



April 11, 2025

Mr. Ihab Abdulfatah, P.E.
Environmental Engineer
Mr. Bill Gaspari, P.E.
Environmental Engineering Manager
Pennsylvania Department of Environmental Protection
Bureau of Waste Management
400 Waterfront Drive
Pittsburgh, PA 15222-4739

**RE: Technical Deficiency Letter – Alternative Daily Covers Minor Modification
Westmoreland Sanitary Landfill
Rostraver Township, Westmoreland County
Permit I.D. No. 100277
Authorization No. 1499894**

Dear Mr. Abdulfatah and Mr. Gaspari:

Please accept the following in response to your letter dated March 27, 2025 on the referenced modification application. For clarity, each of your comments has been repeated below in bold/italic type with our responses immediately following each comment.

- 1. According to 25 Pa. Code Section 271.231(a), the request to authorize an alternative to design requirements is submitted through Form Q only if specific sections in regulation expressly state that alternative daily covers (ADCs) may be authorized under Section 271.231. Since Section 273.232 (relating to daily cover) does not expressly state that alternatives may be authorized under Section 271.231, the ADCs authorization request should be submitted as a modification to Form 14 (Operation Plan – Phase II).***

Please submit a revised Form 14 incorporating relevant site-specific provisions for each ADC material proposed. The revised Form 14 should incorporate site-specific considerations for each ADC material such as material specifications and description, handling procedures, placement of the material, and a quality assurance plan.

The submitted Form Q has been incorporated into the attached Form 14 as Attachment 14-6 and noted in Section Q - Daily Cover. In the Narrative Response within Attachment 14-6, each ADC material is listed, described, and its attributes are compared against the performance standards outlines in 25 PA Code Section 273.232. The specific provisions Westmoreland Sanitary Landfill will take for each material are outlined within these

descriptions. Additional discussion regarding daily cover can be found in the facility's approved Form 14, Section Q.

- 2. Pursuant to 25 Pa. Code Section 273.232(b)(5), the daily cover shall be consistent with the waste acceptance plan for the facility.***

For each ADC material proposed, please provide a copy of the section of the approved waste acceptance plan or a copy of a permit condition which confirms that the facility is authorized to accept the waste material.

The proposed Alternative Daily Cover materials apply to the residual waste groups listed in the approved Form R Table 1 (Residual and Special Handling Municipal Waste Streams Requested for Disposal). Additional discussion has been added to Attachment 14-6 to specify which approved residual waste code applies to each Alternative Daily Cover.

- 3. The potentials for odors and decomposition-related issues associated with the Soil/Compost Mixture, industrial sludges, dredged materials, auto fluff, and construction and demolition wastes have not been addressed. These materials are known to emit odors or attract pests.***

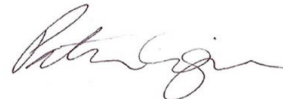
Please provide more information regarding the planned mitigation measures to address odors emitted from these materials during stockpiling and application as ADC.

Prior to use of the ADC, WSLF will confirm the material does not exhibit significant odors with the potential to migrate offsite. Excessively odorous material will be disposed rather than utilized as ADC. Following placement of the ADC, should any nuisances arise from their use, the area would be covered with typical daily cover material. It is also important to note, these materials are widely used at other Pennsylvania landfill facilities without issues.

If you have any questions or comments, or require additional information, please call me at (814) 238-2060.

Sincerely,

BAI Group



Patrick Wozinski, P.E.
Project Manager

cc: Westmoreland Sanitary Landfill, LLC

FORM 14 OPERATION PLAN

Prepared 12/2001; Rev 07/2003, 06/2005, 09/2005, 11/2007, 04/2010, 11/2010, 07/2011, 09/2011, 12/2011, 03/2012, 07/2012, 04/2014, 02/2020, 11/2020, 01/2021, 05/2021, **04/2025**

Form 14 - Table of Contents

FORM 14 (Rev 04/2025)	This Submission
ATTACHMENT 14-1 (Rev 01/2021)	Narrative Responses
ATTACHMENT 14-2 (Rev 11/2020)	Sample Operations Forms
ATTACHMENT 14-3	Staging of Shale Drilling Waste
ATTACHMENT 14-4 (Rev 11/2020)	Nuisance Odor Mitigation Plan
ATTACHMENT 14-5	Application of Sewage Sludge to Cover Soils
ATTACHMENT 14-6	Alternative Daily Cover This Submission



FORM 14

OPERATION PLAN - PHASE II

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 14, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets should match the "date prepared/revised" on this page.

General References: Chapters 273 and 277

SECTION A. SITE IDENTIFIER

Applicant/permittee: *Westmoreland Sanitary Landfill, LLC*

Site Name: *Sanitary Landfill*

Facility ID (as issued by DEP): *100277*

SECTION B. TYPE OF FACILITY

☒ Municipal Waste Landfill ☐ Construction/Demolition Waste Landfill

SECTION C. GENERAL OPERATING DESCRIPTION

Based on the required maps and grids for a facility of this type, describe the:

1. Proposed landfill method and procedures that are to be established and followed for the life of the proposed site. Include daily procedures, inspection and monitoring of incoming waste, and daily closing procedures.
2. Sequence of landfilling activity, including the proposed filling schedule.
3. Type of landfill activity to be conducted at the proposed site.
4. Proposed engineering techniques.

Refer to Attachment 14-1, Section C for the general operating description.

SECTION D. SPECIFIC FEATURES

Describe the method and schedule for construction, operation, modification, use, maintenance and removal of the following unless their retention is proposed for postclosure land use:

1. Dams, embankments, ditches and other impoundments that are to be located on the proposed site, and adjacent total property owned by the applicant.
2. Borrow pits, soil storage and handling areas and structures that are to be located on the proposed site, total property or adequate properties off-site,
3. Scales and weigh stations, if required for municipal waste landfills.
4. Water and air pollution control facilities that are in any way related to the proposed facility.
5. Erosion control facilities to minimize the discharge of sediment from the proposed permitted site, total property, or associated properties off-site.
6. Equipment storage, maintenance, and other buildings.
7. Access roads that are to be located on the proposed permitted site, total property or associated properties off-site.

Refer to Attachment 14-1, Section D for a narrative describing specific features.

SECTION E. PERSONNEL TRAINING

Describe training procedures to be conducted for the handling and disposal of special handling waste.

Refer to Attachment 14-1, Section E.

SECTION F. CONSTRUCTION SCHEDULE

Describe the construction schedule in relation to the grid coordinate system for signs and markers. For a municipal waste landfill, also describe the sequence of operation relating to the grid coordinate system. Explain where uniform permanent physical markers will be placed, how these physical markers will be maintained and of what materials the markers will be constructed. Further, explain how the proposed disposal area perimeter will be distinguished from the perimeter of the total property. What will be written on the required sign, what will it be constructed of, and where will it be located?

Refer to Attachment 14-1, Section F.

SECTION G. SITE PREPARATION

Describe the site preparation plan/schedule for disposal of solid waste at the proposed facility. Include the following:

1. Identify the maximum and average daily weight or volume of waste to be accepted at the proposed site, and a detailed justification of these volumes.

Refer to Attachment 14-1, Section G.

2. For a municipal waste landfill, describe the method of compliance relating to measurement of waste. If 30,000 or more cubic yards of solid waste is expected to be accepted in a calendar year by this proposed facility for disposal, it must be weighed. The operator of this scale must be a licensed public weighmaster. Explain how the scale will be inspected and maintained to assure accuracy. If the proposed facility is not required to have a scale, explain how the waste will be accurately measured when it is received at the proposed facility.

Refer to Attachment 14-1, Section G.

3. For a demolition/construction waste landfill, describe the method of compliance relating to measurement of waste. Explain how this waste type will be accurately measured by weight or volume prior to unloading.

Refer to Attachment 14-1, Section G.

SECTION H. WATER QUALITY PROTECTION

Describe a plan that is consistent with basic limitations relating to operating requirements.

1. Has written approval been given by this Department for background groundwater monitoring? ☒ Yes ☐ No
If yes, what date 06/19/2001
If not, explain.
2. Has background groundwater monitoring begun? ☒ Yes ☐ No
If no, what is the expected date _____
If yes, when June 1999
3. How will the operator prevent unapproved special handling wastes and/or residual wastes from being accepted and disposed of at the site? How will the operator handle and dispose of approved special handling waste(s), and what specific measures will be taken to prevent exposure to landfill personnel, haulers and others? Explain.

Refer to Attachment 14-1, Section H.

4. How will the operator prevent hazardous and explosive wastes, and liquids from being accepted and disposed of at the site?

Refer to Attachment 14-1, Section H.

5. Is leachate recirculation planned? ☐ Yes ☒ No

If yes, explain.

What is ultimate disposition of leachate?

Leachate Evaporator (Primary), Leachate Hauling for Offsite Disposal (Interim / Emergency)

SECTION I. OPERATING HOURS

Provide the proposed operating hours of the facility. *Refer to Attachment 14-1, Section I.*

SECTION J. ACCESS PLAN

Describe the Access Road Plan, including designs, cross sections and specifications. Indicate design load limits, and identify maximum anticipated loading to be encountered.

1. Explain how the access roads and parking and maneuvering areas will be designed, constructed and maintained to prevent erosion and sediment to streams or runoff.

2. Will streams or waterways be crossed? ☐ Yes ☒ No

If yes, explain how the requirements of Chapter 105 will be met.

Has an application been filed for a Chapter 105 permit? ☐ Yes ☐ No

3. Describe the drainage system for temporary and permanent roads and parking and maneuvering areas to be located at the proposed facility.

Refer to Attachment 14-1, Section J.

4. Describe the materials to be used on permanent or temporary roads and parking and maneuvering areas at the proposed facility:

☒ paved asphalt

☒ gravel

☐ cinders

☐ other equivalent material - explain:

Will the grade of any access road be greater than 12% ☐ Yes ☒ No

If yes, explain.

5. Describe the locations, widths and methods of maintenance for all access roads to be located on the proposed permitted facility, and on the entire property.

Refer to Attachment 14-1, Section J.

SECTION K. ACCESS CONTROL PLAN

Describe the Access Control Plan, including:

1. Use and locations of fencing and barriers to control access. Include heights, dimensions and construction materials. Fences are required around impoundments, leachate collection and treatment systems and gas processing facilities, if these facilities have not been included within the site fence.
2. Site security provisions.
3. Describe the facility sign that will be placed at the junction of each access road and public road.

Refer to Attachment 14-1, Section K.

SECTION L. NUISANCE MINIMIZATION AND CONTROL PLAN

Describe the Nuisance Control Plan, and include details regarding the methods by which the operator will perform regular, frequent and comprehensive inspections to evaluate the effectiveness of the plan for Vectors, Odors, Noise, Dust, Litter, and Other Public Nuisances. The plan needs to include the following items:

1. An inventory and map of areas at the facility that has the potential to cause nuisances
 - Dominate wind direction
 - Hauling, truck staging, and radiation staging areas
 - Leachate and gas management components
 - Disposal areas, intermediate covered areas, anchor trenches, and trash relocation activities
 - Landfill cell construction, fill and capping sequences
 - Landfill siting and position to nearby residences

2. Description of nuisance related monitoring or response activities

- Organization flow chart with each person's duties and responsibilities with regard to this plan
- Notification list for the facility and respective agencies
- A description of how the facility will be operated to eliminate off-site nuisances
 - a. Monitoring frequency and locations
 - b. Inspections for odorous loads
 - c. Monitoring and inspections of the landfill's gas/odors controls
 - d. Dust suppression
- A description of internal and external communication and alarms

3. Describe the facilities meteorological monitoring program

- Meteorological weather station location
- Data to be collected
- Activities limited by the weather and the facilities threshold

4. Detailed plan for preventative maintenance and nuisance controls

- Description and location of portable/temporary odor controls
- Preventative nuisance measures used during the facilities construction
- Description of the nuisance suppression program and the location of any fixed odor controls
- Procedures for handling nuisance prone waste
- Dust minimization plan
- Employee and contractor training
- Inspection frequency for odor management equipment
- Emergency equipment

5. Provide specific countermeasures that will be undertaken by the facility in the event of a nuisance for:

- Dust suppression from hauling, waste placement, or processing activities
- Odors
- Vectors
- Landfill gas detection
- Litter
- Litter during windy conditions

6. Provide any additional information as requested by the Department, Host Municipality, or Host County.

Refer to Attachment 14-1, Section L.

SECTION M. LITTER CONTROL PLAN

Describe the Litter Control Plan, and explain how the operator will prevent litter from blowing or becoming deposited off-site, including:

1. The types, locations and maintenance procedures for litter fences to be used at the proposed facility.
2. The frequency of litter pick up and disposal.

Refer to Attachment 14-1, Section M.

SECTION N. SALVAGING

Explain if salvaging will occur on-site during hours of operation and non-operation. If yes, describe the methods of control over salvaging, and how salvaging will occur without interfering in the operation of the landfill. Further, describe the methods for on site movement and storage of salvaged materials, as well as off-site storage and transportation of salvaged materials.

Refer to Attachment 14-1, Section N.

SECTION O. AIR QUALITY CONTROL

Describe the methods to control dust, and minimize and control air pollution at the proposed facility from exceeding any ambient air quality standards.

Refer to Attachment 14-1, Section O.

SECTION P. WASTE PLACEMENT

1. Initial procedures for placement of waste on the liner system.
2. An explanation of the location(s) of unloading area(s) at the proposed facility, and methods by which loaded collection vehicles will be directed to unload promptly at these areas. Waste cannot be unloaded where continuous or intermittent contact would occur with the groundwater table.
3. Procedures for and the degree of compaction of solid waste. Describe the number and thickness of lifts, and explain how solid waste will be spread and compacted in layers.

Refer to Attachment 14-1, Section P for narrative describing the waste placement plan.

4. Describe how the working face will be managed, and:
 - (i) compacted and covered on a daily basis for municipal waste landfills, and;

Refer to Attachment 14-1, Section P.

- (ii) kept to a size which can easily be compacted for Construction/Demolition waste landfills;

Refer to Attachment 14-1, Section P.

- (iii) how water that contacts the working face will be contained, and not combined, with surface water runoff.

Refer to Attachment 14-1, Section P.

SECTION Q. DAILY COVER

For a municipal waste landfill, describe the frequency of placement, composition, design requirements, storage duration and location(s), maintenance(including revegetation and erosion/sedimentation controls),and thickness of approved daily cover to be placed on exposed solid waste at the proposed site. Include a quality assurance plan.

Refer to Attachment 14-1, Section Q and Attachment 14-6 [Rev. 4/25]

SECTION R. INTERMEDIATE COVER

Describe the frequency of placement, composition, design requirements, storage duration and location(s), maintenance, and thickness of approved intermediate cover to be placed on partial or completed lifts at the proposed site. Explain how slopes, not to exceed 50%, will be maintained, covered, compacted, and revegetated to control erosion and sedimentation. Include a quality assurance plan and identify procedures to establish intermediate elevations.

Refer to Attachment 14-1, Section R.

SECTION S. FINAL COVER SCHEDULE

Describe the time period that approved final cover will be placed on the proposed site, the methods by which final cover will be placed, and composition and design requirements, including:

1. A cap (comprised of a uniform and compacted one (1) foot layer of clay or synthetic type material, if approved).

Refer to Attachment 14-1, Section S.

2. A drainage layer to prevent erosion and transmit flow of surface water.

Refer to Attachment 14-1, Section S.

3. A uniform and compacted layer of soil at least two (2) feet in thickness.

Refer to Attachment 14-1, Section S.

SECTION T. FINAL COVER CHARACTERIZATION

Describe the characteristics of final cover, including:

1. physical properties of final cover,
Refer to Attachment 14-1, Section T.
2. capability of controlling fires,
Refer to Attachment 14-1, Section T.
3. load bearing capacity,
Refer to Attachment 14-1, Section T.
4. capability of supporting vegetation,
Refer to Attachment 14-1, Section T.
5. prevention of nuisances,
Refer to Attachment 14-1, Section T.
6. Include a quality assurance plan, and identify procedures to establish final elevation.
Refer to Attachment 14-1, Section T.

SECTION U. FINAL CONFIGURATION

Describe the grade of the final slopes of the proposed facility, detailing design, installation, maintenance, slope stability, erosion control, compaction, seeding, revegetation, percolation rates, and surface runoff.

What will the maximum grade of the final surface be? 33%

What will the average grade of the final surface be? 29% (excluding top)

Are terraces to be used on the final surface? ☒ Yes ☐ No

If yes, describe design, construction, grades and maintenance of the terraces.

Refer to Attachment 14-1, Section U.

Describe the drainage ditches that will be constructed in each horizontal terrace to convey flow of surface water.

Refer to Attachment 14-1, Section U.

SECTION B – TYPE OF FACILITY

Sanitary Landfill is an existing municipal waste landfill located in Rostraver Township, Westmoreland County, Pennsylvania. This facility is currently operating under PADEP Solid Waste Disposal Permit No. 100277. The existing facility is permitted to accept municipal, residual, special handling, and construction & demolition (C&D) waste.

SECTION C – GENERAL OPERATING DESCRIPTION

Based on the required maps and grids for a facility of this type, describe the:

- 1. Proposed landfill method and procedures that are to be established and followed for the life of the proposed site. Include daily procedures, inspection and monitoring of incoming waste, and daily closing procedures.**

This facility will be operated using the traditional “area fill” method of disposal. The area fill method includes completing successive waste cells where wastes are compacted against the previous cell’s outer waste slope. Cover soils are typically excavated from a future cell area that requires excavation to establish the design base grades. Once a new cell has been constructed, wastes are placed in horizontal lifts, graded, compacted and covered with soil (daily cover or intermediate cover). Waste filling progresses in horizontal lifts within in the cell extending from the outer edge of the cell to the previous cell’s outer slope. A new slope face is formed on the outside edge of the cell, and waste filling continues until the cell’s airspace is depleted or the permitted limit of waste grades has been reached. The next cell is constructed and the process is repeated.

The facility will maintain onsite equipment necessary for the operation of the facility in accordance with 25 Pa. Code Section 273.215 and the permit. It is anticipated that the following equipment will be present onsite to perform waste placement and daily operational activities.

