Minister of Transport | Ministre des Transports

Ottawa, Canada K1A 0N5

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Dear Ms. Fe de Leon and Co-signatories:

I am writing in response to the environmental petition (petition #0458) dated August 19, 2021, which you sent to the Commissioner of the Environment and Sustainable Development, regarding per- and polyfluoroalkyl substances (PFAS) and how federal legislation addresses these substances.

I understand that the ministers of Environment and Climate Change Canada, Health Canada, and the Department of National Defence will also respond to your petition according to their respective mandates and legislative responsibilities.

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Transport Canada has reviewed your petition in relation to the department's mandate, and I would like to offer responses to questions #2, #7, #8, #9 and #14.

2. How will the Government of Canada prevent regrettable substitutes for PFOS, PFOA and LC-PFCAs? In the 2018 consultation document reference is made to the removal of exemptions due to fact that 'alternatives are available globally'. Can the government clarify if these alternatives are fluorine-free or if they are other PFAS-based substances? Does the Government of Canada intend to promote PFAS-free alternatives to the use of PFOS, PFOA and LC-PFCAs? In particular, what is the rationale for regulations permitting the use of PFOS "in aqueous film forming foam present in military vessels or military firefighting vehicle contaminated during foreign military operations" and LC-PFCAs in aqueous film forming foam used in fire fighting? How is Transport Canada promoting the use of fluorine-free firefighting foams?

Section 303.08 of the Canadian Aviation Regulations (CARs) provides that the operator of a designated airport or of a participating airport or aerodrome shall provide its aircraft fire-fighting service with both the principal and the complementary extinguishing agents and the equipment delivering the agents that meet the requirements set out in the aircraft fire-fighting standards. Paragraph 323.08(1)(a) of the CARs Standard 323 – Aircraft Fire Fighting at Airports and Aerodromes requires the following:

> **323.08**
> **(1)** The principal extinguishing agent shall be a foam suitable for the type of equipment to be used, and
>
> (a) the foams provided as principal extinguishing agents, on the date acquired, shall meet the latest relevant performance specifications of CAN/ULC-S560 or of CAN/ULC-S563;

CAN/ULC-S560 sets out the performance requirements for aqueous film-forming foam (AFFF) liquid concentrates that are used by Canadian airport operators.

CAN/ULC-S563 sets out the performance requirements for film-forming fluoroprotein (FFFP) foam liquid concentrates. The standard is currently being revised by the Underwriters Laboratories of Canada (ULC) Committee, which comprises various members including, but not limited to, foam manufacturers, users, and federal government departments, including Transport Canada, Environment and Climate Change Canada and the Department of National Defence. The purpose of the revision is to produce a standard that would allow the use of fluorine-free foams, which are more environmentally responsible products.

CAN/ULC-S560 (AFFF) and CAN/ULC-S563 (FFFP) are both incorporated by reference in the CARs. The incorporation is dynamic; therefore, any changes brought to either standard are automatically incorporated into the CARs.

Prior to the coming into force of the revised CAN/ULC-S563, Transport Canada is advancing the use of fluorine-free foam through the issuance of a national exemption to section 303.08 of the CARs that allows a Canadian airport operator to elect to transition to a fluorine-free foam.

7. ***How have the responsible departments – Environment Canada and Climate Change, Health Canada, Transport Canada and the Department of National Defence – identified potential sites of PFAS contamination? Please provide each Departments' criteria for investigation, and a list of sites clearly depicted on a map or with GIS coordinates which have been identified as confirmed or potential sites of PFAS contamination.***

Potential PFAS sites were identified by conducting a review of historical information, which included both Transport Canada-owned and transferred airports, to determine the presence or absence of a former fire-training area(s) (FFTAs) at an airport. Following this, sites were categorized by priority using a PFAS Prioritization Tool that ranked sites based on various factors, such as risk, site conditions and potential for off-site impacts, to identify the sites that posed the highest risk to human health and the environment that will require further assessment.

Depending on the ownership of the airport, Transport Canada's assessment approach varies.

