

**Bethlehem Landfill Company
Northern Realignment Application
Nuisance Minimization and Control Plan – Summary**

EXHIBIT

BLC 64

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Bethlehem Landfill Company ("BLC") has submitted an application for the Northern Realignment of the Bethlehem Landfill. Incorporated within that application, BLC has provided numerous measures to minimize and control potential nuisances associated with the operation of a solid waste disposal facility. These measures are contained in various portions of the application and comply with the Department's municipal waste management regulations, including 25 Pa. Code §273.136. For convenience, the Table below summarizes the monitoring aspects of these measures. For each measure, the Table identifies the principal monitoring program to verify that the measure is implemented, the record keeping system used to document the effectiveness of the measure, and a reference(s) to the application documents where additional detail on the measure is available. This summary may not be exhaustive of all design elements and operational procedures contained within the application that relate to nuisance minimization or control, and this Table is not intended to limit BLC's ability to utilize other measures if nuisance conditions arise.

Potential Nuisance	Minimization/Mitigation Measure	Monitoring Program ¹	Record Keeping/Reporting ²	Application Document References
Odors ³	Cover (daily, intermediate and final)	Weekly inspection (at least)	Daily operations records	Form 14, Item L-2 (existing); Form 14, Item C (existing); Form 14, Items R, S, T and U (existing); Form F, Item C.7 (existing), DEP4/2017 EAP Comments – 100'x100' and Odor Neutralizers ⁶ , EOMP ⁹
	Waste Acceptance Plan	Initial approval followed by review of each incoming load	Initial approval and annual confirmation; daily logs for each load; Daily ⁷ , quarterly and annual operations records	Form 14, Attachment 14-3 (approved Form R for site)(existing); Form 14, Items G-2 and H-3 (existing); Form 14, Item C (existing)
	Active Gas Collection and Flare System	Gas Monitoring and Control Plan	Continuous (flare; weather); Daily ⁷ (perimeter checks); Monthly (well field balance); Quarterly (surface monitoring)	Form K, Attachment K-2 (Landfill Gas Monitoring and Control Plan) (existing); Form G(B); Title V (existing); Form 54 (existing), EOMP ⁹
	Final Capping	Established Final Capping Schedule	Annual operations records	Plan Sheets LF-26 to LF-28; Form 14: Items T and U (existing); Form 28, Paragraph 2.1 (existing); IESI Response to DEP 3/27/2002 EAP Comments, Harms – Air Q./Odors/Nuisance (existing)
Odor	Odor Patrol	Daily (operational days)	Daily operations records ⁷	EAP Response
	Leachate Seep Control	Weekly inspection (at least)	Daily operations records ⁷	Form 14, Items R and S (existing)
	Cap/Gas System Removal	Weekly inspection (at least)	Daily operations records ⁷	Form K Narrative Response

Potential Nuisance	Minimization/Mitigation Measure	Monitoring Program ¹	Record Keeping/Reporting ²	Application Document References
Dust ³	Access Roads – Construction	Inspection during and end of construction, then periodic	Certification of Construction	Plan Sheet LF-61 and LF-62; Form 14, Items J, J-1 and J-4 (existing); Form 14, Item L-4 (existing)
	Perimeter Checks	Daily inspection	Daily operations records ⁷	Title V (existing)
	Access Roads – Maintenance (sweeper vehicle/water truck)	Daily inspection	Continuous (weather); Daily operations records ⁷	Form 14, Item D-4 (existing); Form 14, Item L-4 (existing); Form G(A); Form 54 (existing)
	Dust Monitors (if needed)	Periodic inspection	Daily operations records	Form 14, Item L-4 (existing); Form G(A)
	Vegetate disturbed areas	Daily inspection	Daily operations records	Form H (existing); Form 14, Item L-4 (existing)
	Waste Acceptance Plan	Initial approval followed by review of each incoming load	Initial approval and annual confirmation; daily logs for each load; Daily, quarterly and annual operations records	Form 14, Attachment 14-3 (approved Form R for site)(existing); Form 14, Items G-2 and H-3 (existing); Form 14, Item C (existing)
	No Open Burning	Daily inspection	Daily operations records ⁷	Form 14, Items L-2 and Item O (existing)
Mud ³	Access Roads – Construction	Inspection during and end of construction, then periodic	Certification of Construction	Plan Sheet LF-61 and LF-62; Form 14, Items J, J-1 and J-4 (existing); Form 14, Item L-4 (existing)
	Access Roads – Maintenance (sweeper vehicle/water truck)	Daily inspection	Daily operations records ⁷	Form 14, Item D-4 (existing); Form 14, Item L-4 (existing); Form G(A)
Vectors ³	Cover (daily, intermediate and final)	Weekly inspection (at least)	Daily operations records	Form 14, Item L-2 (existing); Form 14, Item C (existing); Form 14, Items R, S, T and U (existing); Form F, Item C.7
	Licensed Extermination Services	Inspections by Landfill Manager and observations by landfill personnel	Daily operations records	Form 14, Item L-1 (existing)
Litter ³	Tarps and covers on vehicles	Inspection of each incoming load and random inspections	Truck Inspection Form	Exhibit 12 to IESI Response to DEP 3/27/2002 EAP Review (Transportation Compliance Plan ⁴) (existing)
	Working Face Management – small size and water spray	Inspection during waste disposal	Continuous (weather); Daily operations records ⁷	Form 14, Item M and Item P-4 (existing); Form 54 (existing)