Anticipated Onsite Equipment

- Dozer
- Excavator
- Waste Compactor
- Sheepsfoot or Smooth Drum Roller
- Dump Trucks or Off-Road Trucks

Note that this list of equipment is only an estimate and the quantity and type of actual onsite equipment may vary. Equipment may be used for multiple purposes to complete daily operations and ensure compliance with 25 Pa. Code Section 273.215. For example, typically a dozer will be utilized for placement and grading of waste but at times it may be more beneficial to utilize an excavator (forming an outside slope, completing a small lift, etc.). Also, should the waste compactor be down for maintenance or repair, a dozer, excavator and/or smooth drum roller (or other combination of onsite equipment) may be

utilized as long as suitable compaction of the waste materials is achieved. Operational equipment will be inspected on a weekly basis and any concerns will be noted and addressed through the use of the Weekly Inspection Report described further in the following sections.

The facility will be operated in accordance with the approved maximum and average daily waste receipts. Refer to Form R – Waste Acceptance Plan for procedures related to inspection and monitoring of incoming waste. Daily closing procedures include the complete covering of all exposed waste materials with soil or alternative daily cover material; other daily closing procedures may include equipment maintenance or other site support/construction activities.

Landfill personnel will complete daily operational records in accordance with 25 Pa. Code Section 273.311 and copies of the records will be kept and maintained in the scale house for a calendar month. At the conclusion of the calendar month, records may be moved to the landfill office for long term storage. In addition to the daily operational records, a Responsible Official will be assigned the role of completing a Daily Activity Report and Weekly Inspection Report. Daily Activity Report inspection items include daily cover, intermediate cover, leachate storage areas, site roadways, wheel wash, litter fence, scales and completion of the odor survey. As an added level of assurance, the Daily Activity Report will include a check to verify that the daily operational record has been completed and stored in the scale house.

Weekly Inspection Reports will also be completed by landfill personnel and these reports cover a broader inspection of the facility including E&S controls, leachate storage and collection areas, security / fire equipment, operational equipment and general conditions. A sample Daily Activity Report and Weekly Inspection Report is included in Attachment 14-2. These forms are presented as an example where other forms may be utilized as long as they contain the information presented within the sample forms.

2. Sequence of landfilling activity, including the proposed filling schedule.

This facility is constructed on a phased basis such that the pace of liner construction provides sufficient airspace for anticipated disposal operations. This phased construction allows the filling of small unit areas and as areas reach final permitted grades, the final cover system is installed.

Each cell construction will involve the construction of additional disposal area, perimeter berms, and both temporary and permanent erosion and sedimentation controls. Along with the phased construction of disposal areas, waste placement will progress in the previously constructed areas; as waste placement and construction considerations allow, portions of the landfill will be capped and gas extraction system components will be installed.

The sequence of landfilling activity and construction phasing is presented on the approved permit drawings for the facility. Closure of the landfill disposal area will be performed as

areas reach final grade elevations and shall be in accordance with the approved bond determination for maximum open landfill disposal area.

3. Type of landfill activity to be conducted at the proposed site.

Municipal, non-hazardous residual, special handling, and construction/ demolition waste will be accepted for disposal at this facility.

4. Proposed engineering techniques.

The design of this facility has been completed under the supervision of a registered professional engineer experienced in landfill design, construction, operation and closure.

- Liner system includes a primary composite liner [Geosynthetic Clay Liner (GCL) overlain by a 60-mil nominal HDPE geomembrane] and secondary geomembrane liner (60-mil nominal HDPE). The liner includes a leachate detection layer between the two liner systems which has been designed and configured to promote drainage to the sump locations. The liner system is overlain by a leachate collection/protective cover material with perforated piping which collects and transmits leachate to the sump locations.
- The leachate management system includes a series of leachate collection pipes and sumps within the landfill to collect liquids. Leachate is removed at each sump location and conveyed to on-site leachate storage tanks which provide a minimum 30-day storage volume. From the onsite leachate storage tanks, leachate is currently transmitted to the leachate loadout area where it is trucked offsite for disposal. A Minor Permit Modification is currently pending to propose the use of an onsite leachate evaporator to manage all leachate generated at the landfill. Following beginning installation of the leachate evaporator, it is anticipated that leachate trucking will only occur during emergency scenarios as outlined in the pending proposed Form 25.
- The gas extraction system includes headers/laterals and vertical extraction wells. The gas extraction system piping is connected to a blower system which generates a vacuum on the well field to remove gas from the landfill mass. A landfill beneficial use project including a high-BTU gas plant is in operation at this facility. An existing enclosed ground flare is utilized for back up in the event the gas plant is down for maintenance or malfunction.
- The final cover system for the landfill includes (from top to bottom) a 2 feet thick (minimum) layer of final cover soil, a geocomposite drainage layer and a 40-mil nominal geomembrane. The geocomposite drainage layer transports water infiltrated through the final cover soil to the stormwater management system.

SECTION D – SPECIFIC FEATURES

Describe the method and schedule for construction, operation, modification, use, maintenance and removal of the following unless their retention is proposed for postclosure land use:

1. Dams, embankments, ditches and other impoundments that are to be located on the proposed site, and adjacent total property owned by the applicant.

A permanent perimeter berm and temporary and permanent interior berms will be constructed to mark the disposal boundary and contain waste during disposal operations. Surface water diversion ditches and collection channels will be constructed to divert and/or collect stormwater runoff for controlled release from the site.

To achieve the overall permitted erosion and sedimentation control features for this facility, temporary and permanent erosion & sedimentation controls shall be installed as the landfill, soil borrow areas or other earth disturbance areas are developed. Based on the general grading of the area and limits of the existing erosion & sedimentation controls, each construction phase may include the use of hay bales, silt fences, diversion ditches, collection channels, temporary/permanent terraces, sediment traps and sedimentation ponds. Sedimentation ponds for this facility have been designed and previously permitted for a 25-year, 24-hour storm event, and satisfy the requirements of Chapter 102. Each pond will be periodically inspected to determine if any maintenance is necessary. Should repairs be necessary, they will be completed in a timely manner.

No dams are permitted/proposed for this site. Permanent channels and required culverts may remain in service during the post-closure period. Once adequate revegetation is established in upgradient areas, the sediment ponds may be decommissioned.

2. Borrow pits, soil storage and handling areas and structures that are to be located on the proposed site, total property or adequate properties off-site.

Portions of the property are to be disturbed for soil borrow operations and landfill development. As discussed earlier, future landfill disposal areas are developed on a phased basis and utilized as soil borrow areas for the construction and operation of the facility. This may also include the use of stockpile areas for the storage of excess or future materials. All earth disturbance within the facility limit for the landfill area is addressed with the design of the permitted erosion & sediment controls for this facility. Additional off-site borrow areas may also be pursued for construction or operational soils needs. Any off-site borrow areas shall be permitted to satisfy local regulations prior to use. Any soil and rock materials that may be obtained and hauled to the site from off-site sources not owned by this facility or its subsidiaries will be used on site and are not be transferred back off-site in the future.

As discussed above, as additional areas are disturbed as part of borrow or landfill development operations, additional permanent and temporary erosion & sedimentation

controls will be installed as needed. This may include the installation of appropriate erosion & sedimentation controls for the control of runoff situations not anticipated with the permitted design for the facility. Following the establishment of permanent vegetation on soil borrow or other outside grading areas, the temporary controls may be removed.

Removal of Excess Soil and Rock Materials

Over the remaining life of the landfill disposal area, the facility will have an overall surplus of soil and rock materials from the development of the landfill disposal area which require to be permanently stockpiled on-site. The facility does not have a designated area within the facility permit boundary adequate for the permanent storage of excess soil and rock materials which are not to be utilized as structural fill, subbase, daily cover, intermediate cover and final cover in the remaining development and operation of the landfill disposal area. The facility intends to be a wholesale supplier to outside entities (i.e., contractors, developers, municipalities, residents, etc.) of excess soil and rock materials obtained from the excavation of on-site landfill disposal cells in order to minimize the volume of soil and rock materials which require to be permanently stockpiled on-site. Remaining on-site soil volumes will be determined by the facility on a regular basis through aerial and/or field surveys to ensure that a positive soil balance is maintained for the remaining construction, operation and closure soils required at this facility.

3. Scales and weigh stations, if required for municipal waste landfills.

All incoming waste will be weighed at the scale house and the data will be recorded. The scales and all certified weighmasters will comply with §273.214 of the Municipal Waste Regulations. The PADEP will be contacted and with approval, over-size permitted loads which will not fit on the site's truck scales will be hand scanned for radiation monitoring and an off-site weight generated from a certified scale may be utilized from which a manual entry landfill disposal ticket will be generated. In addition, the weighmasters will be licensed in accordance with the Commonwealth of Pennsylvania Act 64. Scales will be checked once per year, minimum, for accuracy and maintained and inspected thereafter as required. Inspections and accuracy checks will be conducted by qualified personnel. Necessary maintenance and repairs for the scales will be conducted in accordance with manufacturer recommendations. After the site is closed, the scales may be removed from the site.

Tare weights may be stored for rear load and front load vehicles from intercompany and consistent credit customers in the facility's computer system for future use. The stored tare weight may be utilized in-place of a weigh out as-needed. The scale operator can look up the vehicles stored tare weight and manually assign it to a weigh out event. Stored tare weights must be re-tared annually and will be checked periodically at the discretion of the scale operator.

As required by §273.311(b)(11) of the Municipal Waste Regulations, the facility shall document and record information for all vehicles accepted at the facility with a gross

vehicle weight over that specified in §273.311(b)(11). This information shall be maintained in a log book at the facility.

4. Water and air pollution control facilities that are in any way related to the proposed facility.

The leachate is currently removed from the sumps and transmitted to on-site storage tanks for temporary holding and then trucked offsite to an appropriately permitted treatment facility. A Minor Permit Modification is currently pending with the PADEP that proposes an onsite leachate evaporator as the primary disposal method with offsite trucking to be utilized as emergency backup.

This facility operates an active gas extraction system, which includes a blower, enclosed ground flare and an existing on-site gas processing plant for the upgrading of the gas and injection into a natural gas distribution system in the area. Design and operational details for these systems are presented in Form K. These systems will remain in service throughout the post-closure period, until landfill gas generation subsides such that extraction is not necessary. The decommissioning of the gas extraction system is discussed in Form K.

5. Erosion control facilities to minimize the discharge of sediment from the proposed permitted site, total property, or associated properties off-site.

As discussed elsewhere in this narrative, as presented on the drawings for this facility and as identified in Form I, this facility includes channels and sedimentation ponds for the collection and treatment of sediment laden runoff prior to entering natural drainage ways around the perimeter of the facility. Also as discussed elsewhere in this narrative, temporary and permanent erosion & sedimentation controls are installed on a phased basis as additional areas are disturbed.

Stormwater runoff upgradient of disturbed areas shall be diverted around the disturbed area as feasible by use of a series of diversion ditches. Stormwater runoff from disturbed areas shall be collected in channels and directed to on-site sedimentation ponds to remove sediment prior to discharge off-site. Sedimentation ponds have been designed and previously permitted for a 25-year, 24-hour storm event, and will continue to meet the requirements of Chapter 102.

Stormwater runoff from inactive portions of the landfill filled to capacity with waste and covered with intermediate soil cover shall be collected using terraces (benches) and downchute channels. Stormwater runoff from intermediate cover slopes can then be directed outside of the landfill area to the stormwater system only when the intermediate cover soil has been vegetated or otherwise stabilized from erosion.

Site personnel will conduct regular inspections of erosion and sedimentation control structures, and after every unusual storm event, to ensure that they are free from obstructions and are functioning according to design. Should repairs be necessary, they

will be completed as soon as possible. Channels and culverts will remain in service throughout the operation and after closure to convey collected stormwater. Once permanent vegetation is established throughout upgradient areas, sediment basins may be regraded and removed.

6. Equipment storage, maintenance, and other buildings.

This facility utilizes temporary and permanent structures/buildings for the operation and support of the landfill. During the operation of this facility, these structures shall include at minimum a landfill office and scale house. Additional structures/buildings for storage of materials or maintenance may be utilized as needed. Structures/buildings for the operation of the landfill may be relocated, replaced or eliminated as needed throughout the operation of the facility to match the operational requirements. Following final closure of the facility, structures/buildings may be removed or disposed within the landfill.

7. Access roads that are to be located on the proposed permitted site, total property, or associated properties off-site.

Unpaved and paved access roads located on site are utilized for travel by waste vehicles, maintenance vehicles and construction vehicles. Access roads in the vicinity of the landfill will be constructed, relocated and removed as the phased development of the landfill progresses. Access roads for waste vehicles will provide for two-way traffic or one-way traffic with occasional pull-overs for vehicle passing. Temporary access roads will be constructed onto the waste from the perimeter berm as needed.

SECTION E – PERSONNEL TRAINING

Describe training procedures to be conducted for the handling and disposal of special handling waste.

Operator Training

Note: This section presents a brief summary of the employee training related to the disposal of special handling wastes; Form R – Waste Acceptance Plan shall be utilized for specific training requirements for waste handling procedures.

The site manager or his designated representative will be responsible for ensuring that:

- Facility records on waste handling and testing and inspection are maintained;
- Facility inspections are properly performed;
- Incident reports are properly prepared and submitted;
- Contingency plans are implemented;
- Employee records are properly maintained; and

- Air, water, waste, methane, and leachate handling and treatment systems are maintained.

Training programs will primarily be in the form of on-the-job training provided by the site supervisor and other experienced employees. However, training activities may also include off-site professional seminars, certification and training programs, etc. Training will be conducted during construction and throughout waste placement operations. The primary purpose of personnel training is to teach employees to perform their duties in a way that assures the facility is in compliance with all applicable regulations. The employee training program will include appropriate training as needed for different job functions, such as:

General Health and Safety Considerations;

- Security;
- Emergency Procedures;
- Fire;
- Personnel accidents;
- Emergency equipment;
- Emergency communications;
- Accidental spills; and
- PPC, SPCC and other plans contained in the permit.

General Waste Handling and Disposal Procedures

- Routine operating procedures;
- Potential hazards associated with placing waste; and
- Liner integrity.

Training will be provided to each employee throughout his or her employment on-site. Employees operating the scales will be registered scale masters, which will ensure that they have obtained appropriate training. Training records will be maintained on-site. These records will indicate the type of training and date(s) received by each employee.

SECTION F – CONSTRUCTION SCHEDULE

Describe the construction schedule in relation to the grid coordinate system for signs and markers. For a municipal waste landfill, also describe the sequence of operation relating to the grid coordinate system. Explain where uniform permanent physical markers will be placed, how these physical markers will be maintained and of what materials the markers will be constructed. Further, explain how the proposed disposal area perimeter will be distinguished from the perimeter of the total property. What will be written on the required sign, what will it be constructed of, and where will it be located?

Site construction, development and operation will continue to utilize the site survey coordinate system. The existing coordinate system is established on-site by several on-site

survey monuments. The phased landfill development plan will proceed as identified on the plan drawings for the facility.

Monuments may be installed as-needed during the construction and development of the facility. The disposal area footprint will be marked in the field by PVC pipe markers, metal signs or other markers. Other landfill support items such as sideslope riser vaults and pipe cleanouts are also utilized for the delineation of the footprint area.

A facility sign will be located at the entrance to the landfill and will remain in place throughout the life of the facility. The subject sign will be easily identifiable, and will show the name, address, telephone number, permit number and public operating hours for the acceptance of waste for disposal.

SECTION G – SITE PREPARATION

Describe the site preparation plan/schedule for disposal of solid waste at the proposed facility. Include the following:

- 1. Identify the maximum and average daily weight or volume of waste to be accepted at the proposed site, and a detailed justification of these volumes.**

The facility will be operated in accordance with the maximum and average daily waste receipts specified in Form 1. These maximum and average daily waste receipt limitations were previously approved for this facility as part of the North and South Expansion Major Permit Modification.

- 2. For a municipal waste landfill, describe the method of compliance relating to measurement of waste. If 30,000 or more cubic yards of solid waste is expected to be accepted in a calendar year by this proposed facility for disposal, it must be weighed. The operator of this scale must be a licensed public weighmaster. Explain how the scale will be inspected and maintained to assure accuracy. If the proposed facility is not required to have a scale, explain how the waste will be accurately measured when it is received at the proposed facility.**

A truck scale will be utilized at the facility to measure incoming waste throughout the operation of this facility. All incoming waste will be weighed at the scale house and recorded. The scales and all certified weighmasters will comply with §273.214 of the Municipal Waste Regulations. In addition, the weighmasters will be licensed in accordance with the Commonwealth of Pennsylvania Act 64. Scales will be checked once per year, minimum, for accuracy and maintained and inspected thereafter as required. Inspections and accuracy checks will be conducted by qualified personnel. Necessary scale maintenance and repairs will be conducted in accordance with manufacturer recommendations. After the site is closed, the scales may be removed from the site.

As required by §273.311(b)(11) of the Municipal Waste Regulations, the facility shall document and record information for all vehicles accepted at the facility with a gross vehicle weight over that specified in §273.311(b)(11). This information shall be maintained in a log book at the facility.

3. **For a demolition/construction waste landfill, describe the method of compliance relating to measurement of waste. Explain how this waste type will be accurately measured by weight of volume prior to unloading.**

This is a municipal waste landfill facility which also accepts construction/demolition waste. Procedures for measuring and managing these wastes will mirror those followed for other wastes accepted on-site.

SECTION H – WATER QUALITY PROTECTION

Describe a plan that is consistent with basic limitations relating to operating requirements.

1. **Has written approval been given by this Department for background groundwater monitoring?**

This is an existing landfill facility which has been performing groundwater monitoring for an extended period of time. This groundwater monitoring will continue throughout the operation, closure and post-closure period for the landfill in accordance with the approved Groundwater Monitoring Plan for this facility.

2. **Has background groundwater monitoring begun?**

Background groundwater monitoring began at this site in approximately 1999.

3. **How will the operator prevent unapproved special handling wastes and/or residual wastes from being accepted and disposed of at the site? How will the operator handle and dispose of approved special handling waste(s), and what specific measures will be taken to prevent exposure to landfill personnel, haulers and others?**

The Form R for this facility includes an extensive program for the identification, tracking and inspection of special wastes accepted by this facility. This narrative provides a summary of some of the Form R monitoring procedures. Where this narrative and the Form R conflict, the Form R specifications shall be utilized.

