

March 4, 2020

SUBJECT: Application Review Memo for Plan Approval
17-00068B
PA Waste, LLC
Camp Hope Run Landfill
Boggs Township, Clearfield County

TO: Muhammad Q. Zaman *MQZ*
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THROUGH: David M. Shimmel, P.E. *DS*
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An application for plan approval was submitted by PA Waste, LLC for the construction and operation of the proposed Camp Hope Run municipal solid waste landfill located in Boggs Township, Clearfield County. The proposed landfill will contain about 221 acres of lined waste disposal area and accept up to 24,649,798 Megagrams of waste over the lifetime of the proposed landfill. As part of the application, PA Waste, LLC is proposing to construct a landfill gas (LFG) collection system and control the LFG emissions with an enclosed flare.

The Department published a technical guidance document on June 5, 2009, for the *Best Available Technology and other Performing Criteria for Municipal Solid Waste Landfills*. The recommendations and best practices from the technical guidance document were utilized to draft conditions in the plan approval that will ensure compliance with the requirements of the New Source Performance Standards (NSPS) for Municipal Solid Waste Landfills pursuant to 40 CFR Part 60 Subpart XXX Sections 60.760 through 60.769. This guidance document has identified requirements to be met for the installation of an enclosed flare and these requirements have been established as Best Available Technology (BAT) for controlling LFG from municipal solid waste landfills. PA Waste, LLC has stated in the application that they will meet the requirements of the Department's BAT requirements pursuant to 25 Pa. Code Sections 127.1 and 127.12 for the construction of the facility.

Landfill (Source P101)

PA Waste, LLC is proposing to utilize horizontal collection lines and vertical well heads to collect the LFG generated in each cell of the proposed landfill (Source P101). The horizontal collection lines will be located no more than 150 feet apart laterally and 50 feet apart vertically. All vertical wells will be capped and tied into the gas collection system which will be sent to an

enclosed flare. I recommend that this proposed LFG collection system be acceptable as meeting the Department's Best Available Technology (BAT) requirements pursuant to 25 Pa. Code Sections 127.1 and 127.12.

PA Waste, LLC calculated the maximum amount of landfill gas generated from the landfill would equate to 9,279 cubic feet per minute (cfm) utilizing the Landfill Gas Emissions Model (LandGEM) software. This flow rate is based upon 24,648,798 Megagrams of waste in place in 2041. The LandGEM analysis is based upon a first-order decomposition rate equation which quantifies emissions from the decomposing waste in the landfill. PA Waste, LLC is proposing that the landfill gas collection system efficiency will be greater than 85%. Therefore, the controlled LFG flow will equate to 7,887 cfm.

PA Waste, LLC is proposing to install a 3,000 scfm LFG Specialties, Inc. model EF1050I12 enclosed flare (Control Device C101) to control the non-methane organic compounds (NMOC) emissions from Source P101. In the July 16, 2019, submittal from Smith+Gardner, Inc. consultants for PA Waste, LLC, it was stated that they are proposing the smaller flare because the turndown ratio is better suited for smaller flare to better control emissions during initial low flow rates once the system becomes operational. According to the LandGEM calculations, 3,000 cfm as generated by the landfill would not happen until the seventh year of operation. Once the LFG reaches 2,750 cfm, the permittee will be required to submit a plan approval for the installation of another control device to control the higher flow rates.

The heat content of LFG equates to approximately 500 Btu per cubic foot. Based on 3,000 scfm of LFG, the potential maximum heat input of Control Device C101 will equate to 90 million Btu per hour. The proposed enclosed flare will be equipped with an ignition system that utilizes an auxiliary fuel to start the flare prior to introduction of LFG. PA Waste, LLC is proposing to utilize propane as the auxiliary fuel source for Control Device C101 to ensure complete and immediate combustion of the LFG. The proposed enclosed flare will be equipped with instrumentation to continuously monitor and record the combustion chamber temperature and gas flow rate once every 15 minutes. This will be compliant with the requirements of 40 CFR 60.766(b). The system will monitor the temperature and shut off the LFG and natural gas to the flare in the event that the temperature should fall below the minimum temperature requirement of 1,600°F, which is being proposed by PA Waste, LLC. If the temperature falls below the minimum temperature limitation, the system will attempt an automatic restart. PA Waste, LLC is also proposing to have the flare shut off in the event of an exceedance of the combustion temperature of 2,000°F, due to manufacturer recommendation. PA Waste, LLC will be required to maintain, for each 3-hour period of operation based on rolling hourly data, an average combustion temperature of no more than 28°C (50.4°F) below the average combustion temperature during the most recent performance test in which compliance with the destruction/removal was demonstrated pursuant to 40 CFR 60.762.