Approach #1 Transport Canada-Owned Airports - This applies to the 18 Transport Canada-owned and operated, as well as the 23 leased National Airport System (NAS) airports that had former fire training areas. These sites were prioritized for action based on risk, site conditions, and potential for off-site impacts; however, proximity to off-site private drinking water wells elevated sites for immediate action. When additional assessment is warranted, Transport Canada undertakes Steps 1 through 5 of the government-wide 10-Step process (A Federal Approach to Contaminated Sites) to identify and assess whether a site is contaminated by conducting a Phase I (historical review) and/or a Phase II Environmental Site Assessment in accordance with the CSA Group, formerly Canadian Standards Association, requirements.

Approach #2 Transferred/Divested Airports - This applies to 107 airports (which includes three NAS airports) that were divested (i.e., sold) to a third party starting in the mid-1990s. Of the 107 airports, 83 had former fire training areas. Twelve sites were sampled for PFAS for various reasons primarily related to divestiture commitments. The remaining sites underwent a screening step to identify the highest risk sites for potential off-airport PFAS contamination. Proactive presence/absence sampling at the airport property boundary was undertaken to determine the risk of PFAS migrating off-site of transferred airport property. Sampling results

identified 13 sites with PFAS contamination confirmed above Health Canada and Environment and Climate Change guidelines/screening values at the property boundary.

To ensure that a consistent site assessment process was undertaken across Canada, an internal guidance document for both Transport Canada-owned and transferred airports was developed.

As a federal department, Transport Canada is required to provide information regarding its contaminated sites on the Federal Contaminated Sites Inventory (FCSI) in compliance with the Treasury Board Reporting Standard on Real Property. Transport Canada uses the FCSI to publicly report its contaminated sites. Sufficient information needs to be known about a site to confirm whether it is considered contaminated. According to Treasury Board Policy on the Management of Real Property, a contaminated site is defined as a site at which substances occur at concentrations: (1) above background levels and pose or are likely to pose an immediate or long-term hazard to human health or the environment, or (2) exceeding levels specified in policies and regulations.

At this time, Transport Canada is providing a partial list of sites. The current list of potential and confirmed PFAS sites at Transport Canada-owned airports, with latitudinal and longitudinal coordinates, is attached. Additional time is required to seek approval from the transferred airports that are not owned by Transport Canada to release the information requested. As a result, Transport Canada intends to provide this information in early February 2022.

If an FCSI number is included for the site in the Federal Contaminated Sites Inventory # column, denoted in the list, then information regarding the site is publicly available.

8. ***What data is available from monitoring programs undertaken by or on behalf of Environment Canada and Climate Change, Health Canada, Transport Canada and the Department of National Defence to detect or measure the levels of PFOS, PFOA, and LC-PFCAs or any other PFAS in Canada? How do each of the departments make the data, results and findings from monitoring programs available to the public and to local health agencies? What other environmental and health monitoring has been completed on PFAS beyond those in the PFOS, PFOA and LC-PFCAs? Please provide the data, particularly for landfills, drinking water sources and wildlife monitoring. How is this data released or made available to local health agencies and to the public? Please specify if the data is publicly and freely available and how it can be accessed.***

Data from environmental site assessments and presence/absence sampling include laboratory analysis of various environmental media (i.e., groundwater, surface water, soil and sediment) for a suite of specific PFAS compounds analyzed by an accredited laboratory. A request to access this data can be made to Heather Osborne, Manager, Environmental Evaluation and Mitigation at 613-979-2067 or via e-mail at heather.osborne@tc.gc.ca. Alternatively, a request under the

Access to Information Act is another option. Information relating to off-airport investigations may contain personal information of property owners that cannot be released as described in the *Privacy Act*.

Transport Canada does not have any PFAS data related to engineered landfills, drinking water supply sources or large-scale wildlife monitoring studies. Limited data for PFAS in earthworms, fish tissue and small mammals (e.g., voles and mice) has been collected at several airports in support of carrying out a risk assessment.

Depending on the potential for human health exposure, Transport Canada notifies the local public health agency and provides them with the monitoring results. If the results conclude that PFAS is migrating off-airport property, Transport Canada will also compare the monitoring results to PFAS criteria developed by the province and provide the data to the provincial environmental agency.