Upon arriving on-site, incoming loads may be visually inspected by on-site personnel. As a vehicle is unloaded, equipment operators will visually observe the material as it is unloaded to ensure that no unpermitted wastes are being disposed.

Should unpermitted wastes be encountered, the operator of the associated hauling vehicle will be instructed to discontinue unloading operations. Following this, the operations

personnel shall immediately contact the site supervisor for further instructions. Additional actions may include allowing the completion of disposal, re-loading the suspect vehicle with all dumped materials or other remedies. Records of this event shall be completed as required by Form R.

4. How will the operator prevent hazardous and explosive wastes, and liquids from being accepted and disposed of at the site?

Inspection procedures identical to those described in Item H(3) above will be employed to prevent hazardous and explosive wastes from being accepted and disposed of on-site. Liquid wastes may be accepted at this facility and solidified prior to disposal, consistent with the Form P – Solidification Plan. Records of the suspect hauler transporting materials rejected will be retained on-site for future reference.

5. Is leachate recirculation planned?

At this time, leachate recirculation is not planned for this facility.

SECTION I – OPERATING HOURS

Provide the proposed operating hours of the facility.

The following operating hours will apply to this facility:

Third-Party and Public Haulers **(Waste Transportation Vehicles Not Owned by Noble Environmental)**

Activity	Hours
Waste Acceptance ⁽¹⁾	6 am – 5 pm M-F, 6 am – 1 pm Sat
Waste Disposal ⁽²⁾	6 am – 530 pm M-F, 6 am – 130 pm Sat

- (1) Waste Acceptance – all wastes will be scanned for radiation, weighed and disposed of on the day of acceptance within the disposal hours.
- (2) Waste Disposal – this includes the actual disposal of wastes in the active disposal area. Waste disposal includes the disposal of wastes immediately following acceptance.

Intercompany Haulers **(Waste Transportation Vehicles Owned by Noble Environmental)**

Activity	Hours
Waste Acceptance ⁽¹⁾	24 hours per day, 7 days per week ⁽¹⁾
Normal Waste Disposal ⁽²⁾	6 am – 7 pm M-F, 6 am – 3 pm Sat ⁽²⁾
Staged Waste Disposal (Scaled Previously) ⁽³⁾	5 am – 7 pm M-F, 5 am – 3 pm Sat ⁽³⁾
Staged Waste Disposal (Not Scaled Previously) ⁽⁴⁾	6 am – 7 pm M-F, 6 am – 3 pm Sat ⁽⁴⁾
Staging of Waste Containers / Vehicles	24 hours per day, 7 days per week ⁽⁵⁾
Maintenance/Emergency Activities	24 hours per day, 7 days per week
Construction	24 hours per day, 7 days per week

- (1) Waste Acceptance – this includes wastes being brought into the facility through the entrance. Wastes brought in during normal waste disposal hours will be scanned for radiation, weighed and disposed of on the day of acceptance. Wastes accepted outside of normal disposal hours will be staged and disposed of on the following working day.
- (2) Normal Waste Disposal – this includes disposal of waste which is accepted during the normal waste disposal hours. The wastes will be weighed, scanned for radiation and immediately disposed of.
- (3) Staged Waste Disposal (Scaled Previously) – this includes the removal of a previously weighed waste container or vehicle from the staging area for disposal. The waste would have been accepted on a previous working day outside of normal waste disposal hours and would have already been scanned for radiation, weighed and placed into the staging area. These containers will proceed directly to the active disposal area on the next working day for disposal.
- (4) Staged Waste Disposal (Not Scaled Previously) – this includes the removal of a waste container or vehicle from the staging area for disposal that has not previously been weighed. The waste would have been accepted on a previous working day outside of normal waste disposal hours and would have been placed into storage without being weighed. These containers will be removed from the storage area, hauled to the entrance to be weighed in, scanned for radiation and then immediately disposed of.
- (5) The staging of waste containers / vehicles is discussed in Section K of this narrative. A gate or other restrictive device will be used to keep waste hauling vehicles from accessing the disposal area outside of Normal and Staged Waste Disposal hours. A physical barrier and signage will be present to separate the scaled and not scaled containers. The staging area will be inspected daily by landfill personnel.

The hours shown above are presented as the maximum hours for the facility. The hours may be adjusted (reduced) as needed to meet operational needs.

SECTION J – ACCESS PLAN

Describe the Access Road Plan, including designs, cross-sections and specifications. Indicate design load limits, and identify maximum anticipated loading to be encountered.

- 1. Explain how the access roads and parking and maneuvering areas will be designed, constructed and maintained to prevent erosion and sediment to streams or runoff.**

Facility access roads and parking areas will be maintained to be sufficiently sized to support incoming waste loads and vehicle staging within the property. Access roads, parking areas and maneuvering areas may be constructed of compacted earthen/aggregate material or paved. Roads shall be graded to promote runoff away from parking and roadway areas.

- 2. Will streams or waterways be crossed?**

Neither facility access roads nor parking areas will cross local streams or waterways.

- 3. Describe the drainage system for temporary and permanent roads and parking and maneuvering areas to be located at the proposed facility.**

Facility access roads are and will continue to be sloped to promote stormwater runoff to adjacent areas. Parking and maneuvering areas will be sloped to promote surface runoff to drainage ditches or culverts.

- 4. Describe the materials to be used on permanent or temporary roads and parking and maneuvering areas at the proposed facility.**

Facility access roads and parking areas will support incoming waste loads and be graded to facilitate drainage of water. Access roads, parking areas and maneuvering areas may be constructed of compacted earthen/aggregate material or paved. The existing on-site access roads shall be utilized for the main landfill traffic. As discussed elsewhere in this narrative, temporary and permanent roadways will be constructed as needed.

Will the grade of any access road be greater than 12%?

The maximum sustained grade of an access road will not exceed 12% in accordance with 25 Pa. Code Section 273.213.

- 5. Describe the locations, widths and methods of maintenance for all access roads to be located on the proposed permitted facility, and on the entire property.**

Permanent access roads are shown on the permit drawings for this facility. Access roads, and parking and vehicle maneuvering areas will be inspected by facility personnel for damage. Repairs will be completed as needed. Roadway maintenance will include

brooming, watering and other activities to ensure that roadways are free of mud and dirt accumulation.

SECTION K – ACCESS CONTROL PLAN

Describe the Access Control Plan, including:

- 1. Use and locations of fencing and barriers to control access. Include heights, dimensions and construction materials. Fences are required around impoundments, leachate collection and treatment systems and gas processing facilities, if these facilities have not been included within the site fence.**

Access control for this facility includes natural barriers, gates across roadways, and fencing around sedimentation ponds (where natural features do not include natural barriers), gas management areas and sensitive support facilities. Natural barriers contributing to access control at the site include steep topography and wooded areas surrounding portions of the property.

In addition to natural barriers, gates on access roads also control access to the facility by vehicles. Support facilities including the leachate storage area, gas management compound, and sedimentation ponds shall be enclosed by fencing or access limited by other means.

- 2. Site security provisions.**

Site security provisions include the natural barriers, gates and fencing identified in Item K(1). Public hours of landfill operation are displayed on a sign at the entrance to the landfill. During times when the landfill is not receiving waste, gates which access the active landfill disposal area will be closed and locked to restrict vehicular access.

ROLL OFF BOX STAGING AREA

A staging area for waste hauling vehicles / containers will be established at this facility in the area delineated on Figure 1, included with this narrative. Signage will be installed to identify the staging area. Alternative or revised locations may be proposed to the PADEP in writing in the future and will only be utilized once written letter or e-mail approval is granted. The shape or location of the staging area may vary from that shown on Figure 1 to best fit operations. Gate(s) or other methods will be installed to restrict vehicular access to the active disposal area during times when the landfill is not receiving waste.

This staging area may be operated on a 24-hour basis where the hauling drivers can place a properly tarped loaded box on the ground and retrieve an empty box to continue work activities. The full staged containers shall be marked or separated from the empty containers to allow identification of the full staged boxes. Full staged boxes shall adhere to the applicable PADEP waste storage regulations. Prior to disposal, all waste containers

shall have been weighed and passed through the fixed portal radiation detectors. All waste disposal will occur within the hours presented in Section I.

TRUCK/VEHICLE STAGING

Full trucks arriving outside of waste acceptance hours will be staged in the designation staging area. This vehicle staging area is presented and described on Figure 1, included with this narrative.

The truck/vehicle staging area may be operated on a 24-hour basis. During staging, trucks shall be parked in the designated staging area so as not to impede normal traffic flow along the landfill entrance road or roads located within the landfill. Parking along the side of the landfill entrance road or roadways within the facility will be allowed. While staged, all loads shall be properly tarped and secured within the vehicle/trailer. During the next working period where waste disposal is taking place, all staged vehicles and/or trailers shall be disposed at the landfill.

WASTE LOAD / CONTAINER THAWING

Vehicles and containers which contain frozen materials may require additional handling methods such as applying heat or utilizing an excavator or other piece of equipment to remove the waste materials. Once the material is thawed or prepared for disposal through other techniques, the container will be taken to the active disposal area and processed similar to any other newly arriving waste.

STAGING AREA CONTROL PLAN

When waste trucks / vehicles / containers are to be staged which are not owned or controlled by the landfill or a directly related hauling company (same parent corporation), the facility shall maintain control of the staging area(s) by utilizing on-site landfill/security personnel (here after referenced as landfill monitor personnel) for the delivery check-in process. Waste trucks / vehicles / containers not controlled by the landfill or a directly related hauling company may not enter the site for staging unless a landfill monitor is on-site. Trucks / vehicles / containers controlled by the landfill or a directly related hauling company (same parent corporation) may be staged in accordance with previous PADEP approvals without the presence or control of a landfill monitor.

Loaded waste hauling trucks / vehicles which arrive at this facility outside of the approved waste disposal hours shall enter through the main landfill entrance gate. If landfill/security personnel are on-site, the landfill monitor personnel may review the appropriate shipping documents and direct the load to a staging area. Shipping documents may be staged with the waste container or put in an on-site office location where a container tracking ID can be utilized to match a container to the shipping documents. Information contained on the shipping document may include generator information, Transportation Company and landfill information completed, including the SAN number assigned to the project; this

information may vary based on the waste type being staged and if the waste has been pre-approved for disposal.

Staged trucks / vehicles / waste containers received after disposal operations hours shall be documented on a log. If a roll-off box is staged, the box number shall be placed on the log and the manifest, if the roll-off does not contain a box number, a unique id shall be assigned and affixed to the container. If a truck or trailer is staged, truck number may be used.

In the event a roll-off box, trailer or other waste container is received which may be leaking, it will be directed by the landfill monitor or other landfill personnel to be staged in an inactive lined, non-closed portion of the landfill. Loads staged within the lined landfill area due to the condition of the container shall be allowed to access the landfill area through locked gates which will be immediately re-locked following the staging of the load. Any load staged within the lined landfill area due to the condition of the container shall be identified on the tracking form and promptly removed from the landfill and processed through the landfill entrance area upon the commencement of the waste disposal operations at the site to minimize the staging of loads outside of a normal staging area.

For waste loads which have manifests, they shall not be signed until the waste load is emptied during normal disposal operating hours. As staged loads are disposed, the log referenced above shall be updated to depict that the load has been removed from the staging area, weighed (including radiation screening) and properly disposed.

3. Describe the facility sign that will be placed at the junction of each access road and public road.

The sign currently located at the facility access road connection with the public road will be maintained. This sign will include the facility name, the facility solid waste permit number, and public operating hours. Additional information will also be presented on this sign as deemed necessary by the facility. The information may be changed on this sign by the facility as needed when such things as the public operating hours change. Signs may be used within the landfill facility at roadway intersections or other locations deemed necessary by the facility as needed throughout the landfill.

SECTION L – NUISANCE MINIMIZATION AND CONTROL PLAN

Describe the Nuisance Control Plan, and include details regarding the methods by which the operator will perform regular, frequent and comprehensive inspections to evaluate the effectiveness of the plan for Vectors, Odors, Noise, Dust, Litter, and Other Public Nuisances. The plan needs to include the following items:

1. An inventory and map of areas at the facility that has the potential to cause nuisances.

- Dominant wind direction

The dominant wind direction is westerly as taken from “Climatic Wind Data for the United States” for the period of 1930 to 1996 as prepared by NOAA.

- **Hauling, truck staging, and radiation staging areas**

Refer to Figure 1 included here for the truck staging area and Form X for the radiation staging area.

- **Leachate and gas management components**

Refer to the applicable permit, Form 25 and Form K for detailed information for the leachate management and gas management components. The leachate management system includes a network of piping with cleanouts, manholes, pump stations, leachate storage and processing tanks a leachate evaporator and leachate truck loadout operations for offsite disposal. The gas management system includes gas extraction wells, gas collection piping, a high-btu gas plant, blowers and flares and a gas condensate management system.

- **Disposal areas, intermediate covered areas, anchor trenches, and trash relocation activities**

The current landfill disposal areas and intermediate covered areas are presented on the drawings submitted with the most recent Annual Operation Report for this facility. The location of the liner system permanent anchor trenches are at the permitted limit of waste placement. Waste relocation activities are not planned at this facility.

- **Landfill cell construction, fill and capping sequences**

Refer to Section C, Item 2 of this narrative.

- **Landfill siting and position to nearby residences**

The location of the landfill disposal area meets all siting criteria required under Form D.

2. Description of nuisance related monitoring or response activities

- **Organization flow chart with each person’s duties and responsibilities with regard to this plan**

Refer to the Contingency Plan for Emergency Procedures, included with Form L. Generally, the site personnel responsibilities with respect to nuisance related monitoring and response activities are summarized below:

General Manager – The General Manager is responsible for the overall operation of the landfill. The General Manager or designee shall confirm that nuisance monitoring is being performed in accordance with this plan. If nuisances are identified as part of the monitoring or from complaints, the General Manager or designee shall confirm that proper personnel and efforts are being applied to correct the nuisance concern. The General Manager may not perform the actual monitoring or implement the corrective actions, the General Manager responsibilities are limited to the oversight to ensure that this plan is carried out as identified here.

Landfill Operations Manager – The Landfill Operations Manager or designee will perform the nuisance monitoring activities. If nuisances are identified as part of a regular monitoring event, the Landfill Operations Manager will implement changes with the assistance of other landfill staff to minimize the nuisance in a timely manner. The Landfill Operations Manager will identify and report any significant nuisance monitoring findings to the General Manager.

- **Notification list for the facility and respective agencies**

Refer to the Contingency Plan for Emergency Procedures, included with the Form L. The Landfill Operations Manager will be familiar with the site and permitting agencies where current contact information will be maintained by them for rapid notification when required.

- **A description of how the facility will be operated to eliminate off-site nuisances**

The “elimination” of off-site nuisances, is infeasible, and is in excess of the landfill operating requirements established by PADEP regulations. Per PA Code 25 §273.136 and §273.218, (titled “Nuisance Minimization and Control Plan” and “Nuisance Minimization and Control”, respectively) operators of landfills within the State of Pennsylvania are required to “minimize and control” potential offsite nuisances. To that regard, the Sanitary Landfill will implement the following strategies to minimize the occurrence of offsite nuisances.

a. Monitoring frequency and locations

Sanitary Landfill personnel or outside consultants hired by Sanitary Landfill perform monitoring of the landfill gas management system well field, perimeter monitoring probes and will conduct surface scans of the waste disposal areas. The perimeter LFG monitoring probes, surface scans and LFG extraction wells are monitored in accordance with the requirements and frequency identified in the Form K and the Title V permit for the facility. The integrity of the daily and intermediate cover are observed and documented as part of the surface scans.

As part of normal daily operations, the Landfill Operations Manager or designee shall perform daily on-site nuisance observations. These on-site

observations shall be performed during the working day as the staff travels the on-site roadways as part of normal operational activities. This will include travel on the landfill perimeter road a minimum of once per day. If on-site nuisances are detected they will be investigated and, if it is determined that the detected nuisance may have the potential to result in an off-site nuisance, an off-site nuisance survey shall be performed. The off-site nuisance survey shall be performed in those off-site areas most likely to be affected by the nuisance based on the weather, operation and other conditions. A more detailed description of nuisance odor mitigation techniques is presented in the Nuisance Odor Mitigation Plan presented in Attachment 14-4.

b. Inspections for odorous loads

It can be expected that the majority of incoming waste loads will possess some level of odor upon acceptance. If an incoming load at the working face is determined to possess particularly strong odors, the load will be given special attention by spreading at the working face and mixing with other waste materials being disposed at that time. Loads identified to potentially generate odor nuisances will be identified upon receipt at the landfill, based on past experience. If a load arrives which is suspected to generate odor or other nuisances, the landfill operational staff will be contacted via radio or phone by the scale house or Landfill Operations Manager so that the load can be immediately handled upon arrival at the active disposal area.

If certain waste types or waste generators are identified as having a high likelihood of generating a nuisance for the landfill, the landfill unilaterally may elect to not receive this material. This evaluation will be based on the landfill operational experience if a relationship is identified between waste types or waste generators and potential nuisances.

c. Monitoring and inspections of the landfill's gas/odors controls

Refer to Form K for information on the landfill gas management system and the Nuisance Odor Mitigation Plan included as Attachment 14-4.

d. Dust suppression

Refer to Section L, Item 5 of this narrative.

- A description of internal and external communications and alarms

Refer to the site's Form L / Contingency Plan for Emergency Procedures.

3. Describe the facilities meteorological monitoring program

Refer to the permitted Form 54 for Background Meteorological Monitoring for a description of the facility's meteorological monitoring program, including:

- Meteorological weather station location
- Data to be collected
- Activities limited by the weather and the facilities threshold

In the event that the meteorological equipment is malfunctioning, Sanitary Landfill will utilize the closest publicly available weather data to obtain the information required as part of Form 54 until the equipment is operating correctly.

4. Detailed plan for preventative maintenance and nuisance controls

- Description and location of portable/temporary odor controls

Sanitary Landfill has an active landfill gas management system that is adjusted with control valves placed within the well field piping as well as control valves at each well head. Adjustments to the landfill gas management system are performed as part of the well head monitoring; additional adjustments to the well field may be performed if appropriate to minimize non-transient odors should they be detected.

Other possible temporary odor controls that may be implemented consist of promptly disposing of waste loads that are identified as strongly malodorous and covering with daily cover and/or other waste. See the description below for the use of soil daily cover to control potential odor nuisances.

