

Suggested Comments on plans to evaporate 45,000 gallons of toxic leachate at Rostraver landfill

Deadline: June 9, 2020

Email comments to: _____

Project Name: Proposed Plan No. 65-00767C for Air Pollution Emissions at Westmoreland Sanitary Landfill

1. Extend Deadline and Request Virtual Hearing

Ask to extend deadline at least another 30 days until July 8.

Request an on-line virtual public hearing prior to July 8.

Reasons:

- a. **COVID-19 problems make it difficult for citizens to participate in the required comment process.** Note that the EPA in a March 26, 2020 memorandum allowed polluting industries to delay sending reports and be non-compliant in emissions due to COVID-19. Citizens should be allowed at least more time and options to comment on proposed pollution permit.
- b. **The proposed evaporation adds substantial pollutants that must be considered in relation to current air quality problems in the area.** This requires more time.
- c. **This proposal makes a big change in operations of any landfill, much less a facility, such as Westmoreland Sanitary Landfill (WSL) with a record of many previous problems and violations.** The risks of allowing industrial landfill leachate evaporation require time for proper evaluation.
- d. **The proposal is complicated because it involves evaporation of leachate that will constantly change based on substances accepted by the landfill and the heterogeneous nature of current landfill waste.** Citizens need to hear DEP staff explain features of the permit, as they do at the start of public hearings.

2. Air quality during COVID-19 requires special protection

Air pollution impairs responses to COVID-19, a respiratory virus. Several studies show significantly more severe illness and increased death rates from COVID-19 for people living in areas with increased air pollution. The kinds of pollution in those studies include exactly the pollutants in the evaporation permit, such as PM-10 and PM 2.5. This is the wrong time to increase emissions in a region with current air problems.

3. WSL should NOT be assumed to be in an area of attainment for air pollution.

Permit authors provided no evidence to claim that air emissions from the evaporator should not be considered as adding to serious air pollution problems in the region. Also, no evidence was provided to support a statement in the memo letter sent April 30, 2020 from DEP Air Quality Specialist, Melissa Jativa, to the DEP Air Quality Program regarding a review of the permit application when she wrote, "Westmoreland Sanitary Landfill is located in an area of attainment for all NAAQS."

I challenge the above assumption on several grounds:

- a. **WSL is located in a township adjacent to an area of Allegheny County that is a non-attainment area for PM 2.5 from 2009 to the present.**
(https://www3.epa.gov/airquality/greenbook/anayo_pa.html)
- b. **Air pollution moves in complex ways, especially in the hill and valley topography of Southwest Pennsylvania** and thus the “area of attainment” is hard to define.
- c. **Wind roses show the direction of air movement in the region is highly variable** and thus the “area” is hard to define.
- d. **The term “area” is used in EPA reports such as NAAQS in numerous ways to define a variety of neighborhoods of different sizes.** The applicants did not show the DEP how they defined “area”, nor did they show that pollutants from the evaporator will not degrade air quality in any of the neighboring “areas.”

4. **The permit proposal is incomplete because it lacks management of significant radiation.**

The leachate and waste in WSL are known to contain different forms of radioactivity, only one of which can be easily measured. Simple measures, such as Geiger counter tallies of gamma radiation from Uranium (U), greatly underestimate the total radiation hazard. Thorough tests of WSL samples show the hard-to-measure alpha radiation from Radium (Ra) in leachate and solid wastes. Radioactivity from Radium is especially high in Marcellus deposits and common in gas industry waste. For over 10 years, WSL has been accepting gas industry waste where it now makes up 40% of input.

Radium changes to the well-known hazard, Radon (Rn) gas, at different rates, called decay half-lives. The rates differ for each variety, or numbered isotope, of Radium. Ra-224 half-life is 3.5 days, Ra-226 decays in 1600 years and Ra-228 converts in 6.7 years.
(<https://semspub.epa.gov/work/11/176334.pdf>)

Homeowners know Radon can accumulate in homes as it is released from surrounding soils, but citizens should also know Radon gas emitted from an above ground source will travel downslope because Radon is heavier than other gases in air. Therefore, it could accumulate in valleys around a facility. Radon gas exposure increases cancer risk, especially lung cancer. The permit does not address radiation problems as in these specifics:

- a. **There is no requirement to measure radioactive elements in the leachate or air emissions.**

Added Requirements:

Measure Gamma radiation in leachate and air samples daily.

At least weekly samples should be taken of leachate and air for alpha emitters such as Ra and Rn.

All test results should be readily available to the public for public health reasons.

- a. **There is no requirement to measure radioactive elements in the sludge left over from evaporation and proper disposal.**

Added Requirements:

This sludge should be tested on the same schedule as the leachate and air, with daily measures of Gamma radiation and weekly samples for Ra tests.

- b. **WSL underestimates the radiation hazard because it appears to rely on instantaneous radiation detectors for incoming waste.**

A recent Post-Gazette article by Don Hopey quoted a representative from WSL: "Ms. Rozier said all waste loads trucked into the landfill are tested for radioactivity prior to disposal and that any waste deemed hazardous is rejected by the landfill."

Added Requirements:

Instantaneous gamma radiation detectors should be augmented with weekly samples of incoming waste tested for Ra as well and removal of any unacceptable recent deposits.

- c. **WSL has been accumulating radioactive elements for many years.**

WSL has been accepting industrial waste with unknown amounts of radioactive elements for decades, and, after 2010, accepting gas industry waste likely to contain radioactive elements.

