Michigan **Aqueous Film Forming Foam** Collection Program



Per- and Polyfluoroalkyl Substances (PFAS)

What are they?

- Strong Carbon-Fluorine Bonds
- Surfactants
- Highly Stable
- Repel Water, Oil, Fat, and Grease
- Began Developing in 1940s
- 5,000+ Compounds Today

Why the concern?

- Widespread through the ecosystem
- Don't Break Down Easily Hard to Get Rid of
- Bioaccumulate Build Up in Our Bodies
- Some PFAS May Affect Health
- Some emerging science/information
- Lack of Federal Standards



PFAS Uses



https://www.sixclasses.org/videos/pfas





Fire Fighting Foam

- Identified as significant source of PFAS
- 2018 State Fire Marshal Bureau surveyed fire departments
- 2018 MDOT surveyed commercial airports
- Ongoing discharges formerly required training
- Collection and disposal program was needed
- What are the Green Alternatives
 - -Fluorine free foams (Class A)
 - Additional information available MPART website







2017-18: 700 + departments surveyed

How much material was/is out there?

340 departments reporting having Class B on site & available for pickup

Volume expected - 45,000 gallons with 70% of that volume in 5-gallon containers.

Municipal airports invited to participate



Collection Efforts

- 2018 Legislative Appropriation \$700,000
- The State's AFFF collection efforts were intended to mitigate the risk of future releases of AFFF into Michigan's environment.
- April 2019 short list bid process for collection services
 - -Moved forward with \$1.4 Million contract
 - EGLE matched the legislative appropriation
- Contract signed September 2019
- First pickups started December 2019





Pickup Program Started December 2019



The Operation

- Contractor called pickup location 2 weeks in advance
 - -Provide an estimated pickup date; confirms volume.
- Contractor called 2 days in advance of actual pickup
 - Re-confirms volume; sets pickup date & time
- Containers were consolidated in Detroit for storage
- Sorted, overpacked as needed and shipped to US Ecology facility in Idaho treatment & disposal
- Unknown volume still exists at airports and fire departments.











The Onsite Process





Consolidate

Inventory

Document

Prepare for shipment









Lessons Learned

- Build trust with the local departments
- Get to the right person: The vast majority of departments are voluntary
- Be patient
- Stuff happens- be prepared to follow up
- 30 gallons may end up being 130 gallons



Phase 1 Close-out Report

- Completed pickups 355 locations.
- Collected 51,400 gallons of material.
- Included a 45-day COVID shut down.
- Closed out Phase 1 December 2020
- Governor signed HB 4389 (PA 132 of 2020)
 - -Fire departments report discharges of AFFF containing PFOA/PFOS
 - -EGLE provides ongoing collection program as funding allows





Phase 2

• 14 locations on the waiting list

• Issued new contract- Phase 2 - September 2021

• Initial amount was \$100,000. Added \$50,000



Phase 2 Progress

- 38 locations picked up and 4770 gallons collected
- Largest pickup in Phase 2 330 gallons
- Pickups primarily in the southern half of Michigan: 2 locations in upper peninsula
- Funding exhausted end of March 2022
- 7 locations remain on list



What's Next

- Educational video for Michigan Firefighters about the proper use, handling, and storage of Class B AFFF
 - -Prohibits fire training with Class B AFFF
 - -Video promotes the collection program

- Working with Legislature to add funding for the program
 - Contract is a 4-year contract.





CONTACT INFORMATION

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