If an odor neutralizing misting or other control device system is deemed necessary, an appropriate system will be placed into operation. Effectiveness of the system will be evaluated during daily landfill monitoring activities as discussed previously.

- Preventative nuisance measures used during the facilities construction

A water truck and power broom may be used to control dust generated during landfill and construction activities.

- Description of the nuisance suppression program and the location of any fixed odor controls

The landfill facility operates an active landfill gas management system. Form K presents a description of the landfill gas management system components.

Additional measures include the application of daily cover. The site is permitted for the use of several alternative daily cover materials. However, if on-site odor nuisances are observed which may have the potential to result in off-site nuisances, the application of soil daily cover may provide an effective means to cover the

waste and minimize odor nuisances. This shall include the placement of on-site soils excavated from borrow areas. The daily cover for odor minimization shall include a soil or soil/rock mixture where once placed by the landfill operational equipment.

- **Procedures for handling nuisance prone waste**

When incoming loads of nuisance prone waste such as sewage sludge arrive at the facility scale house, the nuisance loads may be disposed in the active landfill area at a staggered rate. This may diminish the possible odors that may emanate from the nuisance load as it is disposed in the active landfill area. Once the load is disposed in the active landfill area, the material shall be promptly covered with soils and/or other waste. Any nuisance loads that wait for disposal shall remain covered to minimize the migration of odors.

Loads which potentially generate odor nuisances will be identified upon receipt at the landfill based on past experience. If a load arrives which is suspected to generate odor or other nuisances, the landfill operational staff will be contacted via radio or phone by the scale house or Landfill Operations Manager so that the load can be immediately handled upon arrival at the active disposal area.

If certain waste types or waste generators are identified as having a high likelihood of generating a nuisance for the landfill, the landfill may unilaterally elect to not accept this material. This evaluation will be based on the landfill operational experience if a relationship is identified between waste types or waste generators and potential nuisances.

- **Dust minimization plan**

Road watering and sweeping shall be performed as needed during construction and daily operations when vehicle travel may generate off-site visible dust emissions.

- **Employee and contractor training**

Refer to the Contingency Plan for Emergency Procedures included with Form L.

- **Inspection frequency for odor management equipment**

Components of the active LFG system are inspected in accordance with the requirements identified in Form K and the Title V permit for the facility.

- **Emergency equipment**

Refer to the Contingency Plan for Emergency Procedures included with Form L.

5. Provide specific countermeasures that will be undertaken by the facility in the event of a nuisance for:

All nuisance situations identified below and any others will be evaluated by facility management (identified in Section L.2 of Form 14). The initiation of mitigation activities to an observed nuisance will be determined on a case-by-case basis and will be initiated by the facility management identified in Section L.2.

- Dust suppression from hauling, waste placement, or processing activities

Fugitive dust will be suppressed by the use of the following practices:

- a. The paved portion of the main access road will be cleaned by watering or sweeping, as needed.
- b. Unpaved portions of the access roads will be watered when necessary and weather permitting.
- c. Upon leaving the disposal area, the wheels of the vehicles which were used to transport wastes will be cleaned, if necessary, to prevent earthen material from being carried out onto roadways. The wheel wash will be utilized as needed. If the wheel wash is down for maintenance or repair, vehicle wheels will be cleaned manually using a pressure washer, hose or other means of preventing earthen material from being carried out onto the roadway as needed.
- d. Earth or other material deposited by trucking or other means on the paved roadways, including public highways, shall be removed from the paved roadways.
- e. Speed limit signs shall be posted for access roads and active disposal roads. Speed limits will not exceed 15-mph for access roads and 10-mph for active disposal roads.
- f. All trucks entering the landfill shall be covered.
- g. Open burning of rubbish will not be permitted.

The items identified above are regular landfill operational and maintenance items which are to be implemented to minimize dust nuisances. If dust nuisances are observed during on-site nuisance observations or dust complaints are received, the facility shall review the items identified above to confirm that they have been adequately implemented. Additionally, a review shall be performed to assess the sources of the dust nuisances. The identification of the dust nuisance sources shall be utilized to outline enhanced or additional standard operating practices to minimize the source or provide more rigorous operational procedures to minimize and control the nuisance.

- **Odors**

Information is presented below concerning the identification of odor nuisances at the site, assessment of odor sources and corrective actions to be taken to minimize odors. It is assumed that the primary sources of odor will either be (a) during waste acceptance activities or (b) landfill gas related. A discussion of potential odors from waste acceptance is contained below, while a discussion of landfill gas related concerns is captured under the heading “Landfill Gas Detection”.

a. Odors from Waste Acceptance

The facility is permitted by PADEP to accept sewage sludge which may produce detectable odors during transport to the landfill. Transport-related odors are not the facility’s responsibility. However, once at the landfill, steps will be taken to inspect incoming sludge to determine if prompt disposal is necessary to minimize sludge-related odors. Should the incoming sludge pose a significant potential for strong and persistent odors outside the permit boundaries, the sludge shall be promptly disposed in the active landfill area and covered with soil and/or other waste shortly after disposal.

Loads which may potentially generate odor nuisances will be identified upon receipt at the landfill based on past experience. If a load arrives which is suspected to generate odor or other nuisances, the landfill operational staff will be contacted via radio or phone by the scale house or Landfill Operations Manager so that the load can be immediately handled upon arrival at the active disposal area.

If certain waste types or waste generators are identified as having a high likelihood of generating a nuisance for the landfill, the landfill may unilaterally elect to not accept this material. This evaluation will be based on the landfill operational experience if a relationship is identified between waste types or waste generators and potential nuisances.

b. Nuisance Odor Observation Follow-up

In response to identification of potential on-site nuisance odors at the facility which have the potential to include in off-site nuisances, the Landfill Operations Manager or designee may:

- Evaluate potential on-site sources for the cause of the nuisance odor:

- LFG Management System

- Extraction wells / horizontal collector points
 - Conveyance piping
 - Condensate sumps

- LFG Flare and associated components
- Valves

Leachate Management System

- Sumps
- Manholes
- Piping

Cover System

- Active Face
- Daily cover
- Intermediate Cover
- Final Cover

Other

- Evaluate the size of the working face against the incoming tonnage rate (i.e., is it appropriate for the amount of waste being accepted?).
- Evaluate the condition of daily and intermediate cover. Inspect for ruts, gaps, inadequate thickness, appropriate materials, application of greater thickness material, and the use of alternate daily cover material.
- If an odor complaint was received, compare present odor complaint to any past complaints. Identify any correlation between the current complaint and any past complaints (e.g., do the complaints come at a specific time of day or when a specific operation is taking place on the site?).

Refer to Form 54 for the approved Meteorological Monitoring Plan.

- **Vectors**

Daily cover, or an approved Alternative Daily Cover (ADC) shall be applied to the waste to minimize the attraction of insects and rodents to the landfill. The landfill will also be graded to eliminate standing water to minimize the attraction and breeding ground for certain insects. Due to daily cover practices, vectors have not been a significant or consistent problem at the facility.

Upon observation of vectors at the facility:

- a. The Landfill Operations Manager or designee shall assess the source which is attracting the vectors. This may include waste materials which the vectors are eating, the warmth of portions of the gas system in cold months or other items which may attract vectors.

- b. Upon identification of the vector attraction, the landfill operations staff or an outside vector control company shall be contacted to seal/minimize the vector attraction where the vectors will no longer be attracted to that area.
- c. Damages to the soil cover, gas system components, leachate components or other items shall be repaired as part of this process.
- d. Following the identification of the vector attraction and elimination of that interest, the landfill operations staff shall to the greatest extent possible minimize that attraction in the future to minimize the presence of vectors.

- **Landfill gas detection**

Generally, monitoring for landfill gas related odors will be conducted as described by the approved Form K for this facility, odor surveys and/or as mandated by NSPS requirements or other PADEP requirements. Corrective actions will likewise be implemented per the direction of these documents.

The site has perimeter monitoring probes and conducts surface emission monitoring. Refer to Form K for more details about the surface emission monitoring plan.

To facilitate the collection of landfill gas, vertical extraction wells are drilled into the waste mass at such times that are practical throughout the life of the site. These wells will be spaced as needed throughout the waste mass. Landfill gas extraction wells shall be installed as required by the NSPS regulations considering the age of waste placement and as needed to further collect landfill gas and minimize LFG odors. Additionally, horizontal gas collectors may be installed to collect and manage gas on an interim or permanent basis. Installation of the landfill gas management system shall be staged based on the pace of development of the landfill disposal area.

Surface scans of the landfill are performed in accordance with the NSPS regulations. This requires the performance of surface scans at a set geometric pattern within certain portions of the landfill area. Areas of the landfill where surface scans are above the required trigger level are to be re-monitored and corrected as required by the NSPS requirements.

The implementation of the surface scans and corrective actions will minimize nuisances resulting from fugitive emissions or landfill odors which may result in nuisances.

- **Litter and Litter during windy conditions**

Portable fences are placed downwind of the prevailing wind directions along the edge of the landfill disposal area. With each successive phase, the fence is moved to the edge of the next phase of construction/waste placement. The fencing shall be cleaned as needed by site personnel who then dispose of the litter in the active disposal area. Fugitive litter that escapes the fencing is picked-up as conditions allow.

Landfill operational practices identified above shall minimize litter nuisances. If the operational procedures are not adequate and litter is found to be getting outside of the landfill facility area, the steps below shall be performed:

- a. Blown litter shall be collected and removed as soon as possible.
- b. Access roads shall be observed for the presence of litter and cleaned as needed.
- c. The location of the litter fences (temporary and permanent) shall be reviewed to determine if they shall be re-configured or if additional fencing is needed.
- d. As part of the active disposal operations review, it should be confirmed that waste vehicles are not de-tarping or opening waste discharge areas of the truck and exposing them to wind earlier then needed.

- **Noise**

Noise caused by trucks and construction equipment shall be suppressed by maintaining the proper functioning machinery. Mufflers shall continue to be routinely checked and replaced whenever necessary. The geography of the disposal area also helps to soften noise, as considerable distance exists between the site and occupied dwellings or businesses. Trees are utilized where ever possible to obstruct the view of the site from public areas. This, too will aid in dampening noise from the facility.

If landfill operations and construction results in off-site noise nuisance, site personnel will review the size, type and operation of the site equipment to determine if equipment repairs or modifications are needed to minimize any nuisances.

6. Provide any additional information as requested by the Department, Host Municipality, or Host County.

At this time, there is no additional information requested by the Department, Host Municipality, or Host County.

SECTION M – LITTER CONTROL PLAN

Describe the Litter Control Plan, and explain how the operator will prevent litter from blowing or becoming deposited off-site, including:

1. The types, locations and maintenance procedures for litter fences to be used at the proposed facility.

Blowing refuse may be controlled on-site by portable litter control fencing placed downwind of the working face to catch airborne trash. Fencing will consist of wood and/or wire snow fence or plastic mesh. The facility shall repair the fence, as necessary.

2. The frequency of litter pick-up and disposal.

Litter escaping the working face will be picked from fencing, tree breaks, buildings, and the surrounding area as-needed (approximately on a weekly basis) and disposed of on-site. The frequency for gathering blown litter will be increased should the need arise.

SECTION N – SALVAGING

Explain if salvaging will occur on-site during hours of operation and non-operation. If yes, describe the methods of control over salvaging, and how salvaging will occur without interfering in the operation of the landfill. Further, describe the methods for on-site movement and storage of salvaged materials, as well as off-site storage and transportation of salvaged materials.

Salvaging of materials will not be allowed or conducted unless salvaging is controlled by the operator to prevent interference with prompt and sanitary operations and is conducted in accordance with 25 PA Code Chapter 273.

1. Salvaging operations will occur at the working face as the waste is unloaded. Only site personnel or other properly trained subcontractors will be allowed to work in this area. Materials will be pulled out after they are discharged from the hauling vehicles and initially spread, prior to compaction.
2. Materials planned to be salvaged include but are not limited to wood, tires, concrete, wallboard, metals, and other materials which can be otherwise recycled or reused.

3. Salvaging operations will be conducted at the operator's sole discretion and may not occur routinely.
4. Salvaged materials will be stored either on the lined area in contained, discrete areas or will be transported and placed into on-site storage containers/boxes located within the facility. Salvaged materials will be prevented from blowing or otherwise moving out of the storage area. Containers will be such that they can be easily handled, will prevent insects and rodents from infesting the contents, will not, leak and will effectively contain the materials between collections. Containers will be appropriately labeled as to the general name of the contents ("METAL WASTE", "WOOD WASTE", etc.).
5. Unless approved otherwise by the Department, materials will be stored up to one year on site before being removed.
6. As materials accumulate, they will be transported off-site, as markets allow and are practical.
7. Equipment to be used may include any combination of a loader, backhoe, excavator, off-road truck or dozer as needed.
8. As needed, measures will be taken to prevent and minimize vectors. If vectors become present, they will be promptly exterminated.

SECTION O - AIR QUALITY CONTROL

Describe the methods to control dust, and minimize and control air pollution at the proposed facility from exceeding any ambient air quality standards.

Fugitive dust will be suppressed by routine watering of paved and unpaved access roads, roadway shoulders, and parking lots. Paved and unpaved access roads will be graded so that water runs off and does not pool. Additionally, trucks entering the facility will be covered, and a 15 mile per hour speed limit will be enforced on unpaved access roads. This facility includes perimeter buffers to minimize dust impacts to the surrounding areas.

SECTION P – WASTE PLACEMENT

1. Initial procedures for placement of waste on the liner system.

Upon completing construction and gaining PADEP approval for each new disposal area, an approximate initial lift of select refuse shall be placed approximately eight feet thick as a single lift. The select refuse will consist of items that do not have the potential to penetrate the protective cover, or clog or puncture the leachate collection zone or liner system. Select refuse in this lift will not include construction/demolition waste, treatment plant sludge, or large, bulky items. Refuse placement in the initial lift will be conducted under visual inspection by on-site spotters and/or attendants.

2. **An explanation for the location(s) of unloading area(s) at the proposed facility, and methods by which loaded collection vehicles will be directed to unload promptly at these areas. Waste cannot be unloaded where continuous or intermittent contact would occur with the groundwater table.**

Facility personnel will designate the area(s) to be used for waste disposal. Traffic will proceed to the working face along the site access road(s). Once situated properly at the working face, waste haulers will be instructed to unload their vehicles. Unloaded vehicles will be directed back to the access road(s) and will exit the site following any necessary empty weight recording.

RESIDENTIAL/CUSTOMER DROP OFF AREA

In addition to the active disposal area located within the landfill limits, a residential/customer drop-off area may be maintained within the facility limits. The drop off area shall include the placement of a roll off box that will eliminate the need for residential or other small load drop off to enter the main disposal area of the landfill. Based on the load quantity and vehicle type, the landfill scale operator will decide if the customer is to be directed to the main landfill disposal area or utilize the customer drop off box. The roll off box positioned for customer drop off shall be periodically emptied by landfill personnel or others. Since each customer disposing within the roll off box positioned at the customer drop off area was weighed and ticketed, the roll off box from this area does not need to be weighed prior to or following disposal within the main landfill disposal area. The current location of the residential / customer drop off area is shown on Figure 1 included here. This location may be changed as needed to suit operations so as the location remains within the facility limits.

3. **Procedures for and the degree of compaction of solid waste. Describe the number and thickness of lifts, and explain how solid waste will be spread and compacted in layers.**

Following the initial eight foot lift of select refuse, subsequent lifts will be placed and compacted to a thickness where effective compaction can be achieved with the equipment utilized at this site, based on site experience, equipment manufacturer information or other source. Compaction will be achieved using a minimum of two passes with the bulldozer/compactor or as otherwise determined by the landfill personnel.

4. **Describe how the working face will be managed, and:**

- (i) **compacted and covered on a daily basis for municipal waste landfills, and;**

Following the initial eight foot lift of select refuse, subsequent lifts will be placed and compacted to a thickness of approximately two feet. The working face will be maintained as small as possible at all times and sideslopes will not exceed a slope

of 50%. Daily cover soil or an approved alternative will be placed over the waste at the end of each working day. The top of each lift will be graded to shed surface water runoff from the landfill operations area.

- (ii) **kept to a size which can easily be compacted for Construction/Demolition waste landfills;**

This item is not applicable; the facility is a municipal waste landfill.

- (iii) **how water that contacts the working face will be contained, and not combined, with surface water runoff.**

Disposal operations will be configured to promote surface runoff for all water not in contact with the working face. For each new disposal cell, waste placement will quickly bring the subject cell to surrounding grade. Intermediate cover will be utilized as described in Section S below, and will be stabilized. Stormwater from areas with stabilized intermediate cover soil will be directed to perimeter ditches by gravity. Stabilization of intermediate cover slopes may include the establishment of vegetation, tracking and application of mulch or other stabilization methods to reduce erosion of the slope and the discharge of sediment laden water. Any leachate seep(s) identified on slopes where surface water is being directed to perimeter ditches shall be immediately repaired. Until such time that the seep(s) are repaired, the runoff shall be separated from the surface ditches/channels or directed into the leachate collection system to allow for treatment of liquid as leachate.

Water that contacts the working face will be absorbed by the waste or contained within the perimeter berm. Such water will drain through the leachate collection system.

SECTION Q – DAILY COVER

For a municipal waste landfill, describe the frequency of placement, composition, design requirements, storage duration and location(s), maintenance (including revegetation and erosion/sedimentation controls), and thickness of approved daily cover to be placed on exposed solid waste at the proposed site. Include a quality assurance plan.

Exposed solid waste shall be covered at the end of each working day, at the end of every 24 hours, or at the completion of each lift, whichever interval is less. No daily cover slope shall exceed 50% in slope. Daily cover material will be capable of preventing vectors, odors, blowing litter, other nuisances and controlling fires. It will also be capable of allowing loaded vehicles to successfully maneuver over it after placement and will cover the solid waste without significant change in its properties. Daily cover shall also be consistent with the Form R for this facility. A five-day supply of daily cover soil shall be available on-site at all times (including borrow areas). Table A-3 in Appendix A of the CQA/QC Plan presented with Form 24 includes a summary of daily cover soil testing including visual monitoring of material quality and placement criteria.