Transport Canada does not conduct health monitoring for PFAS.

9. In how many instances have each of Environment Canada and Climate Change, Health Canada, Transport Canada and the Department of National Defence requested extensions of up to 300 days to reply to Access to Information requests from the public when those requests pertain to reports, studies or monitoring results that are complete and / or have been the subject of issued statements by that Department? Please provide specifics.

Transport Canada has no instances of requesting extensions of up to 300 days to reply to an Access to Information request pertaining to reports, studies or monitoring results regarding PFAS.

14. How does CEPA and its regulations apply to the movement of waste containing PFAS into Canada from US and other countries? What information is collected and made available to the public regarding the origin, quantity, frequency, treatment and disposal of these wastes? Please explain and provide supporting information

This question does not pertain to Transport Canada. Environment and Climate Change Canada is responsible for administering and enforcing the *Canadian Environmental Protection Act, 1999*.

Thank you for bringing your questions to the attention of the Commissioner of the Environment and Sustainable Development. I trust that the foregoing information is helpful.

Sincerely,

Minister of Transport | Ministre des Transports

Ottawa, Canada K1A 0N5

The Honourable Omar Alghabra, P.C., M.P.
Minister of Transport

c.c. The Honourable Steven Guilbeault, P.C., M.P.
Minister of Environment and Climate Change

The Honourable Jean-Yves Duclos, P.C., M.P.
Minister of Health

The Honourable Dominic LeBlanc, P.C., M.P.
Minister of Intergovernmental Affairs, Infrastructure and Communities

The Honourable Anita Anand, P.C., M.P.
Minister of National Defence

Mr. Jerry V. DeMarco
Commissioner of the Environment and Sustainable Development

Environmental Petition #0458 Question #7

List of Sites with Confirmed or Potential PFAS Contamination as of November 2021

	Site Name	Federal Contaminated Sites Inventory #	Province/ Territory	PFAS Contamination	Lat	Long
1	St. Anthony Airport Former Fire Training Area	00026118	NL	Confirmed	51.389914	-56.080918
2	Wabush Airport Former Fire Training Area	00026099	NL	Confirmed	52.929679	-66.873799
3	Sept-Îles Airport Former Fire Training Area	00026102	QC	Confirmed	50.219167	-66.251667
4	Schefferville Airport Former Fire Training Area	00026103	QC	Confirmed	54.810556	-66.807778
5	Îles-de-la-Madeleine Airport Former Fire Training Area	00026110	QC	Confirmed	47.421389	-61.783889
6	Kuujjuaq Airport Former Fire Training Area	00026112	QC	Confirmed	58.098333	-68.428333
7	Churchill Airport Land Treatment Unit (LTU) - Q Area Storage Tanks	13252002	MB	Confirmed	58.7438	-94.0716
8	Penticton Airport Former Fire Training Area	00026113	BC	Confirmed	49.464444	-119.604444
9	Port Hardy Airport Former Fire Training Area	00026126	BC	Confirmed	50.676389	-127.362778
10	Sandspit Airport Former Fire Training Area	00026096	BC	Confirmed	53.252222	-131.813118

	Notes
a	There may have been more than one Former Fire Training Area (FFTA) at an airport.
b	Of the 18 Transport Canada owned and operated airports, 9 airports had fire training areas and 1 airport has a Land Treatment Unit (LTU) with confirmed PFAS contamination.
c	8 of the 18 airports had no Former Fire Training Area.
d	Definition of a Contaminated Site[1]: a site at which substances occur at concentrations: (1) above background levels and pose or are likely to pose an immediate or long-term hazard to human health or the environment, or (2) exceeding levels specified in policies and regulations.
d	[1.] Treasury Board Federal Contaminated Site Inventory.
e	A Land Treatment Unit (LTU) is a geomembrane lined storage unit designed to contain the contaminated soil from the former fire training area.
f	Confirmed refers to sites where PFAS was detected in a concentration above screening values or guidelines.
g	Potential refers to sites where PFAS sampling has yet to be completed.

