

ENVIRONMENTAL SERVICES

PFAS Treatments available at Lambton, Ontario, Facility

The family of compounds known as per- and polyfluoroalkyl substances (PFAS) used in consumer and industrial manufacturing are persistent in the environment and are comprised of over 6,000 compounds. The most widely known compounds in this group are perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA). However, the list of compounds of interest is growing quickly as commercially available standards are developed. Clean Harbors is versed in the nomenclature, analysis methods, treatment and disposal of these compounds. We guide customers through the process of testing, treatment and final deposition and destruction of their materials and media.

PFAS Incineration

With nearly 70% of North America's incineration capacity, our incineration facilities in the U.S. and Canada, such as our Lambton location, ensure that we can meet any incineration requirement from our customers. Clean Harbors' kilns are capable of incinerating solids, liquids and sludge, and our thermal treatment systems' advanced technology can destroy 99.9999 percent of all hazardous constituents. We are well situated throughout the U.S. and Canada to manage all disposal requirements related to PFAS, to include incineration of Aqueous Film Forming Foam (AFFF), Investigation Derived Waste (IDW) or remediated and treated soils and waters.

PFAS Alternative Options (Thermal Destruction)

Another alternative to incineration would be our state-of-the-art Thermal Destruction Unit (TDU), also at Lambton. This unique facility has the capability to offer cost-effective disposal of PFAS-related streams through thermal treatment and on-site disposal. Our site operates a hazardous waste landfill, TDU and Liquid Injection Incinerator. Our Indirect Fired TDU runs at a temperature of 450 degrees Celsius, therefore thermally treating PFAS from contaminated solids. The PFAS from the solids would end up in the vapor and condensate in the unit. The vapor from the unit is cooled, scrubbed and re-condensed, which is then piped directly to our on-site hazardous waste incinerator where it, along with the condensate from the TDU, is destroyed. The ash from our incinerator is stabilized on site and placed directly into our on-site landfill, thereby eliminating any downstream liabilities.



70%



of North America's incineration capacity

99.9999%

of all hazardous U.S. materials destroyed

1100°C



thermal destruction

The landfill design includes a hydraulic control layer (i.e., drainage blanket) at the base of the waste cells, which is connected to a leachate collection trench along the landfill perimeter. The design incorporates the use of drainage stone, geotextile and geocomposites. It creates a pathway to facilitate the flow of leachate from the landfilled waste to the perimeter leachate collection trench. Sumps equipped with pumps are installed to withdraw leachate from the trench, and move the leachate, through a force main, to a leachate pumping station that in turn transfers the leachate to an above-ground leachate storage tank and/or the existing covered leachate storage ponds. The leachate is then disposed of through incineration at the on-site liquid hazardous waste incinerator. All leachate at the Clean Harbors Lambton site is incinerated; nothing is discharged or leaves the site.



CleanHarbors®