For cases where daily cover or intermediate cover is placed on slopes above a newly lined area that does not include waste disposal, care shall be taken to minimize the rolling of large soil cover pieces/rocks down the slope to the lined area. This protection to the newly lined area shall be achieved through the use of soil cover with particle sizes less than 6-inches (maximum) or through the installation of a bench or slope catchment area that would act as a barrier to large diameter material reaching the newly lined area.

- A temporary bench may be placed on the interim slope above the toe of that slope to control runoff and act as a barrier to large diameter soil materials reaching the newly lined area. This bench shall be graded into the waste slope or constructed as a “tack-on” bench using soil after the slope is graded and filled.
- A catchment area may also be utilized to protect lined areas below an interim slope. The catchment area may include a set back at the base of the waste slope with a grade sloping towards the slope or some other offset area that would serve to collect large diameter materials and protect a newly lined area below the slope.

Soil material with a maximum particle size of 6-inches shall be used below the bottom bench or catchment area. Soil cover material with larger diameter particles which satisfy the cover performance requirements may be used above the bench area since protection to the lined area is provided by the bench or catchment area.

Alternative daily cover materials may be used at the facility including geosynthetic tarps and soil like materials. The facility currently has the approval to utilize several geosynthetic tarps (Fabrene – RTGPN9N9, Pactec – FRU, Integra 12FR and Cormier WP1440FR) foundry sand and RECMIX slag. Additional alternative daily cover materials may be used as discussed in Attachment 14-6.

SECTION R – INTERMEDIATE COVER

Describe the frequency of placement, composition, design requirements, storage duration and location(s), maintenance, and thickness of approved intermediate cover to be placed on partial or completed lifts at the proposed site. Explain how slopes, not to exceed 50%, will be maintained, covered, compacted, and revegetated to control erosion and sedimentation. Include a quality assurance plan and identify procedures to establish intermediate elevations.

Intermediate cover shall be placed within 7-days of waste disposal within an area that has reached final grade or where the facility does not intend to place additional waste for a 6-month period. No intermediate cover slope shall exceed 50% in slope. A discussion is included above in Section Q – Daily Cover for the protection of newly lined areas below a slope area. These same methods including material selection with maximum particle size less than 6-inches or the establishment of bench / catchment areas shall be implemented for intermediate cover slopes.

Intermediate cover material shall be capable of preventing vectors, odors, blowing litter, other nuisances and controlling fires. It shall also be capable of allowing loaded vehicles to successfully maneuver over it after placement and will cover the solid waste without significant change in its properties. Intermediate cover shall also control infiltration of precipitation, control erosion & sedimentation and allow germination/propagation of vegetative cover. Intermediate cover areas shall be seeded in accordance with the Form H – Revegetation Plan as feasible with consideration to landfill construction, landfill operation, growing seasons and likelihood of germination. A five-day supply of intermediate cover soil shall be available on-site (including borrow areas). Table A-3 in Appendix A of the CQA/QC Plan presented with Form 24 includes a summary of daily cover soil testing including visual monitoring of material quality and placement criteria.

During waste placement operations, this facility has slopes and bench locations field survey staked on a periodic basis to assist in the control of waste placement operations. This facility is mapped with aerial photography typically once per calendar year at which time the interim and exterior grades of the facility are checked against the permitted design. Additionally, as required by the PADEP Annual Operations Report Form, drawings are prepared and submitted to the department that include a comparison of actual waste filling grades and the maximum permitted grades for the facility, to allow a direct comparison and verification.

SECTION S – FINAL COVER SCHEDULE

Describe the time period that approved final cover will be placed on the proposed site, the methods by which final cover will be placed, and composition and design requirements, including:

As portions of the landfill reach final grade, the cap system, including gas extraction and surface water controls and revegetation shall be installed. The lag time between reaching final grade and installing the cap system shall be dictated by the acreage required for efficient construction of the cap with consideration given to the open landfill area such that the open area does not exceed that specified in the bonding estimate for the facility.

- 1. A cap (comprised of a uniform and compacted one (1) foot layer of clay or synthetic type material, if approved).**

Twelve inches of intermediate cover soil shall be uniformly graded, smooth drum compacted and proof-rolled. Where necessary, the surface will be prepared to meet the specifications of the geomembrane manufacturer.

The geomembrane will be rolled over the prepared surface, and membrane boots will be fabricated around gas extraction wells. Seaming and anchoring procedures will be performed in accordance with the CQA/QC Plan included in Form 24.

- 2. A drainage layer to prevent erosion and transmit flow of surface water.**

Double-sided drainage composite, consisting of a geonet with geotextile heat-bonded to both sides, will be rolled into place over the geosynthetic membrane.

3. A uniform and compacted layer of soil at least two (2) feet in thickness.

Twenty-four inches of final cover soil will be placed over the geosynthetic drainage layer. The properties of the final cover soil are discussed below.

SECTION T - FINAL COVER CHARACTERIZATION

Describe the characteristics of final cover, including:

1. physical properties of final cover.

Detailed specifications for final cover soil are presented in the CQA/QC Plan for this facility.

2. capability of controlling fires.

Final cover material shall be capable of controlling fires.

3. load-bearing capacity.

Final cover material will be capable of allowing loaded vehicles to successfully maneuver on the final graded surface. Traffic on the cap will, however, be limited to the more stable roadbed surfaces of terraces and access roads as much as possible.

4. capability of supporting vegetation.

The final cover soil shall be capable of supporting vegetation. Sufficient soil analyses will be conducted prior to capping to determine the need, if any, for soil conditioners/fertilizers. Revegetation procedures will follow those described in Form H.

5. prevention of nuisances.

Final cover material shall completely contain the refuse mass and will be capable of controlling vectors, odors, blowing litter, and other nuisances.

6. Include a quality assurance plan, and identify procedures to establish final elevation.

During waste placement operations, this facility has slopes and bench locations field survey staked on a periodic basis to assist in the control of waste placement operations. This facility is mapped with aerial photography typically once per calendar year at which time the interim and exterior grades of the facility are checked against the permitted design. Additionally, as required by the PADEP Annual Operations Report Form, drawings are

prepared and submitted to the department that include a comparison of actual waste filling grades and the maximum permitted grades for the facility, to allow a direct comparison and verification.

SECTION U – FINAL CONFIGURATION

Describe the grade of the final slopes of the proposed facility, detailing design, installation, maintenance, slope stability, erosion control, compaction, seeding, revegetation, percolation rates, and surface runoff.

- **What will the maximum grade of the final surface be?**

Final grades shall not be less than 3% and will not exceed 33%.

- **What will the average grade of the final surface be?**

Terraces (benches) will be integrated with the final cover configuration to collect and direct surface water runoff. These benches will be 30-ft wide with a maximum vertical spacing of 50-ft with a 3H:1V slope between benches.

- **Are terraces to be used on the final surface? If yes, describe design, construction, grades and maintenance of the terraces.**

Stormwater runoff from closed portions of the landfill filled to capacity will be collected using terraces (benches) and downchute channels. This water can then be directed outside of the landfill area and controlled as stormwater. Terraces/benches and other erosion and sedimentation control structures shall be periodically inspected by facility personnel for damages. Should damage be observed, facility personnel will complete the necessary repairs in a timely manner.

- **Describe the drainage ditches that will be constructed in each horizontal terrace to convey flow of surface water.**

Form I includes a detailed calculation which confirms that the final cover benches are sufficiently sized to accept the worst case stormwater runoff for the final cover bench configuration. This calculation includes an estimate of the velocity and flowrate carried by the final cover benches to demonstrate that they will adequately act as channels.

**FORM 14
OPERATION PLAN**

**ATTACHMENT 14-6
NARRATIVE**

**Westmoreland Sanitary Landfill, LLC
Minor Permit Modification Application**

Attachment 14.6: Narrative

Proposed Alternate Daily Covers

Westmoreland Sanitary Landfill (WSLF) is requesting approval for the use of the following materials for ADC:

1. Stabilized Lead Contaminated Soil
2. Soil/Compost Mixture
3. Soil (1 part) and Construction/Demolition Waste Fines (3 parts)
4. Dredged Material
5. Clay Loam Soil
6. Concrete Wall Production Waste
7. Gas Drilling Residuals
8. Industrial Sludge
9. Slag
10. Spray-On Slurry
11. Ash
12. Virgin & Non-Virgin Fuel Contaminated Soil
13. Nonpetroleum Contaminated Soils
14. Construction Demolition Waste
15. Auto Fluff
16. Glass Waste
17. Foundry Sand and Refractory Material
18. Fly Ash with Cement Kiln Dust
19. EnviroCover

1. Stabilized Lead Contaminated Soil

The proposed alternate daily cover is a stabilized lead contaminated soil which has the general properties of topsoil. The material may be created from excavation of lead contaminated soil from facilities such as battery manufactures. At minimum, this material has been approved for use at the Pioneer Crossing Landfill.

25 PA Code §273.232 (b) outlines the performance standards for Daily Cover. These standards are repeated below followed by a discussion of the characteristics of the lead contaminated soil and how the performance standard is achieved.

25 PA Code §273.232 (b)

(b) The composition of the daily cover material shall meet the following performance standards. The daily cover shall:

(1) Prevent vectors, odors, blowing litter and other nuisances.

The stabilized lead contaminated soil material has a density similar to that of soil. The proposed daily cover will provide a continuous uniform cover in a minimum 6" layer over the working face. The alternate cover will prevent vectors, odors, blowing litter and other nuisances by limiting the exposure of waste, similar to other soils.

If the potential exists for the ADC to create dust, WSLF will apply a light spray of water over the ADC from the onsite water truck. The water will be applied from the onsite water truck used for dust management. The proposed ADC will not be used on exterior slopes of the landfill, or in other areas where there is a potential for contact water to migrate outside the disposal area. Stockpiled ADC will be kept within the lined footprint of the landfill near the working face. Furthermore, the ADC will only be placed in areas where waste is expected to be placed the following work day.

(2) Cover solid waste after it is placed without change in its properties and without regard to weather.

The properties of the proposed alternate daily cover material mirror those of soil as described above. When properly applied, the material covers waste fully and has the ability to withstand rain, wind and weather. Its performance in precipitation events is nearly identical to that of soil.

(3) Be capable of allowing loaded vehicles to successfully maneuver over it after placement.

The material does not inhibit vehicles from maneuvering over waste any more than typical daily cover or the waste itself does. The material has properties similar to soil. Precipitation will not affect the driving surface where the material is placed. However, in general, the lead contaminated soil will be applied in areas where no significant vehicular traffic is proposed until additional waste is disposed.

(4) Be capable of controlling fires.

The proposed ADC is lead contaminated soil. This material itself is non-flammable and should be conducive to controlling fires similar to the traditional use of soil as daily cover.

(5) Be consistent with the waste acceptance plan for the facility.

WSLF believes the material is consistent with its waste acceptance plan. WSLF will only accept material that does not exceed the facility's acceptance criteria for lead. The material has also been approved for use at another MSW/RW landfill. The stabilized lead contaminated soil material will not be accepted until an approved Form U is first obtained for the material. **[Rev. 4/25]**

2. Soil/Compost Mixture

The proposed alternate daily cover is a mixture of compost and soil. At minimum, a similar mixture of compost and soil has been approved for use at the Pioneer Crossing Landfill. This application is requesting approval to apply the soil/compost mixture at a ratio of 1:1 consistent with approvals at other landfills.

25 PA Code §273.232 (b) outlines the performance standards for Daily Cover. These standards are repeated below followed by a discussion of the characteristics of the soil/compost mixture and how the performance standard is achieved.

25 PA Code §273.232 (b)

(b) The composition of the daily cover material shall meet the following performance standards. The daily cover shall:

(1) Prevent vectors, odors, blowing litter and other nuisances.

A soil/compost mixture of 1:1 will provide equivalent protection against vectors, odors, blowing litter and other nuisances. If the potential exists for the ADC to create dust, WSLF will apply a light spray of water over the ADC from the onsite water truck. Prior to use of the ADC, WSLF will confirm the material does not exhibit significant odors with the potential to migrate offsite. Excessively odorous material will be disposed rather than utilized as ADC. Furthermore, the ADC will only be placed in areas where waste is anticipated to be placed the following work day.

[Rev. 4/25]

(2) Cover solid waste after it is placed without change in its properties and without regard to weather.

The properties of the proposed alternate daily cover material are similar to those of soil. When properly applied, the material covers waste and has the ability to withstand rain, wind and weather. Its performance in precipitation events is nearly identical to that of soil.

(3) Be capable of allowing loaded vehicles to successfully maneuver over it after placement.

A 1:1 ratio of soil/compost will allow loaded vehicles to successfully maneuver over it. The material has properties similar to soil. Precipitation will not affect the driving surface where the material is placed. However, in general, the ADC will be applied in areas where no significant vehicular traffic is proposed until additional waste is disposed.

(4) Be capable of controlling fires.

The proposed ADC is non-flammable and will be conducive to controlling fires similar to the traditional use of soil as daily cover.

(5) Be consistent with the waste acceptance plan for the facility.

Soil and compost are not wastes and are therefore consistent with the facility's waste acceptance plan. **[Rev. 4/25]**

3. Soil (1 Part) and Construction/Demolition Waste Fines (3 Parts)

The proposed alternate daily cover is construction/demolition waste fines (3 parts) mixed with soil (1 part). At minimum, this material has been approved for use at the Chrin Landfill. The processed construction/demolition waste consists of non-putrescible rubble and debris resulting from construction, remodeling, and demolition.

25 PA Code §273.232 (b) outlines the performance standards for Daily Cover. These standards are repeated below followed by a discussion of the characteristics of the construction/demolition (C&D) waste and how the performance standard is achieved.

25 PA Code §273.232 (b)

(b) The composition of the daily cover material shall meet the following performance standards. The daily cover shall:

(1) Prevent vectors, odors, blowing litter and other nuisances.

C&D waste fines mixed with soil is well suited for cover due to its relatively high density and ability to be tightly compacted. Therefore, once placed, the material will prevent vector intrusion, odors associated with the waste, and blowing litter.

Stockpiled C&D waste fines will be stored within the lined footprint of the landfill. If the potential exists for C&D fines to create dust, WSLF will apply a light spray of water over the ADC from the onsite water truck. Prior to use of the ADC, WSLF will confirm the material does not exhibit significant odors with the potential to migrate offsite. Excessively odorous material will be disposed rather than utilized as ADC.

[Rev. 4/25]

Additionally, the ADC will not be used on exterior slopes of the landfill, or in other areas where there is a potential for contact water to migrate outside the disposal area. Furthermore, the ADC will only be placed in areas where waste is expected to be placed the following work day.

(2) Cover solid waste after it is placed without change in its properties and without regard to weather.

The C&D waste dust and soil mixture is essentially inert. When properly applied, the material covers waste fully and has the ability to withstand rain, wind and weather.

(3) Be capable of allowing loaded vehicles to successfully maneuver over it after placement.

C&D waste/soil mixture is structural in nature and will provide an excellent all-weather surface for vehicle operation.

(4) Be capable of controlling fires.

Only non-combustible materials will be used as ADC. This will be achieved by using loads with low percentages of wood and paper wastes as alternate daily cover.

(5) Be consistent with the waste acceptance plan for the facility.

WSLF is currently approved for disposal of C&D waste at the facility.

4. Dredged Material

The proposed alternate daily cover is dredged material, which is a product of maintenance dredging of sections of channels, basins, reservoirs, and waterways. At minimum, this material has been approved for use at the Tullytown Landfill.

25 PA Code §273.232 (b) outlines the performance standards for Daily Cover. These standards are repeated below followed by a discussion of the characteristics of the dredged material and how the performance standard is achieved.

25 PA Code §273.232 (b)

(b) The composition of the daily cover material shall meet the following performance standards. The daily cover shall:

(1) Prevent vectors, odors, blowing litter and other nuisances.

The dredged material is a soil and will perform similarly to soils used onsite. As a soil, dredged material will prevent vector intrusion, odors associated with the waste, and blowing litter.

Stockpiled ADC will be stored within the lined footprint of the landfill. If the potential exists for the ADC to create dust, WSLF will apply a light spray of water over the ADC from the onsite water truck. Prior to use of the ADC, WSLF will confirm the material does not exhibit significant odors with the potential to migrate offsite. Excessively odorous material will be disposed rather than utilized as ADC.

[Rev. 4/25]

Additionally, the ADC will not be used on exterior slopes of the landfill, or in other areas where there is a potential for contact water to migrate outside the disposal area. Furthermore, the ADC will only be placed in areas where waste is expected to be placed the following work day.

(2) Cover solid waste after it is placed without change in its properties and without regard to weather.

The dredged material is a soil and will perform as the presently used onsite soils would perform. When properly applied, the material covers waste fully and has the ability to withstand rain, wind and weather.

(3) Be capable of allowing loaded vehicles to successfully maneuver over it after placement.

The dredged material is a soil and will perform as the presently used onsite soils would perform. When properly applied, the material will be able to support loaded vehicles.

(4) Be capable of controlling fires.

Due to the physical nature of the dredged material, its soil characteristics, and the conditions under which the material is deposited, it is unlikely the material will contain combustible components. Also, the material will be monitored under the site's soil monitoring requirements to ensure only non-combustible material would be used. Because of its low combustibility, it will also prevent the starting and spreading of fires.

(5) Be consistent with the waste acceptance plan for the facility.

Due to the inert nature of the material, WSLF believes the material is consistent with its waste acceptance plan under Residual Waste Code 200 (sludges). The material has also been approved for use at several other MSW/RW landfills. The dredged material will not be accepted until an approved Form U is first obtained for the material. **[Rev. 4/25]**

5. Clay Loam Soil

The regulations under 25 PA Code §273.232 no longer restrict clay loam from use as daily cover. Therefore, WSLF is proposing to be allowed to use clay loam soil as daily cover. WSLF does not anticipate any issues with this daily cover but if the potential exists for the ADC to create dust, WSLF will apply a light spray of water over the ADC from the onsite water truck. **[Rev. 4/25]**

6. Concrete Wall Production Waste

The solids filtered from concrete wall production wastewater are pressed into cakes that are recycled with crushed concrete. The clumping characteristics of this process result in a waste product suitable for landfill cover. This proposal has been previously approved for use by the PaDEP at the Lycoming County Landfill, at minimum. The proposed use of the material as an ADC is addressed in the following paragraphs.

