

Soil Management Plan

Gustavus Airport Maintenance Shop Cistern

State Project No. SSAPT00093

May 12, 2022

Prepared by
DOT&PF
Southcoast Region



Purpose

This Soil Management Plan (SMP) provides direction for managing potentially contaminated soil during the Alaska Department of Transportation and Public Facilities' (DOT&PF) Gustavus Airport Shop Cistern Project at the Gustavus Airport (GST) in Gustavus, Alaska. The planned work includes installing a 16'x16'x8' water catchment cistern adjacent to the existing maintenance shop at the GST.

Scope

This SMP includes procedures for the handling and storage of PFAS-contaminated material, including excavated soil, asphalt, and concrete; transport of contaminated materials; stockpiling of contaminated materials; equipment decontamination; health and safety; and reporting procedures. The procedures contained herein do not preclude additional site- or project-specific requirements required to protect the health and safety of workers. The Contractor is responsible for performing due diligence to ensure the safety of their employees.

Special note: While asphalt and concrete are not expected to be disturbed during this project, it is the intention of the department to ensure this plan is all encompassing as work being performed is near concrete and asphalt.

Procedures

In total, there will be approximately 50 cubic yards (c.y.) of PFAS-contaminated material. Samples collected in October 2021 indicate PFAS were detected at concentrations below the Alaska Department of Environmental Conservation (DEC) migration to groundwater soil cleanup level, as reported in 18 AAC 75.341.

There is potential for three types of material to be produced during project work: soil, asphalt, and concrete. All three material types will be produced through excavation. Soil will either 1) be placed back where it came from at the same approximate area and depth or 2) will be stockpiled in the PFAS-contaminated material storage cell located at the Gustavus airport near the southeastern end of runway 11/29. Asphalt and concrete removed during excavation will be stockpiled in the PFAS-contaminated material storage cell located at the Gustavus airport near the southeastern end of runway 11/29.

Excavation Procedures

1. Excavation activities shall be performed in a manner that minimizes worker exposure and protects the environment from site contaminants.
2. The entire 20'x20' construction area adjacent to the maintenance shop is to be considered contaminated. Hazard barriers will be set up to delineate the work area from other non-work areas.
3. Soil will be excavated with an excavator. Asphalt and concrete will be sawcut, broken into chunks, and removed from the ground.
4. If excavated soil is reused, it will be returned as close to its original location as practicable. If contaminated soil that is to be returned to its original site needs to be temporarily stored, it will be

placed in a lined containment area near where the material came from, covered and flagged until it can be backfilled. No contaminated soil will be moved into a zone of lesser contamination, and movement of contaminated soils will be minimized where possible.

5. Any contaminated material that will be stockpiled long-term (not in temporary stockpiles, such as soil that will be returned to its original location), will be loaded into dump trucks and transported to the PFAS-contaminated material storage cell near the end of runway 11/29.
6. All equipment leaving the PFAS-contaminated work area will be decontaminated (see Decontamination Procedures below) before driving to the stockpile area or a lesser contaminated area of the airport, if necessary. If equipment comes into contact with contaminated soil in the stockpile area, it will also be decontaminated prior to leaving the stockpile area.
7. Operators will work from the safety of their respective equipment cabs. Manual labor to excavate soils is not expected. If manual/ground labor is necessary, personnel will wear proper PPE and follow decontamination procedures.
8. Dust will be controlled by spraying all disturbed areas, stockpiles and unpaved roads with PFAS-free water. If borrow material is to be hauled to the project site, it shall be kept slightly moist or covered to prevent wind transport during hauling. Water trucks will be used, if necessary, to increase the soil moisture levels, and water will be reapplied as necessary to keep dust to a minimum. The minimum amount of water will be used to perform dust control. Reduced speeds will be used on un-paved areas. Material loading will be limited during high winds. Water used for dust control must be PFAS-free.
9. DOT&PF does not expect excavation dewatering to occur. If excavation dewatering is needed, the Contractor will obtain a DEC Excavation Dewatering General Permit. BMPs for dewatering in contaminated soil areas will be outlined during that process.

Decontamination Procedures

All heavy equipment used in the PFAS-contaminated work area that comes into contact with contaminated material will be brushed to remove visible soil before leaving the work area. If equipment comes into contact with contaminated material in the stockpile area, it will also be brushed to remove visible soil prior to leaving the stockpile area. Dump truck beds, unless contaminated material may fall from the bed while driving in/through uncontaminated zones, will not be decontaminated in between contaminated loads; they will be decontaminated before hauling uncontaminated loads and at the end of each day. If hand tools are used, they will be brushed to remove visible soil as well. All decontaminated equipment will be visually inspected for residual contamination periodically to ensure decontamination procedures are effective. A vehicle/equipment wash will be established in front of the DOT&PF building. Both areas are known AFFF deployment areas and have tested above DEC regulatory levels. Because equipment is already being decontaminated, regular washes are not required but good practice.

