

Pollution Prevention Project Summary: PFAS in Metal Finishing Wastewater

Project Summary:

The Vermont Department of Environmental Conservation (DEC) invites you to participate in a **voluntary, non-regulatory** project to identify and reduce per- and polyfluoroalkyl substances (PFAS) at your business. For this project, DEC will collaborate with up to six select businesses in Vermont engaged in the metals and/or aerospace industrial sectors, to reduce or eliminate PFAS entering your wastewater discharge. This project will occur Spring 2021 through Summer 2022.

Project Details: The following are the major elements of the P2 project:

1. Sampling:

DEC will collect up to 8 wastewater samples at your facility to characterize PFAS concentration. PFAS sampling data will be paired with flow data to determine PFAS mass loading. Sampling will occur in multiple rounds to assess PFAS variability in the wastewater discharge, and to allow for sampling of products or processes that may be contributing PFAS to the wastewater discharge. Sampling will be performed by DEC's sampling contractor using EPA Modified Method 537.1, in accordance with their EPA-approved Quality Assurance Project Plan (QAPP) and Health and Safety Plan.

2. Source Identification:

In parallel with wastewater sampling, DEC will conduct an assessment to identify wastewater sources of PFAS. The source assessment will include:

- Initial survey to collect baseline info, operations, point of contacts;
- At least one on-site visit and walkthrough to review operations, identify wastewater discharge points, and sources of process wastewater; and
- Detailed survey and follow correspondence to determine specific fluorinated products used and their dosage (if necessary); corresponding chemical information sheets, Safety Data Sheets, and manufacturers; and flow rate data.

Following data collection, DEC will:

- Perform follow-up research into products used to determine PFAS presence and concentration;
- Determine follow-up sampling locations to further quantify individual PFAS sources or PFAS concentration in certain process wastewater streams; and
- Perform follow-up sampling and calculations to quantify individual PFAS sources.

3. Source Reduction:

DEC and their Technical Assistance Expert (contractor) will use data collected during source identification and sampling to develop potential source reduction strategies to reduce or eliminate PFAS sources at each business. Source reduction strategies and implementation guidance will be provided to each business in the form of a report. Following successful identification of source reduction strategies, DEC will encourage each business to begin voluntary implementation.

DEC anticipates source reduction will likely focus on the following:

- DEC will perform a literature review and consult with businesses and suppliers on the availability of alternative "green" chemistries to PFAS containing products to identify products that are PFAS-free or contain less-toxic PFAS and outline next steps for assessing the feasibility of potential replacement products; and/or
- DEC will investigate operational strategies for businesses to eliminate or reduce PFAS wastewater sources. Strategies may include opportunities for optimization of chemical or product use to reduce use of PFAS

containing materials; changes to operations or maintenance practices to minimize or eliminate PFAS within process wastewater; best management practices to reduce PFAS use at the facility and introduced into the environment; and opportunities to reduce or capture PFAS in wastewater prior to its release.

4. Cohort Workgroup:

Throughout the duration of the project businesses will participate in a workgroup with other participating businesses, DEC, and their sampling and technical assistance contractors. The Cohort will consist of an initial project kick-off meeting and four quarterly group meetings coordinated by DEC. Cohort meetings will be used as a platform to:

- Share information on sampling, source identification, and source reduction findings;
- Present data and findings from sampling contractor;
- Provide group-wide technical assistance from the technical assistance contractor; and
- Provide other group-wide technical assistance to achieve improvement goals.

Level of Effort:

Your business should anticipate the following workload associated with project participation:

- Collaborate with DEC and their sampling contractor to establish sampling locations and schedule;
- Allow access to sampling contractor to collect wastewater samples in accordance with schedule;
- Coordinate with State to schedule and provide on-site visit and walk-through;
- Respond to requests for information from State on operations and products used;
- Support DEC and technical assistance contractor by responding to requests for information to scope source reduction strategies and implementation guidance; and
- Consider implementation of source reduction strategies.