Production equipment used in manufacturing concrete wall units for building construction is washed down using water mixed with a polymer. The polymer separates the water from any remaining stone and cement particles. This waste residue forms a dense cake that can easily be broken into smaller amounts by hand or mechanical action of vehicles. This waste residue material currently cannot be recycled into the concrete production process and therefore requires landfill disposal.

The material will be applied as a uniform cover material. Use of the material has an advantage in that it is granular similar to soil and thereby performs similar to soil as a cover material. 25 PA Code §273.232 (b) outlines the performance standards for Daily Cover. These standards are repeated below followed by a discussion of the concrete wall production waste characteristics and how the performance standard is achieved.

25 PA Code §273.232 (b)

(b) The composition of the daily cover material shall meet the following performance standards. The daily cover shall:

(1) Prevent vectors, odors, blowing litter and other nuisances.

The proposed ADC has a density of approximately 2,600 pounds per cubic yard, which is greater than soil. The concrete waste composition is made up of aggregate and cement particles with an average particle size less than 2-inches. The resulting gradation of the concrete wall waste material is similar to that of soil. A lift of the proposed ADC will be placed and spread over waste in a manner similar to the use of soil. These characteristics help to control vectors, odors, blowing litter and other nuisances. The material creates a soil-like barrier between the waste and the environment. The product demonstrates good compaction allowing the material to attach to cover the waste and aid in controlling blowing litter. The resultant ADC, when properly applied, results in the suppression of odors similar to soil.

Stockpiled ADC will be stored within the lined footprint of the landfill. If the potential exists for the ADC to create dust, WSLF will apply a light spray of water over the ADC from the onsite water truck. Additionally, the ADC will not be used on exterior slopes of the landfill, or in other areas where there is a potential for contact water to migrate outside the disposal area.

(2) Cover solid waste after it is placed without change in its properties and without regard to weather.

The properties of concrete wall production waste material mirror those of soil as described above. When properly applied, the material covers waste fully and has the ability to withstand rain, wind and weather. Its performance in precipitation events is nearly identical to that of soil.

(3) Be capable of allowing loaded vehicles to successfully maneuver over it after placement.

The concrete waste material does not inhibit vehicles from maneuvering over waste any more than the waste itself does. The material has properties similar to 2RC or modified stone, which are typically suitable as final layers of roadways, driveways and parking lots. Precipitation will not affect the driving surface where the ADC is placed. However, in general, the ADC will be applied in areas where no significant vehicular traffic is proposed until additional waste is disposed.

(4) Be capable of controlling fires.

The proposed ADC of concrete waste material contains aggregate and cement particles, a composition similar to the make-up of soil. This material itself is non-flammable and should be conducive to controlling fires similar to the traditional use of soil as daily cover.

(5) Be consistent with the waste acceptance plan for the facility.

WSLF believes the material is consistent with its waste acceptance plan under Residual Waste Code 400 (Generic Wastes). The concrete waste is also similar to C&D waste, also approved for disposal. The material has also been approved for use at other MSW/RW landfills. The concrete wall production waste material will not be accepted until an approved Form U is first obtained for the material. **[Rev. 4/25]**

Several limitations or conditions are proposed for the use of concrete waste material as an ADC at the facility. These are enumerated below:

- The concrete waste material will only be used so long as it meets the performance standards of 25 PA Code §273.232 (b) which are outlined above.
- Areas where concrete wall production waste material has been used will be broken up by tracking of a bulldozer, a trash compactor or other suitable means prior to placing additional waste in the area. No additional processing or crushing of the material is necessary.
- The ADC will only be used in areas where additional waste will be placed within three days. If waste is not placed within three days, soil or another approved ADC will be applied.

7. Gas Drilling Residuals

Drilling residuals, composed mainly of earthen dirt and aggregate, are the waste product of typical drill-mud circulation systems. Drilling mud, a mixture of water, clay, weighting material and chemicals, is used to lift rock particles from the drill bit to the surface. Most of the drilling mud is then recycled back into the drill. However, the process does generate a certain amount of residuals. These residuals are dewatered and further dried. Delivered materials will be prohibited from containing free liquids. Guidance from the Department requires this material

to contain at least 16.5% solids. WSLF will not place material that has an excessive moisture content that will prevent it from meeting the performance requirements.

Until further documentation is provided to the Department and approved regarding acceptable levels and quantities, drilling residuals utilized as alternate daily cover will not include those which contain TENORM levels that exceed alarm settings.

Due to the soil-like physical components of drilling residuals, the drilling process results in a waste residual product suitable for landfill cover. The drilling residuals will be applied as a uniform cover material similar to traditional soil. Use of drilling residuals has an advantage in that the residuals are granular similar to soil and thereby perform similar to soil as a cover material. The use of drilling residuals as ADC has been previously approved for use by the PaDEP at the Northern Tier Solid Waste Authority's landfills, at minimum.

25 PA Code §273.232 (b) outlines the performance standards for Daily Cover. The drilling residuals will only be used so long as they meet the performance standards of 25 PA Code §273.232 (b). These standards are repeated below followed by a discussion of the drilling residuals characteristics and how the performance standard is achieved.

25 PA Code §273.232 (b)

(b) The composition of the daily cover material shall meet the following performance standards. The daily cover shall:

(1) Prevent vectors, odors, blowing litter and other nuisances.

The composition of drilling residuals is an assortment of aggregate, dirt and clay particles removed from the earth. The particles vary in size but the overall gradation and density of the drilling residual material is similar to that of soil. A lift of this proposed ADC will be placed and spread over waste, creating a barrier between the waste and the environment, in a manner similar to the use of soil. The characteristics of drilling residuals prove the material has the ability to suppress odors and to control vectors, blowing litter and other nuisances at the working face.

Stockpiled ADC will be stored within the lined footprint of the landfill. If the potential exists for the ADC to create dust, WSLF will apply a light spray of water over the ADC from the onsite water truck. Additionally, the ADC will not be used on exterior slopes of the landfill, or in other areas where there is a potential for contact water to migrate outside the disposal area.

(2) Cover solid waste after it is placed without change in its properties and without regard to weather.

When properly applied, the drilling residuals cover waste fully and have the ability to withstand rain, wind, snow and other weather events. Since the properties of drilling residuals are similar to soil, its performance in precipitation events is nearly identical to that of soil.

(3) Be capable of allowing loaded vehicles to successfully maneuver over it after placement.

Drilling residuals do not inhibit vehicles from maneuvering over waste. The material has properties similar to aggregate and dirt, typically suitable for use on landfills. However, in general, drilling residuals will not be applied in main haul road areas.

(4) Be capable of controlling fires.

The proposed ADC of drilling residuals material contains aggregate and dirt particles, a composition largely similar to the make-up of soil. Like soil, this material is non-flammable and should be conducive to controlling fires similar to the traditional use of soil as daily cover.

(5) Be consistent with the waste acceptance plan for the facility.

WSLF believes drilling residuals are consistent with its waste acceptance plan under Residual Waste Code 800 (noncoal mining wastes). The material has also been approved for use at other MSW/RW landfills. Drilling residuals will not be accepted until an approved Form U is first obtained for the material for each individual source. As part of Form U acceptance, each source will be required to be tested pursuant to Form R to verify conformance with regulations. As required, a copy of the laboratory analytical testing results will be forwarded to the DEP upon receipt. **[Rev. 4/25]**

8. Industrial Sludge

WSLF is proposing to use industrial sludge as an Alternative Daily Cover. Industrial sludges proposed for use include paper sludge, paper de-inking sludge, industrial wastewater sludge, and metal processing sludge. Each of these sludges has previously been approved for use at landfill facilities throughout Pennsylvania. The sludges may be used as ADC provided that they meet the facility's "Waste Analysis and Classification Plan", are non-hazardous, and meets the requirements of 25 PA Code 273.232 – Daily Cover.

Any material proposed for use as an ADC at a Pennsylvania municipal solid waste landfill must meet the regulatory requirements of 25 PA Code 273.232 – Daily Cover. A further discussion of the proposed ADCs follows which details how the proposed ADCs will achieve the regulatory performance standards.

25 PA Code §273.232 (b)

(b) The composition of the daily cover material shall meet the following performance standards. The daily cover shall:

(1) Prevent vectors, odors, blowing litter and other nuisances.

Due to the nature of the proposed materials along with limitations indicated herein, the proposed ADC will be capable of completely covering the waste and meet this performance standard, as is typically observed with the soils presently

used. The material will prevent vector intrusion, odors associated with the waste, blowing litter or other nuisances.

Stockpiled ADC will be stored within the lined footprint of the landfill. If the potential exists for the ADC to create dust, WSLF will apply a light spray of water over the ADC from the onsite water truck. Prior to use of the ADC, WSLF will confirm the material does not exhibit significant odors with the potential to migrate offsite. Excessively odorous material will be disposed rather than utilized as ADC. **[Rev. 4/25]**

Additionally, the ADC will not be used on exterior slopes of the landfill, or in other areas where there is a potential for contact water to migrate outside the disposal area. Furthermore, the ADC will only be placed in areas where waste is expected to be placed the following work day.

- (2) Cover solid waste after it is placed without change in its properties and without regard to weather.*

It is expected that sludges will exhibit similar characteristics as soil and/or other ADC's using sludge when exposed to adverse weather.

- (3) Be capable of allowing loaded vehicles to successfully maneuver over it after placement.*

Generally, sludge exhibits similar characteristics as soil. Therefore, when properly applied, the material will be able to support loaded vehicles. However, WSLF does not intend to use the ADC in areas of high traffic.

- (4) Be capable of controlling fires.*

Previous testing of the proposed sludges have shown that there is little or no combustible materials inherent to the material and therefore should be capable of controlling fire within the waste mass. Suspect sources that may contain combustible materials, such as the paper sludge, may be tested prior to use as an ADC.

- (5) Be consistent with the waste acceptance plan for the facility.*

WSLF believes these sludges are consistent with its waste acceptance plan under Residual Waste Code 200 (sludges). Any sources of sludge proposed for use as an ADC will be evaluated pursuant to the facility's "Waste Analysis and Classification Plan". These materials will not be accepted or used for ADC until approval of the material has been secured through the "Waste Analysis and Classification Plan" process including the submission of applicable documentation (e.g. Form U) to the Department. **[Rev. 4/25]**

9. Slag

WSLF is proposing to use slag as an alternate daily cover at the facility. Slag has characteristics similar to soil and aggregate, making the material well-suited for landfill cover. Slag will be applied as a uniform cover material similar to traditional soil. Use of slag has an advantage in that the residuals are granular similar to soil and thereby perform similar to soil as a cover material. The use of slag as ADC has been previously approved for use by the PaDEP at the Northwest and Greentree Landfills, at minimum.

25 PA Code §273.232 (b) outlines the performance standards for Daily Cover. The slag will only be used so long as the meet the performance standards of 25 PA Code §273.232 (b). These standards are repeated below followed by a discussion of the slag characteristics and how the performance standard is achieved.

25 PA Code §273.232 (b)

(b) The composition of the daily cover material shall meet the following performance standards. The daily cover shall:

(1) Prevent vectors, odors, blowing litter and other nuisances.

The composition of slag is similar to soil and aggregate. The particles vary in size but the overall gradation and density of the drilling residual material is similar to that of soil. A lift of this proposed ADC will be placed and spread over waste, creating a barrier between the waste and the environment, in a manner similar to the use of soil. The characteristics of slag prove the material has the ability to suppress odors and to control vectors, blowing litter and other nuisances at the working face.

Stockpiled ADC will be stored within the lined footprint of the landfill. If the potential exists for the ADC to create dust, WSLF will apply a light spray of water over the ADC from the onsite water truck. Additionally, the ADC will not be used on exterior slopes of the landfill, or in other areas where there is a potential for contact water to migrate outside the disposal area. Furthermore, the ADC will only be placed in areas where waste is expected to be placed the following work day.

(2) Cover solid waste after it is placed without change in its properties and without regard to weather.

When properly applied, the slag will cover waste fully and have the ability to withstand rain, wind, snow and other weather events. Since the properties of slag are similar to soil, its performance in precipitation events is nearly identical to that of soil.

(3) Be capable of allowing loaded vehicles to successfully maneuver over it after placement.

Slag does not inhibit vehicles from maneuvering over waste. The material has properties similar to aggregate and soil, typically suitable for use on landfills. However, in general, slag will not be applied in main haul road areas.

(4) Be capable of controlling fires.

The proposed ADC of slag materials contains aggregate- and soil-like particles, a composition largely similar to the make-up of soil. Like soil, this material is non-flammable and should be conducive to controlling fires similar to the traditional use of soil as daily cover.

(5) Be consistent with the waste acceptance plan for the facility.

WSLF believes slags are consistent with its waste acceptance plan under Residual Waste Code 100 (Metallurgical Process Residues). The material has also been approved for use at other MSW/RW landfills. Slags will not be accepted until an approved Form U is first obtained for the material for each individual source. As part of Form U acceptance, each source will be required to be tested pursuant to Form R to verify conformance with regulations. As required, a copy of the laboratory analytical testing results will be forwarded to the DEP upon receipt. **[Rev. 4/25]**

10. Spray-on Slurries/Foam

WSLF is proposing to use spray-on slurries or foam as an alternate daily cover at the facility. Spray-on slurry/foam materials may include Posi-Shell, ConCover180, Rusmar AC-645, Chubb Terra, Atmos, or similar products. The use of spray-on slurries/foam as ADC has been previously approved for use by the PaDEP at the Greentree, at minimum.

25 PA Code §273.232 (b) outlines the performance standards for Daily Cover. The spray-on slurries/foam will only be used so long as the meet the performance standards of 25 PA Code §273.232 (b). These standards are repeated below followed by a discussion of the drilling residuals characteristics and how the performance standard is achieved.

25 PA Code §273.232 (b)

(b) The composition of the daily cover material shall meet the following performance standards. The daily cover shall:

(1) Prevent vectors, odors, blowing litter and other nuisances.

Slurries/foams will be applied over waste in a layer approximately ¼" to ½" thick, creating a uniform barrier between the waste and the environment, in a manner similar to the use of soil. The ADC will be re-applied to any areas of waste that remain exposed after initial application. Use of slurries/foams at other landfills has shown that the material has the ability to suppress odors and to control vectors, blowing litter and other nuisances at the working face.

The ADC will not be used on exterior slopes of the landfill, or in other areas where there is a potential for contact water to migrate outside the disposal area. Furthermore, the ADC will only be placed in areas where waste is expected to be placed the following work day.

(2) Cover solid waste after it is placed without change in its properties and without regard to weather.

When properly applied, the slurries/foams will cover waste fully and have the ability to withstand rain, wind, snow and other weather events. If heavy precipitation is anticipated, a more durable daily cover will be used.

(3) Be capable of allowing loaded vehicles to successfully maneuver over it after placement.

Spray-on slurries/foams will not support vehicles. Therefore, the ADC will only be used in non-traffic areas.

(4) Be capable of controlling fires.

The ADC materials are made of non-flammable materials itself. In addition, they form a highly impermeable layer which inhibits oxygen from the atmosphere from fueling a fire within the waste.

(5) Be consistent with the waste acceptance plan for the facility.

WSLF believes these slurries/foams are consistent with its waste acceptance plan. These materials are not wastes; rather a product specifically designed to cover municipal waste. The slurries/foams are compatible with wastes accepted at the facility. The material has also been approved for use at other MSW/RW landfills.

[Rev. 4/25]

11. Ash

WSLF is proposing to use ash as an Alternative Daily Cover. The equivalency will allow for the use of fly ash and/or bottom ash to be used as an ADC. These fly and/or bottom ashes include ash resulting from the incineration of municipal solid waste, coal, and wood, all of which have been previously approved for use as an ADC by the Department. The ashes may be used as ADC provided that the ash meets the facility's "Waste Analysis and Classification Plan", is non-hazardous, and meets the requirements of 25 PA Code 273.232 – Daily Cover.

Any material proposed for use as an ADC at a Pennsylvania municipal solid waste landfill must meet the regulatory requirements of 25 PA Code 273.232 – Daily Cover. A further discussion of the proposed ADC follows which details how the proposed ADC will achieve the regulatory performance standards.

25 PA Code §273.232 (b)

(b) The composition of the daily cover material shall meet the following performance standards. The daily cover shall:

(1) Prevent vectors, odors, blowing litter and other nuisances.

The material has a sand/silt consistency similar to soils typically used for daily cover. The proposed ADC will be capable of completely covering the waste and

meet this performance standard, as is typically observed with the soils presently used. The material will prevent vector intrusion, odors associated with the waste, blowing litter, or other nuisances.

Stockpiled ADC will be stored within the lined footprint of the landfill. If the potential exists for the ADC to create dust, WSLF will apply a light spray of water over the ADC from the onsite water truck. Additionally, the ADC will not be used on exterior slopes of the landfill, or in other areas where there is a potential for contact water to migrate outside the disposal area. Furthermore, the ADC will only be placed in areas where waste is expected to be placed the following work day.

- (2) Cover solid waste after it is placed without change in its properties and without regard to weather.*

It is expected that ash will exhibit similar characteristics as soil and/or other ADCs when exposed to adverse weather.

- (3) Be capable of allowing loaded vehicles to successfully maneuver over it after placement.*

Generally, ash has a sand/silt consistency similar to soil. Therefore, when properly applied, the material will be able to support loaded vehicles. However, WSLF does not intend to use the ADC in areas of high traffic.

- (4) Be capable of controlling fires.*

Since the ash is a by-product of combustion, combustible materials will have been burned and should not be flammable. Therefore the material should be capable of controlling fire within the waste mass.

- (5) Be consistent with the waste acceptance plan for the facility.*

WSLF believes that ash is consistent with its waste acceptance plan under Residual Waste Code 000 (Combustion Residues). Any sources of ash proposed for use as an ADC will be evaluated pursuant to the facility's "Waste Analysis and Classification Plan". These materials will not be accepted or used for ADC until approval of the material has been secured through the "Waste Analysis and Classification Plan" process including the submission of applicable documentation (e.g. Form U) to the Department. **[Rev. 4/25]**

12. Virgin & Non-Virgin Fuel Contaminated Soil

WSLF is proposing to use virgin fuel contaminated soil including soils contaminated with fuel oil, diesel fuel, and kerosene, and non-virgin petroleum contaminated soil including soils contaminated with hydraulic oil, motor oil, machine cutting oil, transmission oil, transformer oil, or lubricating oils as alternate daily cover. A similar alternative was previously approved by the Department for the Wayne Township Landfill to use the contaminated soils as an alternate

intermediate cover. A specific type or source of contaminated soils is not defined in this application.