A decontamination station will be set up at the edge of the work area for personnel entering and exiting the area. When exiting the work area, personnel will brush any contaminated soil from their work clothes, boots, and PPE (if applicable). Any used PPE will be placed into a covered trash receptacle, and full trash bags will be disposed of as inert solid waste.

PFAS Stockpile Information

If PFAS-contaminated material needs to be stockpiled long-term, it will be stockpiled in the PFAS-contaminated material liner cell located on the northeast side of the main runway, Runway 11/29 (58° 25' 15" N 135° 41' 30" W). The stockpile is already established and demarcated from the Gustavus Airport Apron, Runway, Taxiway, and Pavement Rehabilitation project. The specifications for that stockpile are repeated here and are applicable for this project as well.

The PFAS-contaminated material liner cell is on DOT&PF property in the former location of firefighting training and a known AFFF dispersal area. The site is located approximately 2,200' from the Airport Terminal well and approximately 3,400' from the NPS well. The closest surface water is approximately 190' from the storage site. An elevated pad was constructed under the liner and PFAS-contaminated material to prevent inundation by airport-wide flooding events.

Stockpiling will meet all specifications listed in 18 AAC 75.370, in addition to the specifications listed here:

1. Excavated material must be segregated based on the intended cleanup alternatives and the specific hazardous substance present. Contaminated asphalt will be stockpiled separately from contaminated soil and contaminated concrete. The stockpiles at the Gustavus Airport already contain segregated areas of contaminated asphalt and soil. Material added to the stockpile by this project must be segregated by type and placed with the same type already present in the pile (soil from this project with existing soil; asphalt with existing asphalt). The DOT&PF GST Maintenance Foreman will assist the contractor to identify the correct stockpiles for each material type.
2. Stockpiles will be completely covered and weighted during hours of inactivity including during project construction (e.g.: evenings and weekends).
3. Efforts will be made to minimize water from rain or weather events from entering the stockpile during active work.
4. Stockpiles will be regularly inspected by the DOT&PF. See Inspections and Reporting Procedures below.
5. DOT&PF does not anticipate leachate will be generated at the stockpile during rain events because contaminated material will be securely covered. In the unlikely event that leachate does occur, it will be pumped out of the stockpile area and containerized and DEC will be notified.

Health and Safety Procedures

Before project work begins all personnel new to the site (Contractor's staff, engineering staff, inspectors, etc.) will be required to review the PFAS training handout produced by DOT&PF. The Contractor will keep a log of all personnel who have received this training handout.

PPE will be required for all personnel working on the ground in excavation areas known to be contaminated with PFAS. PPE selection will be based on work-task requirements and potential exposure. PPE that may be required are: standard work clothes or cotton overalls; reflective, high visibility safety

vest, shirt, or jacket; safety-toe boots; safety glasses; hard hat; gloves; and disposable nitrile gloves (required for any personnel that may have dermal contact with contaminated material).

Inspections and Reporting Procedures

The PFAS-contaminated material liner cell will be inspected daily by the DOT&PF during work days when actively filling. Inspections will be made to assess:

- the top liner remains intact with no holes or tears,
- excessive water is not accumulating on top of the cell or around the base of the cell,
- wattles are in place against the base of the material pile with 2’ overlap,
- ropes and sandbags holding down top liner are in good condition and functioning as intended,
- signs are in place and legible, and
- safety warning devices (traffic cones or bollards) are present and upright.

The Contractor will submit to the DOT&PF maintenance foreman monthly during construction and at project completion a summary of all contaminated material movement (estimated quantity of each type of material in cubic yards that was placed in the stockpiles and placed back in the ground where it came from and those locations). See table below for an example. The DOT&PF Maintenance Foreman will submit this summary within a week of receiving to DOT&PF Environmental and DOT&PF Statewide Aviation PFAS Program Manager, Sammy Cummings.

DATE	MATERIAL TYPE (soil, asphalt, or concrete)	QUANTITY (cu. yards)	FROM (area/STA or area/depth)	TO (stockpile or area/depth)
Ex: 5/25/2021	asphalt	35	Taxiway F, STA 1+00 L to STA 2+60 L	North Stockpile
Ex: 5/25/2021	soil	1	Vehicle Gate B, 5’	Temporary stockpile near Vehicle Gate B
Ex: 5/27/2021	soil	1	Temporary stockpile near Vehicle Gate B	Vehicle Gate B, 5’

As outlined in the Stockpile Procedures above, Gustavus DOT&PF staff will conduct stockpile inspections during storage. DOT&PF Statewide PFAS Program Manager will submit documentation of those inspections with photos biannually in May and October each year via email to DEC.