PA Waste, LLC is proposing to equip the flare with an ultraviolet scanner with controller to confirm that a flame is present anytime that LFG is present. If a flame is not detected the controller will automatically shut down the blower supplying LFG to the flare and close the automated header valve to ensure no emission of LFG to atmosphere from Control Device C101 which satisfies BAT requirements.

PA Waste, LLC is proposing to install a bypass line valve which will remain in the closed position with a car-seal or a lock-and-key type configuration on Control Device C101. PA Waste, LLC will be required to perform visible inspection of the seal or closure mechanism at least once per month to ensure the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line. This will be compliant with 40 CFR Section 60.766(b)(2)(ii) and satisfies BAT requirements.

NMOC emissions

PA Waste, LLC has provided a manufacturer guarantee that the proposed flare will meet a destruction efficiency of 98% or greater or reduce the outlet NMOC concentration to less than 20 parts per million, by volume, dry basis (ppmdv) at 3% oxygen at all times of operation for NMOCs, which is required by 40 CFR Part 60 Subpart XXX Section 60.762. NMOC emissions are volatile organic compound (VOC) emissions. 40 CFR Section 60.762(b)(2)(iii)(B) requires that the control system be designed to reduce NMOC by 98% or greater or reduce the outlet NMOC concentration to less than 20 parts per million, by volume, dry basis (ppmdv) at 3% oxygen. At a lower inlet concentration, the control device will not be able to achieve the required 98% destruction efficiency.

The criteria for proper destruction of organic compounds in a combustion device, like an enclosed flare, are time, temperature and turbulence. It has been demonstrated in previous stack test data that residence time and combustion temperatures in the combustion area of the flare should be greater than one (1) second and 1,500°F, respectively, to ensure that the control device is achieving complete combustion of the air contaminants. PA Waste, LLC provided that the residence time of the proposed flare equates to 1.13 seconds at a temperature of 1,600°F. Because the residence time is greater than one second and the combustion temperature is greater than 1,500°F, these satisfy two of the three criteria. PA Waste, LLC is proposing that the burner configuration will obtain a high efficiency mixture of the LFG to be controlled. The burner configuration is a center burner tip with six (6) 6" burner arms deliver the gas tangentially to the center tip. This will provide proper mixture (turbulence) to ensure the proposed flare is able to achieve the highest destruction efficiency of the control device. Since PA Waste, LLC is proposing to operate the unit at a minimum of 1,600°F to reduce NMOC emissions by 98% or greater, I believe the proposed LFG Specialties model EF1050I12 enclosed flare will achieve this required destruction efficiency. I recommend that a condition be established that the proposed enclosed flare achieve a NMOC destruction efficiency of equal to or greater than 98% or that the concentration of NMOC from the outlet of the proposed flare not equal or exceed 20 ppmdv at 3% oxygen at any time to satisfy both BAT and NSPS requirements.

Based off the maximum 3,000 scfm of LFG to which the control device can handle, the NMOC emissions will equate to 23.26 pounds per hour. This is based on the 50% methane content in the LFG. Utilizing the 98% removal efficiency, the NMOC emissions from the proposed flare would equate to 0.47 pounds per hour. The annual NMOC emissions would equate to 2.06 tons in any 12 consecutive month period. I believe the proposed enclosed flare is adequate in controlling the NMOC emissions pursuant to both BAT and NSPS requirements. I recommend that an NMOC emission limitation of 0.47 pounds per hour from the proposed flare to satisfy both BAT and NSPS requirements.

NO_x Emissions

Control Device C101 has the theoretical maximum heat input of 90 million Btu per hour, based on 3,000 scfm and a heat content of 500 Btu per cubic foot of LFG. PA Waste, LLC has provided vendor data indicating that the potential nitrogen oxide (NO_x) emissions from the proposed enclosed flare will equate to 0.06 pounds per million Btu of heat input. Based on the maximum heat input and vendor data of Control Device C101, the NO_x emission rate would equate to 5.40 pounds per hour. The potential annual emission of NO_x will equate to 23.65 tons in any 12 consecutive month period, based on 8,760 hours in any 12 consecutive month period. I recommend that a NO_x emission limitation of 0.06 pounds per million Btu of heat input be established to satisfy BAT requirements. PA Waste, LLC will be required to stack test for NO_x emissions to verify compliance with the emission limitation.

