martin and martin, incorporated

37 south main street • suite A • chambersburg, pennsylvania • 17201-2251

(717) 264-6759
(717) 264-7339 (fax)
www.martinandmartininc.com

August 22, 2022

PaDEP – BWM
Attn: Mr. Roger Bellas-Program Manager
2 Public Square, 4th floor
Wilkes-Barre, PA 18701-1915

RE: Bethlehem Landfill Company
Permit #100020
Major Modification –Northern Realignment
Updates to Forms 1 and 14
Our file: b/1162.4/NR/081822

Dear Roger:

Following up on your August 17, 2022 Environmental Assessment letter, please find enclosed updates to Forms 1 and 14 for the Northern Realignment which incorporates separate stockpiles for daily cover operations and construction projects.

In the event any questions should arise concerning this correspondence, please do not hesitate to contact this office at your convenience.

Very truly yours,
MARTIN AND MARTIN, INCORPORATED

Kevin N. Bodner

cc: Bethlehem Landfill
Lower Saucon Township
Northampton County
LVPC

FORM 14

PAGE 14-1-18b

ADD TO ITEM R- DAILY COVER

Separate soil stockpiles are maintained on-site. There is a soil stockpile(s) on-site solely for Daily cover operations. These stockpile(s) will have a minimum of a 5 day supply of Daily cover materials. Soil stockpile(s) for construction projects will be maintained separately.

1162.4/NR- Form 14 item R

BETHLEHEM LANDFILL COMPANY(BLC)
APPLICATION FOR PERMIT MODIFICATION
NORTHERN REALIGNMENT

ATTACHMENT 1-1
FORM 1 – FACILITY PLAN

ITEM 1 – GENERAL OPERATING CONCEPTS

Background

The Bethlehem Landfill (Permit No. 100020) is located in Lower Saucon Township, Northampton County, Pennsylvania, off of Applebutter Road. The landfill received a Special exception from the Lower Saucon Township Zoning Hearing Board to utilize 206 acres for landfill use. In 1994, 201 acres of landfill was previously permitted by the Department of Environmental Protection (DEP) and this Northern Realignment modification is to provide for +/- 29 acres of waste disposal area in the area previously known as the original landfill, to provide for a +/- 25 "piggyback liner system" over prior disposal areas to provide additional capacity atop the Phase III, Phase IV areas and the Southeastern Realignment. The landfill presently accepts municipal, construction/demolition, DEP approved residual and sewage sludge waste primarily from Northampton, Bucks and Lehigh Counties, PA, New Jersey and New York. The waste streams anticipated for the proposed facility will be similar to those currently accepted.

This application is being submitted to modify the landfill's currently permitted municipal waste disposal area to provide +/-29 acres of additional liner system. All of the proposed disposal area lies within the previously permitted facility.

Daily Operations

All operations will be per prior approvals. Traffic to the landfill is via Applebutter Road. All incoming vehicles are directed to report to the weigh master for inspection of waste, weighing, recording of origin and composition of waste. Upon approval of the weigh master, traffic is directed to the working face. All incoming waste is additionally inspected upon unloading at the working face for compliance with the approved operational plan. Upon approval by the landfill manager or supervisor, the waste is compacted and spread in uniform layers (lifts) not exceeding eight feet in depth using the area method. All exposed waste is covered with suitable cover soil or approved alternative daily cover material at the end of each workday. **BLC maintains separate stockpiles on-site. There are separate stockpile(s) solely for Daily Cover Operations with a minimum of a 5 day supply. Construction projects taking place on-site will utilize a separate material stockpile(s).** Any areas previously filled and covered that are not operational for thirty days or more, are stabilized with temporary vegetation. Any dust created at the landfill is controlled by wetting by mobile (tank) water trucks, as required by seasonal climatic conditions. Litter from the site is controlled by policing the area and nearby roadways and utilizing portable/permanent litter control fences. The entire facility is secured with chain link fence with locking gates. Both temporary and permanent channels, ditches and

sedimentation control facilities prevent accelerated erosion. Stormwater is controlled through channels, slope benches and sedimentation basins which serve to detain peak flows on site.

Leachate collected from the landfill will flow both by gravity and pumping systems to the City of Bethlehem Sewage Treatment Plant or to an on site leachate storage system which drains via pumping to an existing sewer main that flows to the City of Bethlehem Sewage Treatment Plant.

ITEM 1A – ORIGIN, COMPOSITION AND WEIGHTS OF WASTE STREAM

Bethlehem Landfill Company (BLC)presently accepts municipal, construction/demolition and residual wastes from the following areas:

- Pennsylvania – Primarily Bucks, Lehigh and Northampton Counties
- New Jersey
- New York

The anticipated waste streams during operation of this modification are expected to be similar.

Municipal/Construction/Demolition

By volume, municipal waste and construction/demolition waste has accounted for approximately eighty-five to ninety percent of the total waste stream and may consist of garbage, refuse, office waste and other solid, semi-solid or contained gaseous materials resulting from residential, municipal, commercial or institutional establishments. The site also accepts solid waste resulting from the construction or demolition of structures and buildings including, but not limited to, wood, metals, plaster, asphaltic substances, block, bricks, unsegregated concrete, waste from, land clearing, grubbing and excavation, uncontaminated soil, rock, stone, gravel and concrete.

Other

By volume, it is estimated that residual wastes has accounted for approximately ten to fifteen percent of the total waste stream and may consist of garbage, refuse and other discarded materials or other wastes, including solid, semi-solid or contained gaseous materials resulting from industrial, mining or agricultural operations; and sludge from an industrial, mining or agricultural water supply treatment facility, waste water treatment facility or air pollution control facility, if it is not hazardous. Residual wastes are only accepted and disposed of at BLC with DEP approval, in accordance with the permitted Form R.

ITEM 1B – LINER SYSTEMS

The liner system will be identical to the facility's currently permitted liner system. The liner system that is atop old waste will be a "piggyback" system including geogrid reinforcement in addition to all of the components of the other liner system. The liner systems are designed and will be constructed and operated to prevent the migration of leachate through the liner. The liner system is designed to be resistant to physical failure and to be chemically compatible with the anticipated waste stream and resultant leachate through the use of high density polyethylene (HDPE) geomembrane.

Each element of the liner system will be designed and constructed to meet or exceed the performance standards and requirements of Section 273.251 of the current DEP municipal waste rules and regulations. (See Form 24)

ITEM 1C THROUGH 1E – LANDFILL CAPACITY, LIFE EXPECTANCY AND SEQUENCE OF DISPOSAL OPERATIONS

The sequence of operation will be to construct and fill Cells NR-1, NR-2 and NR-3, and to construct the remainder of Cell 4-E. The size of each cell, its capacity, longevity, and fill volumes are shown on the following table. Cell 4-E was permitted with the Southeastern Realignment. The Northern Realignment includes re-sequencing the Cell 4-E effort as shown on the cell development drawing.

BETHLEHEM LANDFILL – NORTHERN REALIGNMENT

Cell #	Area Cell (Acres)	Capacity [1]		Longevity (mos) [3]
		CY	Tons [2]	
NR-1	10.4	857,100	505,689	14.1
NR-2	7.7	599,200	353,528	9.9
NR-3	10.6	848,600	500,674	14.0
TOTAL	31.6	2,304,900	1,359,891	38 (3.2 years)

(1) Capacity is net of liner system and final cover
(2) Assumes VCF = 0.59
(3) 1,375 Tons/day – 312 days/year