Potential Nuisance	Minimization/Mitigation Measure	Monitoring Program ¹	Record Keeping/Reporting ²	Application Document References
	Waste Trailer Tipper ⁸	Inspection during waste disposal	Daily operations records	Form 14 – Waste Trailer Tipper 2/18/14 (existing)
	Prompt placement of daily cover	Weekly inspection (at least)	Daily operations records	Form 14, Item L-2 (existing); Form 14, Items C and M/ Form 14, Item R (existing); Form F, Item C.7
	Litter fencing	Daily inspection	Daily operations records ⁷	Form 14, Item M (existing)
	Litter patrol	Weekly inspection, and as needed	Daily operations records ⁷	Form 14, Item M (existing)
Noise ³	Equipment fitted with proper mufflers	Daily observation	Daily operations records ⁷	Form 14, Item L-3 (existing)
	Onsite speed limit at 10 m.p.h.	Daily observation	Daily operations records ⁷	Form 14, Item L-3 (existing)
	Backup Motion Sensor system	Daily observation	Daily operations records ⁷	IESI Response to DEP 3.27.2002 EAP Comments, Harms – Noise, and Exhibit 17 (existing)
	Hours of Operation	Daily observation	Daily operations records ⁷	Form 14, Item I (existing)
Traffic ^{3,5}	Weight restriction compliance	Weigh each incoming load and random inspections	Scalehouse records and Truck Inspection Form	Exhibit 12 to IESI Response to DEP 3/27/2002 EAP Review (Transportation Compliance Plan ⁴) (existing)
	Vehicle signage compliance	Inspection of each incoming load and random inspections	Truck Inspection Form	Exhibit 12 to IESI Response to DEP 3/27/2002 EAP Review (Transportation Compliance Plan ⁴) (existing)
	Fire extinguisher compliance	Random inspections	Truck Inspection Form	Exhibit 12 to IESI Response to DEP 3/27/2002 EAP Review (Transportation Compliance Plan ⁴) (existing)
	Safety equipment compliance	Random inspections	Truck Inspection Form	Exhibit 12 to IESI Response to DEP 3/27/2002 EAP Review (Transportation Compliance Plan ⁴) (existing)
	Recordkeeping compliance	Random inspections	Truck Inspection Form	Exhibit 12 to IESI Response to DEP 3/27/2002 EAP Review (Transportation Compliance Plan ⁴) (existing)
	Route compliance ⁵	Routine observation and monthly landfill advisory committee	Daily operations records	Exhibit 12 to IESI Response to DEP 3/27/2002 EAP Review (Transportation Compliance Plan ⁴) (existing)11/2017
	Traffic flow ⁵	Routine observation	Traffic Impact Study	Form D, Attachment 10, Exhibit 1

Potential Nuisance	Minimization/Mitigation Measure	Monitoring Program ¹	Record Keeping/Reporting ²	Application Document References
Runoff	Soil Erosion and Sediment Control Plan	Inspections after each rain event, daily and weekly (including landfill benches, pipes and perimeter channels)	Daily operations records ⁷	Form I, Table I-2, Post Rain Event Inspection Form
	Access Roads – Construction	Inspection during and end of construction, then periodic	Certification of Construction	Form I, Section D; Plan Sheet LF-61 and LF-62; Form 14, Item D-7 (existing); Form 14, Items J-1, 3 and 5 (existing); Form 14, Item L-4 (existing)
	Leachate Seep Control	Weekly inspection	Daily operations records	Form 14, items R and S (existing); IESI Response to DEP 3/27/02 EAP Comments, harms – Air Quality/Odors/Nuisance (existing)
Leachate	Liner System	Construction QA/QC and certification	Certification of Construction	Form 24, Attachment 24-2 (QA/AC Plan); Form 14, Items C, C-4 (existing)
	Leachate Management System	Continuous monitor via electronic sensors, and routine observation	Daily operations records	Form 25, Attachment 25-1; Form 14, Items C, C-4 (existing)
	Groundwater Monitoring System	Quarterly and annual sampling	Quarterly and Annual Operation Records	Form 18 (existing); Form 7; Form 14, Item C (existing)
	Groundwater Abatement System	Quarterly and annual sampling	Quarterly and Annual Operation Records	Form 18 (existing); Form 7; Form 14, Item C (existing)

1. – As site conditions warrant, but at least annually, BLC will review the compliance history of the facility (during preparation of the Annual Operations Report) and evaluate whether adjustments to existing operations are required to address nuisance conditions. Pursuant to such review, if an increase in nuisance conditions is identified, BLC will evaluate the occurrence of such conditions to determine whether a correlation exists with any of the meteorological monitoring data collected for the facility, and will incorporate such informations into an appropriate response.
2. – The Landfill Manager encourages all Landfill personnel to report any safety hazards, public nuisances, or anything that may pose a threat to public health or the environment. The Landfill Manager maintains a log of all reports and any complaints from residents and/or the Department relative to nuisances. In addition, relevant construction and operational records note unusual conditions and corrective actions when taken, and these documents are open to regular review by the Department and Township inspectors.
3. – If BLC receives a complaint from a neighboring property owner or from an occupant along the approach routes regarding concerns with odors, dust, mud, vectors, litter, noise or traffic related to Landfill activities, BLC investigates the complaint and reports the findings to the complainant. A record of the complaint and the findings are recorded on the daily operations record.
4. – The Transportation Compliance Plan for the BLC Bethlehem Landfill provides for an annual review of the Plan and an evaluation of whether adjustments to the Plan are needed to minimize and mitigate potential conditions. TCP updated November 2017.
5. – The Transportation Compliance Plan includes trucks hauling cover soil and construction materials.
6. – Odor neutralizers are a water-based product. Therefore, under prolonged temperatures below freezing, the odor neutralizer system will not be operational.
7. – During operational days.
8. – The Tipper shall not be operated during wind events with a sustained rate of 35 mph or more.
9. – Enhanced Odor Monitoring Plan (EOMP)