CO Emissions

PA Waste, LLC has provided vendor data indicating that the potential carbon monoxide (CO) emissions from the proposed enclosed flare will equate to 0.20 pounds per million Btu of heat input. This would equate to 18.0 pounds per hour based on a maximum heat input of 90 million Btu per hour. The potential annual emission of CO will equate to 78.84 tons in any 12 consecutive month period. I recommend that a CO emission limitation of 0.20 pounds per million Btu of heat input be established to satisfy BAT requirements. PA Waste, LLC will be required to stack test for CO emissions to verify compliance with the emission limitation.

SO_x Emissions

With respect to sulfur oxide (SO_x) emission from LFG, the amount of sulfide compounds in the LFG dictates the amount of SO_x emissions. The sulfide compounds, which are precursors to SO_x emissions, are Carbon Disulfide, Carbonyl Sulfide, Dimethyl Sulfide, Hydrogen Sulfide, Methyl Mercaptan and Ethyl Mercaptan. Data provided by PA Waste, LLC indicates that there is a potential of 3.63 pounds per hour of SO_x emissions from the enclosed flare. This would equate to an annual emission of SO_x to be 15.92 tons in any 12 consecutive month period. The proposed flare is subject to the requirements of 25 Pa. Code Section 123.21 which limits the concentration of SO_x emission to not exceed 500 ppm. The concentration of SO_x in the exhaust gas, based on the emission rate of 3.63 pounds per hour equates to 124 ppm which is in compliance with the requirements of 25 Pa. Code Section 123.21. I recommend that a SO_x emission limitation of 3.63 pounds per hour be established to satisfy BAT requirements.

PM/PM₁₀/PM_{2.5} Emissions

The potential particulate matter, which includes particulate with an aerodynamic diameter of less than 10 micron (PM₁₀) and 2.5 micron (PM_{2.5}), emission rate is 17 pounds per million cubic feet of methane combusted. Based on the 3,000 scfm maximum flow rate of LFG to Control Device C101 and 50% methane, the PM/PM₁₀/PM_{2.5} emissions would equate to 1.53 pounds per hour. The annual PM/PM₁₀/PM_{2.5} emissions would equate to 6.70 tons in any 12 consecutive month period. The PM/PM₁₀/PM_{2.5} concentration would equate to 0.01 grains per dry standard cubic foot of exhaust gas, which is in compliance with the requirements of 0.04 grains per dry standard

cubic foot of exhaust gas as specified in 25 Pa. Code Section 123.13. I recommend that a PM/PM₁₀/PM_{2.5} emission limitation from Control Device C101 associated with Source P101 not exceed 1.53 pounds per hour and 6.70 tons in any 12 consecutive month period be established to satisfy BAT requirements. In addition, I recommend that the particulate matter concentration be limited to less than 0.01 grains per dry standard cubic foot of exhaust gas to satisfy BAT requirements.

Control Device C101 will be subject to the visible emission limitations of 25 Pa. Code Section 123.41. 25 Pa. Code Section 123.41 requires the emission of visible air contaminants into the outdoor atmosphere in such a manner that the opacity of the emission is either of the following equal to or greater than 20% for a period or periods aggregating more than three minutes in any 1 hour and equal to or greater than 60% at any time. Since PA Waste, LLC will be utilizing LFG, which is comprised of methane and other gaseous compounds, as fuel for the proposed control device, the potential PM/PM₁₀/PM_{2.5} concentration of the proposed unit is less than 0.01 grains per dry standard cubic foot of exhaust gas; therefore, I believe the proposed enclosed flare will be compliant with the requirements of 25 Pa. Code Section 123.41. Additionally, PA Waste, LLC is proposing that there shall be no visible emissions from Control Device C101 except for periods not to exceed a total of five (5) minutes during any two (2) consecutive hours. These proposed limitations will satisfy BAT requirements.

Source P102 – Haul Roads

The air contaminant emissions from haul roads at the facility are particulate matter (PM) emissions which are fugitive in nature. Garbage truck traffic on paved and unpaved roads, landfill construction vehicles, daily soil cover placement, overburden removal and dumping and road maintenance contribute to the PM emissions. The landfill haul roads will include 0.43 miles of paved roads and 2.32 miles of unpaved roads. PA Waste, LLC proposes to utilize quarry or site stone for surface improvement of the unpaved haul roads. Included within the application was a Waste management permit application Form G(A) which calculates the potential fugitive PM emissions. The calculation demonstrated that the total PM emissions from the haul roads at the facility equate to 20.35 tons in any 12 consecutive month period, of which 7.33 tons are PM₁₀ and 1.02 tons are PM_{2.5} emissions.

