

May 7, 2021

Rich Walton
Westmoreland Sanitary Landfill LLC
111 Conner Lane
Belle Vernon, PA 15012-4519

RE: Additional Information Deficiency Response
Plan Approval Application PA-65-00767C
Westmoreland Sanitary Landfill LLC
Rostraver Township, Westmoreland County

Dear Rich Walton:

As a follow up to the Additional Information response (Response) dated February 4, 2021, from Civil Design Solutions, Inc. on behalf of Westmoreland Sanitary Landfill (“WSL”) this letter is to inform WSL that the Department of Environmental Protection (“Department”) has yet to receive a fully adequate response for the following information requested by the Department in the November 12, 2020, letter (Deficiency Letter):

- The Deficiency Letter asked the applicant to provide: “The state of the radionuclide emissions: particulate, gaseous, or other (please specify) and estimates of emissions for each state.” Attachment 1 of the Response included “less than unity” calculations prepared by Perma-Fix Environmental Services. The provided calculations do not appear to be correct; specifically, the conversion factor of 86,400 minutes per day does not appear to be correct. Please provide a clarification for this conversion factor and revised “less than unity” calculations. The response should also include the bases (including data, manufacturer guarantees, etc.) for all assumptions, including any assumptions regarding control efficiency for radionuclides.
- Page 2 of the Response states: “Potential radionuclide emissions consisting of Radium will be in the form of particulate matter as radium-226 and radium-228. Radium exists in a solid state and if emitted through the evaporator would be in the form of a particulate or particle.” Provide a reference or references that support this statement.
- Page 3 of the Response states: “Evaporator Mist Elimination – the proposed evaporator includes a three-stage high efficiency mist eliminator which removes 99% of total dissolved solids (TDS), which are considered particles less than 2-micron, that may be present within the leachate. Therefore, any potential radium-226 or radium-228 within particles 2-micron and smaller would be removed during the evaporator process at a 99% efficiency. The proposed system evaporates approximately 90% of the leachate passing

through with and approximate 10% (including the 2-micron and smaller particles) discharge which will be continuously collected in a dual-contained storage box adjacent to the evaporator.” Provide a demonstration and supporting information that the mist eliminator removes 99% of TDS and that radium -226 and radium-228 would be removed during the evaporation process at a 99% efficiency.

- Page 2 and Page 4 of Attachment 3 of the Response regarding perimeter monitoring states: “Each week, the results of the filter analysis will be compared against the Nuclear Regulatory Commission’s (NRC) air discharge limits for radium-226 and radium 228.” Specify the NRC air discharge limits and cite the regulation where they can be found. Specify the method of calculation for showing compliance with the limits (ex. NRC unity rule). Provide a sample calculation. Will the method of calculation and associated assumptions showing compliance with the NRC air discharge limits differ from the method of calculation and associated assumptions for the NRC unity rule calculations at the evaporator stack? Clarify the proposed temporal coverage of the perimeter monitoring. Will the perimeter monitors operate on a continuous basis? If the perimeter monitors are not proposed to operate continuously, describe in detail the length and frequency of the periods when perimeter monitoring will not be operating and provide the bases for not operating.
- Page 2 of Attachment 3 of the Response regarding perimeter monitoring states: “The locations of the air monitoring devices were selected based upon a detailed review of the existing and proposed structures and topography, facility and property boundaries and prominent wind directions.” Please explain in detail how the monitoring locations were selected. Provide the procedures, documentation, and references used in the “detailed review of the existing and proposed structures and topography, facility and property boundaries and prominent wind directions”.
- Page 3 of Attachment 3 of the Response regarding area monitoring states: “Each quarter the results will be compared against the Pennsylvania gamma exposure limits to members of the public”. Specify the Pennsylvania gamma exposure limits and cite the regulation where the limits can be found.
- Page 2 and Wind Rose Plots of Attachment 3 of the Response – Demonstrate that the wind rose plots “developed from a 30-year data set (1961 to 1990)” are representative and applicable to developing a radiation monitoring plan at the landfill. Explain justification for, among other things, proximity to the landfill, topography, and the dates of the data set.
- Attachment 3 of the Response – Perimeter Monitoring and Area Monitoring - Provide the basis for determining the height of the monitoring equipment and the distance of the equipment from the evaporator.
- Attachment 3 of the Response - Perimeter Monitoring and Area Monitoring – Describe the potential effects of the elevated landfill cell(s) topography on monitoring the

radionuclide emissions from the evaporator in relation to each chosen monitoring location.

- Attachment 3 of the Response - Perimeter Monitoring and Area Monitoring and Wind Rose Plots – The wind rose plots indicate that the prevailing winds are W in February and March, W/NW in April, and W/SW in October, November, and December. The downwind locations of the proposed monitoring were chosen for prevailing SW winds. Demonstrate that the proposed plan provides adequate monitoring during the months when the prevailing wind is W, W/NW, and W/SW.
- Attachment 3 of the Response – Provide a site drawing/aerial photo that depicts and identifies the monitoring locations, fence line, permit boundary, and the proximity of occupied buildings/residential structures near the landfill.

Please provide the above requested information within (60) days from the receipt of this letter. The response should be in both hard copy and electronically and sent to my attention by email at mjativa@pa.gov. As discussed, this letter is not a final action of the Department; final action on the pending permit application will depend on, among other things, the data and other information contained in the response to this request.

Sincerely,

Melissa L. Jativa/MLJ

Melissa L. Jativa
Environmental Engineering Specialist
Air Quality Program

CC: AQ File: 65-767
SWRO J. Miller
SWRO K. Halloran
OCC M. Heilman
OCC J. Herman
SWRO AQ M. Gorog