If the quantity of virgin fuel contaminated soil resulting from the spill is less than 25 tons and is certified to be fuel oil, diesel fuel, or kerosene, it will be utilized without further testing. Whenever the virgin fuel contaminated soil exceeds 25 tons, it will be tested for total petroleum hydrocarbons and volatile organics and reported on Form FC-1. Non-virgin contaminated soil shall be tested in accordance with Attachment 1 Residual Waste Category 507.

Any material proposed for use as an ADC at a Pennsylvania municipal solid waste landfill must meet the regulatory requirements of 25 PA Code 273.232 – Daily Cover. A further discussion of the proposed ADC follows which details how the proposed ADC will achieve the regulatory performance standards.

25 PA Code §273.232 (b)

(b) The composition of the daily cover material shall meet the following performance standards. The daily cover shall:

(1) Prevent vectors, odors, blowing litter and other nuisances.

The material is a contaminated soil, and will function as well as typical daily cover soil to prevent vector intrusion, odors associated with the waste, blowing litter or other nuisances.

Stockpiled ADC will be stored within the lined footprint of the landfill. If the potential exists for the ADC to create dust, WSLF will apply a light spray of water over the ADC from the onsite water truck. Additionally, the ADC will not be used on exterior slopes of the landfill, or in other areas where there is a potential for contact water to migrate outside the disposal area. Furthermore, the ADC will only be placed in areas where waste is expected to be placed the following work day.

(2) Cover solid waste after it is placed without change in its properties and without regard to weather.

Fuel contaminated soil will function equally as well as other soils used for cover when exposed to adverse weather.

(3) Be capable of allowing loaded vehicles to successfully maneuver over it after placement.

When properly applied, the material will be able to support loaded vehicles as well as other soils.

(4) Be capable of controlling fires.

The soil is non-combustible. When contaminated with virgin fuel, it shall be limited to 12% TPH.

(5) *Be consistent with the waste acceptance plan for the facility.*

WSLF believes that fuel contaminated soils are consistent with its waste acceptance plan under Residual Waste Code 500 Special Handling Wastes). Any sources of the contaminated soils proposed for use as an ADC will be evaluated pursuant to the facility's "Waste Analysis and Classification Plan". These materials will not be accepted or used for ADC until approval of the material has been secured through the "Waste Analysis and Classification Plan" process including the submission of applicable documentation (e.g. Form U) to the Department. **[Rev. 4/25]**

13. Nonpetroleum Contaminated Soil

WSLF is proposing to use nonpetroleum contaminated soil, which consists of waste soils that have become contaminated with materials other than oil or virgin fuels, as alternate daily cover. This alternative was previously approved by the Department for the Greentree Landfill. A specific type or source of contaminated soils is not defined in this application. Only wastes approved under the facility's Form R and Form U programs will be used as ADC.

Any material proposed for use as an ADC at a Pennsylvania municipal solid waste landfill must meet the regulatory requirements of 25 PA Code 273.232 – Daily Cover. A further discussion of the proposed ADC follows which details how the proposed ADC will achieve the regulatory performance standards.

25 PA Code §273.232 (b)

(b) The composition of the daily cover material shall meet the following performance standards. The daily cover shall:

(1) Prevent vectors, odors, blowing litter and other nuisances.

The material is a contaminated soil, and will function as well as typical daily cover soil to prevent vector intrusion, odors associated with the waste, blowing litter or other nuisances.

Stockpiled ADC will be stored within the lined footprint of the landfill. If the potential exists for the ADC to create dust, WSLF will apply a light spray of water over the ADC from the onsite water truck. Additionally, the ADC will not be used on exterior slopes of the landfill, or in other areas where there is a potential for contact water to migrate outside the disposal area. Furthermore, the ADC will only be placed in areas where waste is anticipated to be placed the following work day.

(2) Cover solid waste after it is placed without change in its properties and without regard to weather.

Nonpetroleum contaminated soil will function equally as well as other soils used for cover when exposed to adverse weather.

- (3) *Be capable of allowing loaded vehicles to successfully maneuver over it after placement.*

When properly applied, the material will be able to support loaded vehicles as well as other soils.

- (4) *Be capable of controlling fires.*

Only non-combustible soils will be used as ADC.

- (5) *Be consistent with the waste acceptance plan for the facility.*

WSLF believes that nonpetroleum contaminated soils are consistent with its waste acceptance plan under Residual Waste Code 500 (Special Handling Wastes). Any sources of the contaminated soils proposed for use as an ADC will be evaluated pursuant to the facility's "Waste Analysis and Classification Plan". These materials will not be accepted or used for ADC until approval of the material has been secured through the "Waste Analysis and Classification Plan" process including the submission of applicable documentation (e.g. Form U) to the Department. **[Rev. 4/25]**

14. Construction Demolition Waste

WSLF is proposing to use construction demolition waste (C&D waste), which consists of non-putrescible rubble and debris resulting from construction, remodeling, and demolition, as alternate daily cover. Loads of C&D waste will be evaluated and those with low percentages of paper and wood waste will be used as cover material. In addition, over-sized and unacceptable waste will be removed. This alternative was previously approved by the Department and has been successfully utilized at the Lakeview Landfill.

25 PA Code §273.232 (b) outlines the performance standards for Daily Cover. These standards are repeated below followed by a discussion of the characteristics of the construction/demolition (C&D) waste and how the performance standard is achieved.

25 PA Code §273.232 (b)

(b) The composition of the daily cover material shall meet the following performance standards. The daily cover shall:

- (1) Prevent vectors, odors, blowing litter and other nuisances.*

C&D waste is well suited for cover due to its relatively high density and ability to be tightly compacted. Therefore, once placed, the material will prevent vector intrusion, odors associated with the waste, and blowing litter.

Stockpiled C&D waste will be stored within the lined footprint of the landfill. If the potential exists for C&D fines to create dust, WSLF will apply a light spray of water over the ADC from the onsite water truck. Prior to use of the ADC, WSLF will confirm the material does not exhibit significant odors with the potential to migrate

offsite. Excessively odorous material will be disposed rather than utilized as ADC. **[Rev. 4/25]**

Additionally, the ADC will not be used on exterior slopes of the landfill, or in other areas where there is a potential for contact water to migrate outside the disposal area. Furthermore, the ADC will only be placed in areas where waste is anticipated to be placed the following work day.

(2) Cover solid waste after it is placed without change in its properties and without regard to weather.

The C&D waste is essentially inert. When properly applied, the material covers waste fully and has the ability to withstand rain, wind and weather.

(3) Be capable of allowing loaded vehicles to successfully maneuver over it after placement.

C&D waste is structural in nature and will provide an excellent all-weather surface for vehicle operation.

(4) Be capable of controlling fires.

Only non-combustible materials will be used as ADC. This will be achieved by using loads with low percentages of wood and paper wastes will be used for alternate daily cover.

(5) Be consistent with the waste acceptance plan for the facility.

WSLF is approved to accept C&D waste. Any sources of the C&D waste proposed for use as an ADC will be evaluated pursuant to the facility's "Waste Analysis and Classification Plan". These materials will not be accepted or used for ADC until approval of the material has been secured through the "Waste Analysis and Classification Plan" process including the submission of applicable documentation (e.g. Form U) to the Department. **[Rev. 4/25]**

15. Auto Fluff

The proposed alternate daily cover consists of the use of processed auto fluff material. Auto fluff is a residual waste material from the processing of scrap vehicles and appliances. Batteries, tires, radiators, fluids and gas tanks are removed from the scrap vehicles prior to shredding the vehicle. Once the vehicle is shredded, recyclable ferrous and non-ferrous metals are removed from the auto fluff prior to disposal. Whole crushed white goods are certified that they do not contain small capacitors, which may have contained PCBs and mercury. This alternate daily cover was previously approved by the Department for use at Seneca Landfill, Lake View Landfill, and Mountain View Reclamation.

25 PA Code §273.232 (b) outlines the performance standards for Daily Cover. These standards are repeated below followed by a discussion of the characteristics of the auto fluff and how the performance standard is achieved.

25 PA Code §273.232 (b)

(b) The composition of the daily cover material shall meet the following performance standards. The daily cover shall:

(1) Prevent vectors, odors, blowing litter and other nuisances.

Auto fluff will provide sufficient cover of the underlying waste when placed as a compacted daily cover layer. The alternate cover will prevent vectors, odors, blowing litter and other nuisances by limiting the exposure of waste, similar to other soils.

The auto fluff may have a slight musty-earthly odor which is the result of moisture in the cloth and fabrics of the material. Although the musty odor may be noticeable in the immediate vicinity of the stockpiled material, off-site odor mitigation will not be a problem when applied to the landfill working face. Prior to use of the ADC, WSLF will confirm the material does not exhibit significant odors with the potential to migrate offsite. Excessively odorous material will be disposed rather than utilized as ADC. The alternate daily cover will provide effective coverage of municipal solid waste to prevent the mitigation of odors from the landfill working face. **[Rev. 4/25]**

The weight of the auto fluff is greater than that of plastic/paper waste products which tend to blow away from the working face of the landfill. Therefore, the alternate daily cover will control blowing litter from the landfill working face.

In addition, there will be a reduction in the generation of airborne dust by using auto fluff as an alternative to soil daily cover.

Stockpiled auto fluff will be stored within the lined footprint of the landfill. Additionally, the auto fluff will only be placed in areas where waste is anticipated to be placed the following work day. **[Rev. 4/25]**

(2) Cover solid waste after it is placed without change in its properties and without regard to weather.

Auto fluff material is comprised of non-hazardous inert material that will easily be applied to the landfill working face. Weather conditions will not affect the physical properties of the alternate daily cover material. The fibrous interconnected nature of the auto fluff will remain intact during severe weather conditions and increase in weight by absorbing moisture from precipitation events. The typical moisture content of auto fluff exposed to weather conditions is approximately 13 percent.

(3) Be capable of allowing loaded vehicles to successfully maneuver over it after placement.

Once auto fluff material is delivered to the landfill working face, bulldozers will be utilized to spread and compact the material over in-place municipal solid waste.

Auto fluff will be utilized as daily cover material only on sloped areas of the working face where waste hauling vehicles do not travel to empty their waste loads. Daily cover soil and/or another approved alternate daily cover material will be placed over areas of the landfill working face with minimal slopes. This will permit loaded vehicles to maneuver over the active landfill area to empty waste loads and prevent the auto fluff from being tracked out of the active disposal area by vehicles leaving the working face. However, during wet weather conditions the auto fluff material may be utilized as an absorbent in the vicinity of the working face, followed by recovering with soil or another alternate daily cover material to improve traffic movement.

(4) Be capable of controlling fires.

WSLF does not anticipate potential combustibility problems using the auto fluff material as daily cover. The auto fluff is inert, non-combustible and typically wet from exposure to weather conditions.

The auto fluff will provide effective coverage of the municipal solid waste at the landfill working face to prevent and/or control fires which can result from the disposal of municipal solid waste. The auto fluff can serve as a potential fire break in the event that a landfill fire occurred.

(5) Be consistent with the waste acceptance plan for the facility.

WSLF believes the material is consistent with its waste acceptance plan under Residual Waste Code 400 (General Manufacturing Wastes). The material has also been approved for use at another MSW/RW landfill. The auto fluff material will not be accepted until an approved Form U is first obtained for the material. **[Rev. 4/25]**

16. Glass Waste

The proposed alternate daily cover consists of the use of processed glass waste material. Glass waste includes empty broken bottles, lead cullet, commingled broken glass, glass waste specified under Residual Waste Code 406 – Glass Waste (Cullet) of the Residual Waste Regulations, and off-products of glass recycling process. All glass waste material used for daily cover will be non-hazardous. The material will be evaluated prior to use as daily cover to determine if segregation of unacceptable materials or additional processing is required. This alternate daily cover was previously approved by the Department for use at Seneca Landfill.

25 PA Code §273.232 (b) outlines the performance standards for Daily Cover. These standards are repeated below followed by a discussion of the characteristics of the glass waste and how the performance standard is achieved.

25 PA Code §273.232 (b)

(b) The composition of the daily cover material shall meet the following performance standards. The daily cover shall:

(1) Prevent vectors, odors, blowing litter and other nuisances.

Glass waste will provide sufficient cover of the underlying waste when placed as a compacted daily cover layer. The alternate cover will prevent vectors, odors, blowing litter and other nuisances by limiting the exposure of waste, similar to other soils.

Glass waste material will provide sufficient cover of the underlying waste when placed in a 6-inch minimum compacted daily layer. The glass waste will act very similar to a 6-inch compacted soil layer. The alternate daily cover will provide effective coverage of municipal solid waste to prevent the mitigation of odors from the landfill working face.

The glass waste is an odorless material. The alternative daily cover will provide effective coverage of municipal solid waste to prevent the migration of odors from the landfill working face.

The weight of the processed glass waste is greater than that of waste paper products which tend to blow away from the working face of the landfill. Therefore, the alternative daily cover will control blowing litter from the landfill working face.

In addition, there will be a reduction in the generation of airborne dust by using processed glass waste as an alternative to soil daily cover.

Stockpiled ADC will be stored within the lined footprint of the landfill. If the potential exists for the ADC to create dust, WSLF will apply a light spray of water over the ADC from the onsite water truck. Furthermore, the ADC will only be placed in areas where waste is anticipated to be placed the following work day. **[Rev. 4/25]**

(2) Cover solid waste after it is placed without change in its properties and without regard to weather.

Glass waste is comprised of non-hazardous inert material that will easily be applied to the landfill working face. Weather conditions will have no affect to the physical properties of the alternative daily cover material.

(3) Be capable of allowing loaded vehicles to successfully maneuver over it after placement.

Once glass waste material is delivered to the landfill working face, bulldozers will be utilized to spread and compact the daily cover material over in-place municipal solid waste. Glass waste will be utilized as daily cover material only on sloped areas of the landfill working face where waste hauling vehicles do not travel to empty their waste loads. Daily cover soil and/or another approved alternate daily cover material will be placed over area of the landfill working face with minimal slopes. This will

permit loaded vehicles to maneuver over the active landfill area to empty waste loads.

(4) Be capable of controlling fires.

WSLF does not anticipate potential combustibility problems by using processed glass waste material as daily cover. The glass waste is inert and non-combustible.

The glass waste will provide effective coverage of the municipal solid waste at the landfill working face to prevent and/or control fires which can result from the disposal of municipal solid waste. The glass waste can serve as a potential fire break in the event that a landfill fire occurs.

(5) Be consistent with the waste acceptance plan for the facility.

The use of glass waste as an alternative daily cover material will be consistent with the facility's Waste Analysis and Classification Plan (Form R) for the acceptance of waste classified under Waste Code 406 – Glass Waste (Cullet).

17. Foundry Sand and Refractory Material

The proposed alternate daily cover consists of the use of Foundry Sand and Refractory Material. This alternate daily cover was previously approved by the Department for use at Seneca Landfill and Lake View Landfill. The proposed daily cover material will meet the following gradation specification requirements:

<u>Sieve Size</u>	<u>Total Percent Passing</u>
Six Inch	100
No. 10 (2mm)	40-100

Foundry sand is a by-product of the casting industry and typically consists of molding sand and baghouse dust. Molding sand is the residual sand remaining after casting operations. Molds are prepared using a mixture of sand, clay, and water. Molten metal is poured into the molds, cooled, and then shaken out of the sand. In some cases, baked sand cores are also placed into the molds. The mold and core sands are recycled, but some is discarded as a process residual waste. The exhaust from the shakeout operation is passed through dust collectors and the resulting dust is collected in hoppers.

The refractory materials are used for heat insulation metal production, and are discarded when cracked or broken. The composite blend of foundry sand materials, if co-mingled, is approximately 55% sand, 35% baghouse dust.

All foundry sand and refractory material used as daily cover shall meet performance and design requirements outlined below. **[Rev. 4/25]** 25 PA Code §273.232 (b) outlines the performance standards for Daily Cover. These standards are repeated below followed by a discussion of the characteristics of the foundry sand and refractory materials and how the performance standard is achieved.

25 PA Code §273.232 (b)

(b) The composition of the daily cover material shall meet the following performance standards. The daily cover shall

(1) Prevent vectors, odors, blowing litter and other nuisances.

Foundry sand and refractory materials are similar to those of soils approved for use, so when placed in six (6) inch compacted layers as daily cover, will prevent vectors such as rats, flies, and other vermin from breeding or harboring in the refuse. Likewise, odors, blowing litter, and other nuisances will be prevented due to the similarity between the foundry sand and refractory material and the approved effective methods currently approved for use.

Stockpiled ADC will be stored within the lined footprint of the landfill. If the potential exists for the ADC to create dust, WSLF will apply a light spray of water over the ADC from the onsite water truck. Furthermore, the ADC will only be placed in areas where waste is anticipated to be placed the following work day. **[Rev. 4/25]**

(2) Cover solid waste after it is placed without change in its properties and without regard to weather.

Foundry sand and refractory material are essentially inert and similar to those soils approved for use, so it will act as an effective solid waste cover without change in its properties and without regard to weather.

(3) Be capable of allowing loaded vehicles to successfully maneuver over it after placement.

As stated previously, foundry sand and refractory material are similar to soils approved for used as daily cover. Equipment and vehicular movement on the landfill will not be inhibited.

(4) Be capable of controlling fires.

There are no combustible materials found in these materials.

(5) Be consistent with the waste acceptance plan for the facility.

WSLF believes the material is consistent with its waste acceptance plan under Residual Waste Code 100 (Metallurgical Process Residues). The material has also been approved for use at other MSW/RW landfills. The material will not be accepted until an approved Form U is first obtained for the material. **[Rev. 4/25]**

18. Fly Ash with Cement Kiln Dust

The proposed alternate daily cover consists of the use of Fly Ash with Cement Kiln Dust. This alternate daily cover was previously approved by the Department for use at Seneca Landfill and G.R.O.W.S. Landfill. The proposed daily cover material will meet the following gradation specification requirements:

<u>Sieve Size</u>	<u>Total Percent Passing</u>
Six Inch	100
No. 10 (2mm)	40-100

The proposed alternate is primarily fly ash from coal burning at electrical generation plants mixed with kiln dust. The mixture is a nominal 15% kiln dust and 85% fly ash, with a moisture content of 6-15%. The fly ash will be conditioned at the generation site. The kiln dust is produced in the process of making Portland Cement. The conditioned mixture will be applied to the working face using existing methods of application with onsite operations equipment. The conditioned coal fly ash proposed for use are any process fly ash products from public coal burning power generation stations.