PA Waste, LLC is proposing to limit the vehicle speeds to not exceed 10 miles per hour (mph) on unpaved roads and 15 mph on paved roads. Signage will be placed throughout the facility indicating the speed limit on the haul roads. I recommend that a condition be established in Plan Approval 17-00068B requiring PA Waste, LLC to include signage of the posted speed limits on the haul roads throughout the facility.

PA Waste, LLC is proposing to establish best management practices (BMPs) to control the fugitive emissions from the haul roads. BMPs at the facility includes the application of water via a water truck, reapplication of quarried stone on unpaved haul roads, installation of silt fence along the shoulders of the unpaved haul roads and paving. PA Waste, LLC will utilize a water truck with a pressurized spray bar to apply the water to the haul roads. Use of a water truck is the best known PM control technology to control fugitive dust emissions from unpaved roadways.

PA Waste, LLC is proposing to construct a permanent truck wash station, which all vehicles must pass through prior to exiting the facility property. Tires and undercarriage of each vehicle will be washed as needed to prevent carry out from the facility onto public roadways. Additionally, each truck entering and leaving the facility will have its bed or container covered to reduce airborne contaminants. I recommend that these practices be established in Plan Approval 17-00068B to satisfy BAT requirements pursuant to 25 Pa. Code Sections 127.1 and 127.12.

Source P103 – Leachate treatment System

Landfill leachate is generated from liquids existing in the waste as it enters the landfill and/or from rainwater that passes through the waste within the landfill. The air contaminant of concern with leachate is ammonia. PA Waste, LLC is proposing to collect the leachate generated in the landfill and treat it at the facility in a Purestream, Inc. sequencing batch reactor (Source P103) to minimize the amount of ammonia emissions from the leachate. The SBR process utilizes a suspension of microorganisms for carbonaceous oxidation (the amount of dissolved oxygen needed by aerobic biological organisms) and nitrogen removal. First, the leachate is loaded into the SBR tank and mixed with the liquor that contains the microorganisms and mixed in the tank. Under aerobic conditions, carbon substrates are oxidized by active microorganisms that utilize the carbon substrates as a food source for cellular growth. This begins the nitrification process, where the ammonia is oxidized to nitrites under aerobic conditions. Second, the solution is allowed to settle where the sludge and liquids are separated and then the liquid is removed from the tank. Under neutral pH conditions, ammonia-nitrogen predominately exists as aqueous ammonium. PA Waste, LLC calculated that ammonia emissions from the SBR process would equate to 0.28 tons in any 12 consecutive month period. This is based on an ammonia concentration of 240 milligrams per liter (mg/l) in the leachate and a throughput of 50,000 gallons per day. Once the liquid is removed, the sludge material then can be removed. I believe that the proposed SBR system by PA Waste, LLC satisfies BAT requirements for the emission of ammonia. I recommend that a condition be included in the plan approval stating that all leachate generated at the facility must be treated in a Source P103 and that the ammonia emissions shall not exceed 0.28 tons in any 12 consecutive month period.

Insignificant Air Contaminant Sources

PA Waste LLC is proposing to construct propane-fired furnaces and space heaters at the facility. The total combined rated heat input of these units equates to 0.335 million Btu per hour. Since each unit has a rated heat input of less than 2.50 million Btu per hour, these units are exempt from plan approval pursuant to 25 Pa. Code Section 127.14(a)(2) as published in the *Pennsylvania Bulletin* on July 26, 2003. Even though these units will not be included in the plan approval, they are presented below in Table #2 to determine the total potential, facility-wide emissions from all sources at the facility to determine if the facility is a Title V facility or not.

Facility-wide Emissions

Below in Table #1 indicates the theoretical potential emissions from all air contaminant sources being proposed for the Camp Hope Run Landfill.