Environmental Petition #0458 Question #7

List of Sites with Confirmed or Potential PFAS Contamination as of November 2021

	Site Name	Federal Contaminated Sites Inventory #	Province/ Territory	PFAS Contamination	Lat	Long
1	Gander International Airport Former Fire Training Area	00026098	NL	Confirmed	48.93619	-54.579634
2	St. John's International Airport Former Fire Training Area	00339002	NL	Confirmed	47.6275	-52.746944
3	Charlottetown Airport Fire Training Area	00026114	PEI	Confirmed	46.28797	-63.122111
3	Charlottetown Airport Former Fire Training Area	00026115	PEI	Confirmed	46.288904	-63.130523
4	Halifax Stanfield International Airport Former Fire Training Area	00026101	NS	Confirmed	44.872273	-63.526538
5	Saint John Airport Former Fire Training Area	00026100	NB	Confirmed	45.30938	-65.885939
6	Greater Moncton Roméo LeBlanc International Airport Fire Training Area	00026116	NB	Confirmed	46.113267	-64.674761
6	Greater Moncton Roméo LeBlanc International Airport Former Fire Training Area	00026117	NB	Confirmed	46.1102	-64.676487
7	Fredericton International Airport Fire Training Area	04086002	NB	Confirmed	45.868333	-66.522222
8	Montréal-Mirabel International Airport Former Fire Training Area	00026104	QC	Confirmed	45.678611	-74.089722
9	Montréal-Pierre Elliott Trudeau International Airport Former Fire Training Area	06985001	QC	Confirmed	45.468865	-73.747621
10	Québec City Jean Lesage International Airport Former Fire Training Area	05871002	QC	Confirmed	46.792147	-71.388295
11	London International Airport Former Fire Training Area	10855002	ON	Confirmed	43.031821	-81.160511
12	Ottawa MacDonald-Cartier International Airport Former Fire Training Area	08708009 - Not Active	ON	Potential	45.311341	-75.650096
13	Thunder Bay International Airport Former Fire Training Area (original)	11943001	ON	Confirmed	48.366858	-89.316825
13	Thunder Bay International Airport Former Fire Training Area (1 and 2)	11943001	ON	Confirmed	48.373896	-89.340585
14	Winnipeg James Armstrong Richardson International Airport Former Fire Training Area	00026119	MB	Confirmed	49.919279	-97.248814
15	Regina International Airport Fire Training Area	00027731	SK	Confirmed	50.435278	-104.661667
16	Saskatoon John G. Diefenbaker Airport Former Fire Training Area North	00027680	SK	Confirmed	52.17944444	-106.6852778
16	Saskatoon John G. Diefenbaker Airport Former Fire Training Area South	00027681	SK	Confirmed	52.16777778	-106.685
17	Calgary International Airport Former Fire Training Area (Pre 1976)	00026120	AB	Confirmed	51.09932	-114.006985
17	Calgary International Airport Former Fire Training Area (Post 1976)	00027732	AB	Confirmed	51.11	-114.008889
18	Edmonton International Airport Former Fire Training Area	TBD	AB	Potential	60.119444	-128.811389
19	Prince George Airport Fire Training Areas	00026122	BC	Potential	53.88441	-122.68736
20	Victoria International Airport Fire Training Area	00026124	BC	Potential	48.64833	-123.438056
20	Victoria International Airport PFAS Impacted Soil Stockpile	00026125	BC	Confirmed	48.648333	-123.438055

	Notes
a	There may have been more than one Former Fire Training Area (FFTA) at an airport.
b	Definition of a Contaminated Site[1]: a site at which substances occur at concentrations: (1) above background levels and pose or are likely to pose an immediate or long-term hazard to human health or the environment, or (2) exceeding levels specified in policies and regulations.
b	[1.] Treasury Board Federal Contaminated Site Inventory.
c	Toronto Pearson International Airport, Kelowna International Airport and Vancouver International Airport Former Fire Training Areas have not been investigated.
d	Three National Airport System Airports (Erik Neilsen Whitehorse, Iqaluit and Yellowknife) were transferred to Territorial Governments and only Iqaluit has confirmed PFAS and is included in the transferred tab.
e	Confirmed refers to sites where PFAS was detected in a concentration above screening values or guidelines.
f	Potential refers to sites where PFAS sampling has yet to be completed.