needs to be closely tracked and monitored. The government should make site specific management plans available on-site and accessible to enforcement officers. The government should also make available site-specific management plans to the public and report on progress made by facilities to reduce and eliminate PFAS levels in their operations and all equipment and storage using or contaminated with PFAS.

Recommendation 13: We urge the government to require site specific plans in the proposed regulations to include all facilities that will be using AFFF in emergency and firefighting testing procedures during the transitional periods, as well as from wastewater, firewater and from PFAS containers and stocks of un- utilized AFFF. All site-specific management plans should be required within one year of regulations coming into force. Site-specific management plans and records should be accessible on-site and accessible to enforcement officers. We also urge the government to makes these site-specific management plans accessible to the public.

Fire Safety Standards

The consultation document provides commentary that civil aviation, military operations, ships and ports, and high hazard industries are required to meet fire safety standards. Most of these fire safety standards are performance based and, generally do not specify which materials and substances are required to meet set standards. Notably, the aviation sector has relied on the Canadian Aviation Regulations (CARs) and accompanying Standard 320 and 325 requiring airports, aerodromes and heliports to use extinguishing agents that meet certain performance specifications. These operations have relied on the Underwriters Laboratory of Canada (ULC) CAN/ULC-S560 or CAN/ULC-S563 to meet their requirements under CARs. The standard CAN/ULC-563:2022 was developed to allow for use of high performance and aviation synthetic F3 liquid concentrates. However, certification of F3 products under this standard are required before they can be utilized.

Such barriers need to be addressed immediately if the regulations on firefighting foam are to reach its optimal effectiveness.

In the Canadian military, standards applying to firefighting foams in aviation aircraft rescue firefighting, the US Department of Defence (DoD) Military Standards (MIL-SPEC) apply. In 2023, the US DoD applied the MIL-PRF-32725 to allow for development of F3 concentrates that meet the DoD specifications (excluding polar solvents or on-board military ships). This new standard has resulted in use of F3 products meeting US DoD performance specifications.

Other facilities such as high hazard industries that face significant fire hazards can adopt and apply the National Fire Code of Canada (NFCC), which set out minimal acceptable measures for fire safety. The NFCC contains a few non-Canadian standards including the US National Fire Protection Association 11, which aims to address the need for foam suppression on hardware but does not prescribe specifically the type of foam that should be applied. No substantial changes have been made to this standard, however additional information on fluorine-free foam has been added in the Annex of NFPA 11.

It is important that any relevant fire safety standards be referenced and be specific in its intent to adopt and use fluorine-free foam to meet fire safety standards. Currently, there are barriers within these standards that need to be addressed. The process for reviewing and making revisions to standards are complicated as these standards are hard to access (making them available only to industry) and not publicly accessible.

Recommendation 14: Ensure applicable standards for fire safety in airports, defence facilities, high hazard industry are referenced in regulations to ensure alignment with the scope and objectives of the regulations and to avoid situations where PFAS are used.

Recommendation 15: The Government of Canada should take steps to certify F3 under all standards, particularly under the Canadian Aviation Regulations to meet fire safety requirements.

Recommendation 16: All standards referenced in legislation should be publicly available.

Proposed Incidental Presence for PFAS

We welcome the proposal to establish incidental presence of PFAS to determine what level of PFAS would be acceptable in Canada and where the prohibitions would not apply. We want to ensure that the threshold for incidental presence is sufficiently low to require an effective transition to PFAS-free alternatives. While the government does not intend to create a threshold for incidental presence of PFAS that apply to PFAS in storage for final disposal, it is critical to consider what this threshold means when it comes to waste containing PFAS. Applying “environmentally sound disposal” for waste containing PFAS should aim for levels way below the established thresholds to demonstrate the effectiveness of treatment. Currently, the consultation document does not address this issue and leaves a significant gap in its lifecycle approach to PFAS.

Recommendation 17: Establish an incidental presence threshold for PFAS at the lowest possible levels. Such a threshold should be used to facilitate communication with suppliers on what are acceptable levels of PFAS. However, establishing an incidental presence of PFAS threshold should also trigger the need to address waste containing PFAS that aims to achieve PFAS levels lower than the threshold, demonstrating the effectiveness of PFAS treatment.

Recommendation 18: Apply "environmentally sound disposal" methods for waste containing PFAS by ensuring complete destruction of PFAS using non-incinerating technologies.

Thank you for considering our comments and recommendations. If you have questions about our submission, please contact us.

Respectfully,

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