25 PA Code §273.232 (b) outlines the performance standards for Daily Cover. These standards are repeated below followed by a discussion of the characteristics of the fly ash with cement kiln dust and how the performance standard is achieved.

25 PA Code §273.232 (b)

(b) The composition of the daily cover material shall meet the following performance standards. The daily cover shall:

(1) Prevent vectors, odors, blowing litter and other nuisances.

Conditioned fly ash will be applied to the working face of the landfill in a six inch layer as daily cover. This six inch layer will be able to prevent vectors, such as rodents, flies, mosquitoes, rats and other vermin from breeding or harboring in the refuse. The pH of the mixture will, also, deter the vectors from the refuse.

The six inch layer of conditioned fly ash will be dense enough to prevent the emission of odors from the landfill. The mixture itself is odorless.

The weight of the mixture when applied in a six inch layer will be sufficient to control the blowing of litter on the working face.

Stockpiled ADC will be stored within the lined footprint of the landfill. If the potential exists for the ADC to create dust, WSLF will apply a light spray of water over the ADC from the onsite water truck. Furthermore, the ADC will only be placed in areas where waste is anticipated to be placed the following work day. **[Rev. 4/25]**

(2) Cover solid waste after it is placed without change in its properties and without regard to weather.

The conditioned fly ash contains non-plastic, silt-sized particles. The spherical, non-plastic nature of the fly ash will not change its properties after it is placed and the changes in weather will not affect the properties.

(3) Be capable of allowing loaded vehicles to successfully maneuver over it after placement.

This mixture has been successfully used as daily cover at Edgeboro Disposal Landfill in Middlesex County, New Jersey, and is approved at a number of facilities in Pennsylvania. The mixture acts similar to soil in the fact that when wet it becomes "muddy" but when it dries out it takes on its original consistency. Two New Jersey landfills have been using the mixture as daily cover with no apparent vehicular problems (Edgeboro Disposal and Kinsley Landfill).

Since these soils will have a USDA textural classification as provided in PaDEP Regulation 273.232, equipment and vehicular movement on the landfill will not be inhibited.

(4) Be capable of controlling fires.

Fly ash is non-combustible.

(5) Be consistent with the waste acceptance plan for the facility.

WSLF believes the material is consistent with its waste acceptance plan under Residual Waste Code 000 (Combustion Residues). The material has also been approved for use at other MSW/RW landfills. The material will not be accepted until an approved Form U is first obtained for the material. **[Rev. 4/25]**

19. EnviroCover

The proposed alternate daily cover consists of the use of EnviroCover. This alternate daily cover was previously approved by the Department for use at Seneca Landfill. EnviroCover is a non-reusable polyethylene film, very similar to a tarp, developed specifically to meet the requirements for alternate daily cover (ADC). The material is deployed using an applicator by the manufacturer for placement of the EnviroCover. As the material is deployed, ballast material is simultaneously discharged at a controlled rate from the applicator to securely anchor the EnviroCover to the working face. Ballast is discharged at an approximate rate of 1 cubic yard of ballast per 1,000 sq. ft. of cover material.

The polyethylene is formulated with an additive to allow the material to degrade very quickly (from a matter of days up to 4 weeks depending on the amount of additive used). Since the material degrades from UV exposure, is mechanically destroyed by subsequent placement of waste, and further deteriorates by stress conditions within the landfill, there is no need to remove the material before placement of subsequent layers of waste.

25 PA Code §273.232 (b) outlines the performance standards for Daily Cover. These standards are repeated below followed by a discussion of the characteristics of the EnviroCover and how the performance standard is achieved.

25 PA Code §273.232 (b)

(b) The composition of the daily cover material shall meet the following performance standards. The daily cover shall:

- (1) Prevent vectors, odors, blowing litter and other nuisances.

Based on information from the manufacturer, EnviroCover is deployed in 10' to 18' wide panels, overlapped approximately 6" to 18", and securely anchored by ballast material. This provides a continuous impermeable barrier over the waste, while a compression type seal is created through the weight of the ballast. In addition, the material has very high tear and puncture resistance to prevent tears as it is placed over exposed waste. The barrier isolates the waste from vectors, rodents, and other nuisances, while also preventing the blowing of litter.

In addition, considering that the EnviroCover is virtually impermeable with regards to water vapor transmission (6×10^{-17} m/s) in comparison to typical alternative daily cover soils (1×10^{-8} m/s), the proposed ADC is far more effective in controlling odors compared to typical daily cover soils.

Therefore, EnviroCover will prevent vectors, blowing litter and other nuisances while minimizing odors as well as, if not better than, daily cover soils.

Stockpiled ADC will be stored within the lined footprint of the landfill. Furthermore, the ADC will only be placed in areas where waste is anticipated to be placed the following work day. **[Rev. 4/25]**

- (2) *Cover solid waste after it is placed without change in its properties and without regard to weather.*

As mentioned above, if installed correctly, the EnviroCover will provide a continuous cover over the working face. Polyethylene has proven compatible with the waste types accepted at WSLF, and is currently used in the landfill liner system, so there is no anticipated change in its properties. Although this material is designed to degrade quickly, significant degradation will not occur until a subsequent layer of waste is placed over the EnviroCover.

The EnviroCover can be installed in all manners of precipitation, and, based on manufacturer literature, can be installed in high winds. To minimize the potential for wind uplift, panels will be shingled in the direction of the prevailing wind, and additional ballast material can be used as necessary. The material will not be installed during periods of extreme winds.

- (3) *Be capable of allowing loaded vehicles to successfully maneuver over it after placement.*

The proposed ADC will not allow loaded vehicles to maneuver over the waste without impacting its properties. However, the ADC will be applied in areas where vehicular traffic is not expected until the following morning. Since the working face is confined to a relatively small area, this will not impede the access of emergency

response equipment to the facility. WSLF notes that there are numerous other approved ADCs with similar limitations. In this respect, the material is no different from other ADC's approved at WSLF and elsewhere in Pennsylvania, including various foams, tarps, liners, and geotextiles, which also restrict loaded vehicular access.

(4) Be capable of controlling fires.

EnviroCover controls landfill fires by providing a substantially improved barrier to prevent gas and air migration. It reduces the mixing of atmospheric oxygen with landfill gases, and provides considerable control over the spread of landfill fires.

Additionally, it should be noted that this material will provide equivalent fire protection as other approved geosynthetics, such as geotextiles and geomembranes.

(5) Be consistent with the waste acceptance plan for the facility.

The material is comprised of high density polyethylene (HDPE). HDPE is an inert material and is compatible with other wastes accepted at the facility. WSLF's liner system and cap system are comprised of HDPE materials. Therefore, the proposed ADC is consistent with the waste acceptance plan for the facility.



FORM A

APPLICATION FOR MUNICIPAL OR RESIDUAL WASTE PERMIT

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided herein. Replacement/substitution of or attachment to this form is prohibited. Improperly completed forms may be rejected by the Department, may be considered to be violations of the Department's Rules and Regulations, and may result in assessment of fines and penalties.

SECTION A. APPLICANT IDENTIFIER (Check one of the boxes and identify both)

<input checked="" type="checkbox"/> Owner	Name: Westmoreland Sanitary Landfill, LLC	Phone #: (412) 426-5432
	Address: 111 Conner Lane, Belle Vernon, PA 15012-4519	Email:
<input checked="" type="checkbox"/> Operator	Name: Westmoreland Sanitary Landfill, LLC	Phone #: (412) 426-5432
	Address: 111 Conner Lane, Belle Vernon, PA 15012-4519	Email: nstork@nobleenviro.com

SECTION B. TYPE OF FACILITY

Municipal Waste Landfill.....	<input checked="" type="checkbox"/>	Residual Waste Landfill	<input type="checkbox"/>
Construction/Demolition Waste Landfill	<input type="checkbox"/>	Class I	<input type="checkbox"/>
Municipal Waste Composting Facility	<input type="checkbox"/>	Class II	<input type="checkbox"/>
Municipal Waste Incinerator or Resource Recovery Facility...	<input type="checkbox"/>	Class III	<input type="checkbox"/>
Municipal Waste Demonstration Facility	<input type="checkbox"/>	Residual Waste Disposal Impoundment	
Municipal Waste Transfer Facility	<input type="checkbox"/>	Class I	<input type="checkbox"/>
Municipal Waste Processing Facility	<input type="checkbox"/>	Class II	<input type="checkbox"/>
Other, Specify	<input type="checkbox"/>	Residual Waste Composting Facility	<input type="checkbox"/>
		Residual Waste Demonstration Facility	<input type="checkbox"/>
		Residual Waste Transfer Facility	<input type="checkbox"/>
		Residual Waste Incinerator or Other Processing Facility	<input type="checkbox"/>
		Residual Waste Agricultural Utilization	<input type="checkbox"/>
		Residual Waste Land Reclamation	<input type="checkbox"/>
		Oil and Gas Wastewater Storage Impoundment	<input type="checkbox"/>
		Other, Specify	<input type="checkbox"/>

SECTION C. MAP LOCATION

U.S.G.S. Map Location of Facility (attach the map and identify location on the USGS map)

7.5" Map Name Donora, Pennsylvania Quadrangle

Center of Facility:

Latitude 40 ° 09 ' 01 " Longitude -79 ° 51 ' 15 "

SECTION D. GENERAL INFORMATION

Number of New Acres Proposed for Permit (Issued)	Number of Acres Proposed for Permit (New)
<u>0 • 0</u>	<u>0 • 0</u>
Total Acres of the Property	
<u>292 • 5</u>	
Number of Previously Permitted Acres	Current Permit ID Number(s) <u>100277</u>
<u>270 • 0</u>	

SECTION E. AFFIDAVITCOMMONWEALTH/STATE OF Pennsylvania

ss: _____

COUNTY OF WashingtonSworn and subscribed to before me this 9th dayof April 20 25

Alice M. Rump
 NOTARY PUBLIC

COMMONWEALTH OF PENNSYLVANIA - NOTARY SEAL
 Alice M Rump, NOTARY PUBLIC
 Washington County
 My Commission Expires 07/23/2025
 Commission Number 1215212

My Commission Expires

July 23, 2025Print or type name to be Signed: Michael E. ZucattiDate April 9, 2025Date: April 9, 2025

I, *MEZ* do hereby certify pursuant to the penalties of 18 Pa. C.S.A.
 (Signature of Applicant)

Section 4904 to the best of my knowledge, information, and belief that the information contained in this application is true and correct and is in conformance with 25 PA. Code Chapters 271 or 287, whichever is applicable, of the rules and regulations of the Department of Environmental Protection.

SECTION F. APPLICATION FEE**A. Municipal Facilities****i. Application for new permit, or repermitting. (ref. 271.128)**

- | | | | |
|--------------------------|----------|---|--|
| <input type="checkbox"/> | \$18,500 | - | Municipal Waste Landfill |
| <input type="checkbox"/> | \$19,250 | - | Construction/Demolition Waste Landfill |
| <input type="checkbox"/> | \$4,400 | - | Transfer Facility |
| <input type="checkbox"/> | \$1,900 | - | Incinerator or Resource Recovery Facility |
| <input type="checkbox"/> | \$4,000 | - | Other Municipal Waste Processing Facility, including Composting Facility |
| <input type="checkbox"/> | \$17,300 | - | Demonstration Facility |

ii. Application for a major permit modification.

- | | | | |
|--------------------------|---------|---|--|
| <input type="checkbox"/> | \$300 | - | Addition of types of waste not approved in the permit |
| <input type="checkbox"/> | \$7,800 | - | Municipal Waste Landfill and Construction/Demolition Waste Landfill |
| <input type="checkbox"/> | \$700 | - | Transfer Facility |
| <input type="checkbox"/> | \$1,500 | - | Incinerator or Resource Recovery Facility |
| <input type="checkbox"/> | \$700 | - | Other Municipal Waste Processing Facility, including Composting Facility |
| <input type="checkbox"/> | \$6,700 | - | Demonstration Facility |

iii. ☐ \$300 - Permit Reissuance**iv. ☐ \$300 - Permit Renewal****v. ☒ \$300 - Minor Permit Modification**

SECTION F. APPLICATION FEE (Continued)**A. Residual Facilities****i. Application for new permit, or repermitting. (ref. 287.141)**

- ☐ \$25,900 – Residual Waste Landfill
- ☐ \$8,500 – Residual Waste Disposal Impoundment
- ☐ \$5,200 – Residual Waste Transfer Facility
- ☐ \$8,300 – Residual Waste Noncaptive Incinerator
- ☐ \$2,200 – Residual Waste Captive Incinerator
- ☐ \$5,200 – Other Waste Processing Facility, including Composting Facility
- ☐ \$8,500 – Residual Waste Demonstration Facility
- ☐ \$5,100 – Residual Waste Land Reclamation
- ☐ \$5,100 – Residual Waste Agricultural Utilization
- ☐ \$8,500 – Oil and Gas Wastewater Storage Impoundment

ii. Application for a major permit modification.

- ☐ \$600 – Addition of types of waste not approved in the permit
- ☐ \$7,800 – Residual Waste Landfill
- ☐ \$600 – Residual Waste Agricultural Utilization
- ☐ \$1,900 – Residual Waste Land Reclamation
- ☐ \$1,500 – Residual Waste Incinerator Facility
- ☐ \$700 – Residual Waste Transfer or Other Processing Facility, including Composting Facility
- ☐ \$5,800 – Residual Waste Demonstration Facility
- ☐ \$4,600 – Residual Waste Disposal Impoundment
- ☐ \$4,600 – Oil and Gas Wastewater Storage Impoundment

iii. ☐ \$400 – Residual Waste Permit Reissuance**iv. ☐ \$300 – Residual Waste Permit Renewal****v. ☐ \$300 – Residual Waste Minor Permit Modification****SECTION G. PUBLIC NOTICE - SECTION 271.141 (MUNICIPAL), 287.151 (RESIDUAL)**

For a new permit, major permit modification, permit renewal, permit reissuance, and submission of a closure plan, attach the proof of public notice for each of the following:

1. Newspaper - Attach the name of the newspaper, circulation location, copies of the notice, and dates of publication.
2. Municipality - Attach copies of the written notices sent to the host township and host county, and copies of the returned certified mail signature cards.
3. Contiguous Landowners - Attach copies of the written notice(s) sent to each landowner and copies of the returned certified mail signature cards.

Not Applicable

SECTION H. MUNICIPAL WASTE MANAGEMENT PLANS AND PERMITS

For a new permit, major permit modification, permit renewal, or permit reissuance of a municipal waste landfill or resource recovery facility permit, is the proposed facility located in a county that has an approved municipal waste management plan that complies with Section 513 of Act 101? Yes ☐ No ☐

If the above answer is "yes", the applicant must complete form 46 - Relationship between Municipal Waste Management Plans and Permits.

Not Applicable

NOTE: For each permit application, please submit the original (mark as such) and additional copies as requested by the Department's regional office.



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
April 2025

DEP USE ONLY

Date Received

FORM B PROFESSIONAL CERTIFICATION

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form B, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: Section 271.122, 287.122

SECTION A. SITE IDENTIFIER

Applicant/permittee: Westmoreland Sanitary Landfill, LLC

Site Name: Westmoreland Sanitary Landfill

Facility ID (as issued by DEP): 100277

SECTION B. REGISTERED PROFESSIONAL ENGINEER

I, Patrick Wozinski, P.E.

(Engineer's Name – Print or Type)

being a Registered Professional Engineer in accordance with the Pennsylvania Professional Engineer's Registration Law, do hereby certify to the best of my knowledge, information, and belief that the information contained in the accompanying application, plans, specifications, and reports has been prepared in accordance with accepted practice of engineering, are true and correct, and are in accordance with the Rules and Regulations of the Department of Environmental Protection. I also certify that those individuals indicated in the following paragraphs prepared this application under my supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

Signature  Date April 11, 2025

License Number PE 078243 Expiration Date September 30, 2025

Address BAI Group
366 Walker Drive; Suite 300
State College, PA 16801

Telephone No. (814) 238-2060



SECTION C. SOIL SCIENTIST PROVIDING SOILS INFORMATION

I, N/A _____ do hereby certify
 (Soil Scientists Name – Print or Type)

to the best of my knowledge, information, and belief that the soils information contained in this application has been prepared in accordance with accepted practices of soil science and in accordance with the Rules and Regulations of the Department of Environmental Protection. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

Signature _____ Date _____

Address _____

Telephone No. () _____

SECTION D. REGISTERED PROFESSIONAL GEOLOGIST

I, N/A _____ being a
 (Hydrogeologist's Name – Print or Type)

Registered Professional Geologist in accordance with the Pennsylvania Professional Geologists Registration Law, do hereby certify to the best of my knowledge, information, and belief that the hydrogeology information contained in this application has been prepared in accordance with the accepted practices of hydrogeology and in accordance with the Rules and Regulations of the Department of Environmental Protection. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

Signature _____ Date _____

License Number _____ Expiration Date _____

Address _____

Professional
Seal

Telephone No. () _____



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
April 2025

DEP USE ONLY

Date Received

FORM B1 APPLICATION FORM CERTIFICATION

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form B1, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

SECTION A. SITE IDENTIFIER

Applicant/permittee: Westmoreland Sanitary Landfill, LLC

Site Name: Westmoreland Sanitary Landfill

Facility ID (as issued by DEP): 100277

SECTION B. CERTIFICATION

Professional Engineer

I, Patrick Wozinski, P.E.

(Engineer's Name -Print or Type)

being a Registered Professional Engineer in accordance with the Pennsylvania Professional Engineer's Registration Law, do hereby certify that the forms used in the accompanying application have been reproduced under my supervision and have the same exact content and the same format as the forms prepared by the Department. I am aware that there are significant penalties for altering the content of the Department's forms, including the possibility of fines and imprisonment.

Signature

Date April 11, 2025

License Number PE-078243

Expiration Date September 30, 2025

Address BAI Group

366 Walker Drive; Suite 300

State College, PA 16801

Telephone No. (814) 238-2060