Table #1 – Facility –wide Potential Emissions								
Source	NO _x Tons/yr	CO Tons/yr	SO _x Tons/yr	PM Tons/yr	PM ₁₀ Tons/yr	PM _{2.5} Tons/yr	VOC Tons/Yr	CO _{2e} Tons/yr
Landfill w/ Flare	23.65	78.84	5.90	6.70	6.70	6.70	2.06	71,038
Haul Roads	---	---	---	20.35	7.33	1.02	---	---
Emergency Generator	0.13	0.06	---	---	---	---	0.02	6
Combustion Units	0.21	0.12	---	0.01	---	---	---	203
Total Emissions	23.99	79.02	5.90	27.06	14.03	7.72	2.08	71,247

As indicated above in Table #1, the theoretical potential emissions from all sources at the facility do not equal or exceed any major emission threshold. Therefore, this facility is not subject to the Department’s New Source Review regulations pursuant to 25 Pa. Code Sections 127.201 through 127.218 or the Federal regulations of the Prevention of Significant Deterioration pursuant to 40 CFR Part 52 Section 52.21.

Conclusion

Based on the information supplied by PA Waste, LLC, I believe that the construction of the proposed landfill will satisfy the requirements of BAT and NSPS. I recommend the issuance of Plan Approval 17-00068A for the Camp Hope Run Landfill located in Boggs Township, Clearfield County. The Department has determined the following conditions will be included in the plan approval.

1. Pursuant to the best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the permittee shall not permit the following air contaminant emissions from the exhaust of ID C101 associated with Source P101 in excess of the limitations listed below:
 - a. nitrogen oxides (NO_x, expressed as NO₂) – 0.06 pounds per million Btu of heat input,
 - b. carbon monoxide (CO) – 0.20 pounds per million Btu of heat input,
 - c. sulfur oxides (SO_x, expressed as SO₂) – 3.63 pounds per hour,
 - d. particulate matter (PM/PM₁₀/PM_{2.5}) – 1.53 pounds per hour,
 - e. non-methane organic compounds (NMOC) – 0.47 pounds per hour.

2. Pursuant to the best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12 and 40 CFR Part 60 Subpart XXX Sections 60.760 through 60.769, Control Device C101 associated with Source P101 shall reduce the non-methane organic compound emissions by 98% or greater, or reduce the outlet non-methane organic compound concentration to not equal or exceed 20 parts per million, by volume, dry basis (ppmdv) at 3% oxygen.

3. Pursuant to the best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, there shall be no visible emissions from Control Device C101 associated with Source P101, except for periods during startup and shut down not to exceed 10% opacity for a period or periods aggregating more than three minutes in any 1 hour.

4. Pursuant to the best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, Control Device C101 shall be equipped with a propane enrichment system to allow propane fuel to be bled into the landfill gas.
5. Pursuant to the best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the combustion chamber temperature of Control Device C101 shall not be less than 1,600°F, at any time.
6. Pursuant to the best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12 and 40 CFR Part 60 Subpart XXX Sections 60.760 through 60.769, Control Device C101 associated with Source P101 shall maintain, for each 3-hour period of operation based on rolling hourly data, an average combustion temperature of no more than 28°C (50.4°F) below the average combustion temperature.
7. Pursuant to the best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the residence time of the air contaminants in Control Device C101 shall not be less than 1.13 seconds.
8. Pursuant to the best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12 and 40 CFR Part 60 Subpart XXX Sections 60.760 through 60.769, Control Device C101 shall be equipped with instrumentation to continuously monitor and record the combustion temperature and having a minimum accuracy of +/- one percent of the temperature being monitored.
9. Pursuant to the best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12 and 40 CFR Part 60 Subpart XXX Sections 60.760 through 60.769, Control Device C101 shall be equipped with instrumentation to monitor the gas flow to the flare and record the flow once every 15 minutes.
10. Pursuant to the best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12 and 40 CFR Part 60 Subpart XXX Sections 60.760 through 60.769, Control Device C101 shall be equipped with a bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visible inspection of the seal or closure mechanism shall be performed at least once per month to ensure the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.
11. Pursuant to the best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, The piping incorporated in the landfill gas collection system incorporated in Source P101 shall be sized to accommodate the maximum gas generation rate to be associated with the respective field(s). The gas collection rate shall at no time be less than the gas generation rate of the respective field.
12. Pursuant to the best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12 and 40 CFR Part 60 Subpart XXX Sections 60.760 through 60.769, Control Device C101 shall be equipped with an automatic pilot ignition system that utilizes

propane as a separate fuel source which ensures complete and immediate combustion of the landfill gas.

