

**New York State Department of Environmental Conservation
Notice of Incomplete Application - This is NOT a Permit**



Application ID: 5-5330-00038/00027

Batch Number: 1018418

Facility: Environmental Soil Management of New York LLC dba ESMI A Clean Earth Company
304 Towpath Rd
Fort Edward, NY 12828

Contact: ENVIRONMENTAL SOIL MANAGEMENT INC
304 TOWPATH LN
FORT EDWARD, NY 12828-1754

Owner ID: 39045

Permit(s) Applied for: 1 - Article 27 Title 7 Solid Waste Management

Project Location: in FORT EDWARD in WASHINGTON COUNTY

Your application for Permit is incomplete. The following items are required:

1. We have no record of receiving or approving a modeling protocol for this project. Please provide a modeling protocol.
2. The PFAS ‘deposition’ modeling methodology indicated in Section 3.5.1 and used in this analysis is not approved for use in New York State for regulatory purposes. While deposition “Method 1” may be allowed under the default option within AERMOD, it is only used when a significant fraction of the emitted particles have sizes greater than 10 μm , or when the emitted particle size distribution is explicitly known. The information in the report does not support either of these conditions.
3. Table 1 on PDF Page #7: The list of PFAS compounds for which the Boiling Points (BPs) are provided is incomplete in comparison to the full analyte lists for the newest sampling techniques available for measuring the concentrations of various PFAS compounds in the different environmental media (e.g., soil water/liquid, air). It also likely would not represent all the PFAS compounds present in the contaminated soil that will be processed at the facility during this R&D project. Please consider the following:
 - It is known that the energy needed to volatilize the PFAS compounds (and thus their BPs), as well as their adherence to the soil’s organic content (Total Organic Carbon or TOC), all increase as the length of the PFAS compounds within the same class increases. This can be seen in the increasing BPs of the top six PFAS compounds listed in Table 1 (which are all carboxylates increasing by one addition Carbon (C) in length starting with the 5-C chain length Perfluoropentanoic Acid (PFPeA) at the top and extending through the 10-C chain length PFDA).
 - It is also known that the sulfonates class of PFAS adhere more tightly to the TOC in the soil than the carboxylates of the same C-chain length do. Only the 8-C chain length sulfonate of PFOS is included in the Table 1 list (i.e., the bottom PFAS). This relationship can be seen when comparing the BPs of the 8-C chain length PFAS species of these two classes (i.e., PFOA vs PFOS).
 - Therefore, if there are larger sulfonate PFAS compounds contaminating the soils being processed (similar to what’s being indicated for the carboxylates), they’d be believed to have even higher BPs associated with them.

Given the much more expanded list of analytes associated with the newer PFAS test methods in the various environmental media, the testing that will be performed on the soils being processed by ESMI will result in additional PFAS compounds that are present in the soil for which the BPs need to be obtained and provided to the Department, so it can be assured that the operating temperature of the Primary Treatment Unit (PTU) is established at a level exceeding the highest BP of the various PFAS compounds present.

4. Table 2 on PDF Page #11: The AGC for CF4 derived by the DOH is incorrectly listed in Table 2. The interim CF4 AGC that the DOH derived is 0.33 mg/m³ (i.e., 330 ug/m³), not the 0.332 ug/m³ that is indicated in Table 2.

The term “max annual hourly dispersion concentration” used in the Table 2 column header appears to be a typo, as it is referencing the maximum annual dispersion concentration. This term is also used in a number of other instances in the combined document, such as the headings of various figures contained in Attachments A & B. The superscripts referenced in the notations associated with Table 2 are not included in the table itself to note where they are applicable.

5. Paragraph 2 on PDF Page #12: The modeling will very likely need to be re-run, as there will be many additional PFAS compounds that will be measured/quantified beyond those included in this submittal (due to the limited number of PFAS compounds represented). So, the assumption is that the total combined PFAS sum will be greater than what was used in the modeling performed and will need to be used in the re-running of the modeling (or at minimum used to adjust the results based on the relative increase in the total combined PFAS emission rate).

6. Attachment A & B Tables on PDF Pages #45 & 83, respectively: The tables list “Representative” PFAS at 0.1 g/s and the associated modeling results. It is not clear what the 0.1 g/s “Representative” PFAS emission rate is and how it is determined.

7. The facility is located approximately one mile from the Hudson Falls Environmental Justice and Disadvantaged Communities area, as shown on the maps available at:

<https://dec.ny.gov/get-involved/environmental-justice/gis-tools> and

<https://www.nyserda.ny.gov/ny/disadvantaged-communities>. Pursuant to DEC Commissioner Policy 29, Environmental Justice and Permitting, available here:

<https://dec.ny.gov/regulatory/guidance-and-policy-documents/commissioner-policy-29-environmental-justice-and-permitting>

DEC’s initial screening indicates that the facility may have potential adverse environmental impacts on these areas and, as such, you must prepare a Public Participation Plan (PPP) that satisfies the requirements of CP-29 Part V.D. Please plan to hold one public informational meeting, as detailed in the attached PPP template, within the DAC/EJ area and have a records repository available for public review at the library in Hudson Falls.

In accordance with 6 NYCRR § 621.3(a)(3), your application is incomplete until a PPP has been prepared and submitted to DEC for review and approval.

***Please submit requested information by April 15, 2024
No further action can be taken until all of these materials are received.***

Contact Person:

BETH A MAGEE
NYSDEC
232 Golf Course Rd
Warrensburg, NY 12885

Signature: _____

Date: March 14, 2024