Added Requirements:

WSL must begin a program to systematically test layers of accumulated waste for all forms of radiation. This will help them predict radiation in leachate as sections of the waste become more or less exposed to rainfall. Sections with high radiation will require special protection and possible removal to a hazardous waste.

5. The proposed permit is flawed and appears to be rushed in its development.

- a. **The goal of the permit is unclear.**

The following quote is an example from the first page of the permit:

"This plan approval is for the construction of a 45,000 gallons per day (gpd) Leachate Evaporation System."

This statement implies that the permit is only for construction, but other parts of the permit seem to apply to operation of the evaporation system.

- b. **The proposed evaporation system is not adequate to handle the leachate from the site, and may be over-used in real-world operations.**

The proposed system has a maximum capacity of 45,000 gpd, but the landfill site is known to produce at least 63,000 gpd and may produce up to 100,000 gpd. The permit does not explain how the operators will handle leachate excess.

- c. **At least two recent proposal permits were rejected due to technical inadequacies that were substantial. Replacement proposals were submitted within days.**

Complete evaluation of the original draft permits, the technical inadequacies and substituted information need more time to be properly considered by DEP, other experts, and citizens.

6. The permit allows far too much start time for excess air pollutant emissions and non-compliance, namely an initial 6 months for “shakedown” and indefinite 6-month extensions.

The following quote from the permit application shows the excessively long period of 180 days for shakedown in which excess pollution emissions may occur. Then, the permit allows continued non-compliance and possible excess pollution for an unlimited number of 180-day extensions, simply requiring plans for reaching compliance.

“#003 Future Adoption of Requirements
Plan Approval Temporary Operation

(c) This plan approval authorizes a temporary operation period not to exceed 180 days from the date of commencement of operation, provided the Department receives notice from the permittee pursuant to paragraph (a), above.

(d) The permittee may request an extension of the 180-day shakedown period if further evaluation of the air contamination aspects of the source(s) is necessary. The request for an extension shall be submitted, in writing, to the Department at least 15 days prior to the end of the initial 180-day shakedown period and shall provide a description of the compliance status of the source, a detailed schedule for establishing compliance, and the reasons compliance has not been established. This temporary operation period will be valid for a limited time and may be extended for additional limited periods, each not to exceed 180 days.”

7. Daily inspections rely only on one person’s sight and smell.

The daily monitoring depends only on sight and smell of an operator. This is too subjective and variable. Under the proposed scenario, problems could easily go undetected for long periods of time. Excess emissions will be inhaled by citizens within minutes after a plume leaves the site and may last for hours or days. Given the huge volume of toxic leachate evaporated per day, any malfunction in operations could release large amounts of toxins before operators recognize a problem.

The following quote from the permit describes inspections that are far too simple and monitoring that is far too limited.

“A facility-wide inspection shall be conducted at a minimum of once each day at the Facility by the Owner/Operator. The facility-wide inspection shall be conducted for the presence of the following:

- (a) Visible stack emissions;
- (b) Fugitive emissions; and
- (c) Potentially objectionable odors at the property line.”

Added Requirements:

Daily visual and smell methods should be augmented with constant monitoring of emissions with visual and infra-red cameras and daily testing for key air pollutants with readily available tools, such as PM-2.5 monitors.

The PM-2.5 real time data should be made available to the public so they can protect their lungs and limit pollution exposure on days with high PM-2.5 amounts.

8. The operator can wait too long, three years, to test and report on new hazardous substances.

The permit outlines testing that is far too infrequent for hazardous substances, as seen in this quote from the permit.

“#012 Risk Management
(1) The permittee shall submit the first RMP to a central point specified by the Environmental Protection Agency no later than the latest of the following:
(i) Three years after the date on which a regulated substance is first listed under § 68.130; or,
(ii) The date on which a regulated substance is first present above a threshold quantity in a process.”

9. Pollution amounts are reported only once per year.

Many serious air pollutants are in this permit and citizens need to know actual amounts on a regular basis, at least weekly.

The quote below from the permit shows the permit lacks specific instructions for measuring pollutants in a timely fashion to protect the public.

“The permittee shall maintain the following comprehensive and accurate records:

- (a) Facility-wide emissions on a 12-month rolling basis for NO_x, CO, SO_x, VOC, PM, PM₁₀, PM_{2.5}, NH₃, total HAPs, and CO₂e.
 - (b) Results of facility-wide inspections for visible stack emissions, fugitive emissions, and/or potentially objectionable odors including the date, time, name, and title of the observer, along with any corrective action taken as a result.
 - (c) Copies of the manufacturer’s recommended maintenance schedule for each air source and air cleaning device.
 - (d) All maintenance performed on each source and air cleaning device.
- All logs and required records shall be maintained on site, or at an alternative location acceptable to the Department, for a minimum of five years and shall be made available to the Department upon request.
- In accordance with 25 Pa. Code § 135.3, the owner or operator of a facility shall submit to the Department via AES*Online or AES*XML at www.depgreenport.state.pa.us/ by March 1st of each year, a facility inventory report for the preceding calendar year for all sources regulated under this plan approval. The inventory report shall include all emissions information for all sources operated during the preceding calendar year. Emissions data including, but not limited, to the following shall be reported:
- (i) NO_x;
 - (ii) CO;
 - (iii) SO_x;
 - (iv) PM₁₀;
 - (v) PM_{2.5};
 - (vi) VOC;

(vii) Speciated HAP including, but not limited to, benzene, ethyl benzene, formaldehyde, n-hexane, toluene, isomers and mixtures of xylenes, and 2,2,4-trimethylpentane;

(viii) Total HAP;

(ix) CO₂;

(x) CH₄; and (xi) N₂O”