13. Pursuant to the best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, Control Device C101 shall be equipped with an ultraviolet scanner with controller to confirm that a flame is present anytime that landfill gas is present.
14. Pursuant to the best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12 and 40 CFR Part 60 Subpart XXX Sections 60.760 through 60.769, the landfill gas collection system shall be operated so that the methane concentration is less than 500 parts per million above background at the surface of the landfill.
15. Pursuant to the best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12 and 40 CFR Part 60 Subpart XXX Sections 60.760 through 60.769, each well associated with the gas collection system incorporated in Source P101 shall be installed no later than 60 days after the date on which the initial solid waste has been in place.
16. Pursuant to the best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, Control Device C101 shall be equipped with an automatic shut-off mechanism designed to immediately stop the flow of gases when a flame-out occurs. During restart or start-up, there should be sufficient flow of auxiliary fuel to the burners such that unburned landfill gases are not emitted to the atmosphere.
17. Pursuant to the best available technology requirements of 25 pa. Code Sections 127.1 and 127.12, gas collection and destruction (enclosed flare, C101) in a field incorporated in Source P101 shall commence no later than two (2) years after refuse has first been deposited within that field. At that time all wells within the field shall be tied into the gas collection system associated with Source P101. No gas well shall be vented directly to the atmosphere from a field at any time after gas collection is required to commence.
18. Pursuant to the best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, Control Device C101 shall be designed such that there are no visible flames during normal operation.
19. The permittee shall keep records of the following information and shall be kept for a minimum of five (5) years:
 - a. The total emissions and supporting calculations of nitrogen oxides, carbon monoxides, sulfur oxides, particulate matter and non-methane organic compounds from Control Device C101 on a monthly basis to verify compliance with the respective annual emission limitations.
 - b. The combustion temperature of Control Device C101 on a continuous basis
20. The permittee shall perform nitrogen oxide, carbon monoxide and non-methane organic compound stack tests upon Control Device C101 associated with Source P101 within 120 days from the initial operation to verify compliance with the emission limitations for

nitrogen oxide, carbon monoxide and non-methane hydrocarbon emissions from Control Device C101 associated with Source P101

- a. The performance test shall consist of three (3) separate test runs and each run shall last at least in one (1) hour in duration.
 - b. All testing is to be done using reference method test procedures acceptable to the Department and all testing is to be performed while Control Device C101 is operating at maximum normal operational conditions.
21. The permittee shall submit a plan approval application for the installation of another control device to control the higher flow rates once the actual LFG flow rate equals 2,750 cfm.
 22. Pursuant to the best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, all leachate generated at the facility shall be treated in Source P103.
 23. Pursuant to the best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the ammonia emissions from the Source P103 shall not exceed 0.28 tons in any 12 consecutive month period.
 24. Pursuant to the best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, An operable water truck equipped with a pressurized spray mechanism shall be kept on-site and filled with water at all times (except when refilling the truck) and shall be used for the prevention and control of fugitive air contaminant emissions from site haul roads and construction/operation activities associated with the landfill. The permittee shall water each site haul road and construction/operation area at the facility when the facility is in operation at least every two hours during months of June through September and at least twice per day during rest of the calendar year. The permittee may not water each site haul road and construction/operation area at the facility if the ground is frozen or the freezing rain has fallen during the day. If at any time the fugitive dust emissions exceed the limitations of 25 Pa. Code Section 123.1, the permittee shall take such control measures as are necessary to reduce the air contaminant emissions to within the acceptable limitations.
 25. The permittee shall implement any effective winterization measure necessary to render this water truck capable of use under all weather conditions.
 26. Pursuant to the best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, all loaded trucks entering or exiting the facility via public roadways shall have the truck beds completely tarped or otherwise covered. The permittee shall post easily visible signs explaining the above requirement on the facility access road and elsewhere within the facility, as appropriate.
 27. Pursuant to the best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the permittee shall post speed limit signs indicating the speed limit on paved road

to be 15 MPH and unpaved roads to be 10 MPH for the prevention and control of fugitive air contaminant emissions from site haul roads.

28. Pursuant to the best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the permittee shall maintain a permanent truck wash station, which all vehicles must pass through prior to exiting the facility property. Tires and undercarriage of each vehicle shall be washed as needed to prevent carry out from the facility onto public roadways.
29. Source P101 is subject to the requirements of 40 CFR Part 60 Subpart XXX Sections 60.760 through 60.769. The permittee shall comply with all applicable requirements of 40 CFR Sections 60.760 through 60.769.