Anticipated Project Timeline:

- **March – April 15, 2021:** Businesses to commit to project participation by signing MOU.
- **May 2021:** Project kick-off meeting with group.
- **May 2021:** Begin coordinating rounds of wastewater sampling.
- **June 2021:** Schedule site visit for source ID data collection.
- **June 2021 – Dec. 2021:** Periodic requests for data/information for source ID and further sampling.
- **August – Sept. 2021:** Group cohort meeting.
- **Oct. 2021 – March 2022:** Periodic requests for data/information for ID of P2 practices.
- **Nov. – Dec. 2021:** Group cohort meeting.
- **Feb. – March 2022:** Group cohort meeting.
- **May – June 2022:** Project closing - group cohort meeting.
- **June 2022:** DEC Report out to businesses with wastewater data, source identification results, and implementation recommendations.

How to Sign-Up:

We are looking for your commitment to participating in this project by **March 31, 2021**. Please let us know if you need an extension of this date. To sign up please sign the enclosed Memorandum of Understanding and Collaboration Agreement.

Questions?

Contact: Nick Giannetti, Pretreatment Coordinator
(802) 490-6186 / Nick.Giannetti@Vermont.gov
Wastewater Management Program, Watershed Management Division
Vermont Department of Environmental Conservation

Vermont Pollution Prevention PFAS Cohort

MEMORANDUM OF UNDERSTANDING AND COLLABORATION AGREEMENT

This Memorandum of Understanding (MOU) sets forth the terms and understanding between the _____ (Participant) and the Vermont Department of Environmental Conservation (DEC) to collaborate through the Pollution Prevention PFAS Cohort.

BACKGROUND AND PURPOSE

Sector-specific Pollution Prevention Cohorts are based upon the understanding that collaborating closely with a group of businesses committed to achieving measurable, substantive environmental improvements in the context of a knowledge- and resource-sharing network can build the capacity and conditions for best practices to spread widely throughout the sector. The goal of the Cohort is to improve the environmental sustainability of participating businesses, and to improve the overall environmental performance of the Vermont metal plating and aerospace business sectors, through the focus on the emerging contaminants per- and polyfluoroalkyl substances (PFAS).

PFAS COHORT OVERVIEW

In exchange for the business participating in the Cohort as described below, DEC will provide technical assistance, training, and other resources to support implementation of environmental improvements.

The Cohort will last for approximately 18 months, from April 2021 to September 2022.

Participation in the Cohort is voluntary.

There is no fee to participate.

I. COHORT PARTICIPATION REQUIREMENTS

With support from DEC, the Participant agrees to:

- a. Participate in Cohort activities, including:
 - i. Assessment of PFAS use in the manufacturing process;
 - ii. Sampling of wastewater and products for PFAS compounds;
 - iii. Attend four group-wide Cohort meetings;
 - iv. Collaborate with DEC on the scoping of pollution prevention strategies;

- b. Commit to one or more of the following pollution prevention goals, and work towards achieving it throughout the Cohort period:
 - i. Reduction of PFAS use in manufacturing processes;
 - ii. Reduction of PFAS released into the environment;
 - iii. Substitution of greener chemistries for PFAS-containing products;
 - iv. Elimination of PFAS compounds from the manufacturing process.
- c. Comply with relevant federal, state, and local regulations.

II. DURATION

This MOU shall begin upon the date both parties sign and may be modified or terminated by either party at any time by mutual agreement. In the absence of mutual agreement, this MOU shall end on September 30, 2022.

III. THIS MOU IS NON-BINDING

Nothing in this agreement creates any contractual relationship between DEC and the Participant, or any employees, contractors, or agents.

We, the undersigned, agree to this MOU.

Signature

Printed name

Title

Organization

Date

Signature

Printed name

Title

Organization

Date

Signature

Printed name

Title

Organization

Vt. Dept. of Environmental Conservation

Date