pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northeast Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0070483**
Facility Type	**Industrial**	APS ID	**844825**
Major / Minor	**Minor**	Authorization ID	**1340124**

NPDES PERMIT FACT SHEET INDIVIDUAL INDUSTRIAL WASTE (IW) AND IW STORMWATER

Applicant and Facility Information

Applicant Name	**Grand Central Sanitary Landfill, Inc.**	Facility Name	**Grand Central Sanitary Landfill**
Applicant Address	910 Pennsylvania Avenue	Facility Address	910 Pennsylvania Avenue
	Pen Argyl, PA 18072		Pen Argyl, PA 18072
Applicant Contact	Joseph Statile	Facility Contact	Joseph Statile
Applicant Phone	(610) 863-2413	Facility Phone	(610) 863-2413
Client ID	4278	Site ID	256036
SIC Code	4953	Municipality	Plainfield Township
SIC Description	Trans. & Utilities - Refuse Systems	County	Northampton
Date Application Received	December 21, 2020	EPA Waived?	No
Date Application Accepted	December 21, 2020	If No, Reason	Stormwater outfall 003 is subject to the Waltz Creek TMDL
Purpose of Application	Renewal of existing NPDES permit.		

Summary of Review

The applicant is requesting renewal of their NPDES Permit for a discharge of up to 0.100 MGD (Outfall 001) of industrial wastewater from a leachate treatment plant into an unnamed tributary to Little Bushkill Creek (HQ-CWF/MF) and uncontaminated stormwater runoff from seven (7) outfalls; one (1) discharging to Waltz Creek (CWF/MF) and six (6) to unnamed tributaries to Little Bushkill Creek (HQ-CWF/MF). Per the Department's current existing use list, the receiving streams do not have existing use classifications that are more protective than their designated uses. Waltz Creek and Little Bushkill Creek are listed as being impaired per the 2020 Pennsylvania Integrated Water Quality Monitoring and Assessment Report, and the stormwater discharge from Outfall 003 to Waltz Creek is also subject to a Total Maximum Daily Load (TMDL) approved by the U.S. EPA on August 9, 2004.

Grand Central Landfill is a municipal landfill that does not receive hazardous waste. No changes to the surface water discharge from Outfall 001 are proposed. This industrial waste facility is considered a Minor IW facility with ELGs and Outfall 001 is subject to EPA's Title 40 - Protection of Environment, Part 445, Subpart B - Landfills Point Source Category, as follows:

Subpart B—RCRA Subtitle D Non-Hazardous Waste Landfill

§445.20 Applicability.

Except as provided in §445.1, this subpart applies to discharges of wastewater from landfills subject to the provisions of 40 CFR part 258, *Criteria for Municipal Solid Waste Landfills;* and 40 CFR part 257, *Criteria for Classification of Solid Waste Disposal Facilities and Practices.*

Approve	Deny	Signatures	Date
X		*Brian Burden* Brian Burden, E.I.T. / Project Manager	January 31, 2022
X		Amy M. Bellanca (signed) Amy M. Bellanca, P.E. / Environmental Engineer Manager	2-2-22

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§445.21 Effluent limitations attainable by the application of the best practicable control technology currently available (BPT).

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations which represent the application of BPT:

EFFLUENT LIMITATIONS

Regulated parameter	Maximum daily[1]	Maximum monthly avg.[1]
BOD	140	37
TSS	88	27
Ammonia (as N)	10	4.9
α-Terpineol	0.033	0.016
Benzoic acid	0.12	0.071
p-Cresol	0.025	0.014
Phenol	0.026	0.015
Zinc	0.20	0.11
pH	([2])	([2])

[1]Milligrams per liter (mg/L, ppm)
[2]Within the range 6 to 9.

The limitations above are included in the NPDES permit for Outfall 001. Ammonia-N and BOD (converted to $CBOD_5$) have more stringent limitations included in the permit.

Water Quality modeling of the reach below Outfall 001 discharge utilized the following data:

- Point of first aquatic use is assumed to be at the point of discharge in an unnamed tributary to Little Bushkill Creek.

- D.A. at point of discharge = 2.12 m^2.

- Flow Reference: USGS Gage Sta. # 01452500 (Monocacy Creek – carried over from modeling performed in previous permit renewals).

- $Q_{7\text{-}10}$ = 13.2 cfs (from attached gage information on USGS StreamStats interactive map), D.A. = 43.3 mi^2 (from current StreamStats delineation at the gage location).

LFY (Low Flow Yield) = 13.2 cfs / 43.3 mi^2 = 0.30 cfs/mi^2

- **$Q_{7\text{-}10}$** at point of discharge in UNT Little Bushkill Creek: **$Q_{7\text{-}10}$** = D.A. x LFY = 2.12 mi^2 x 0.30 cfs/mi^2 **$Q_{7\text{-}10}$** = 0.63 cfs

Elevations and RMIs were obtained from the Elevation Profile feature of StreamStats and the PA Historic Streams layer on DEP's eMap, respectively.

WQM 7.0 did not recommend more stringent limitations for $CBOD_5$, Ammonia-N or Dissolved Oxygen. DEP's Toxics Management Spreadsheet (TMS) did not recommend more stringent limitations for any parameters. Note: Pollutant Group sampling results for Acrylamide submitted with the renewal application were all non-detect at a QL of 5.0 mg/L. The TMS recommended limitations for the permit since the model assumes 5.0 mg/L in the discharge. As per DEP guidance, 1.) since there is no target QL for Acrylamide in the most current application instructions document (doc. No. 3800-PM-BCW0008a), 2.) the sampling results were all non-detect, and 3.) there's no reason to suspect the pollutant in the discharge based on

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sampling results for other parameters, Acrylamide is not considered a parameter of concern and monitoring/reporting requirements are not included in the permit renewal.

Effluent limitations cited in EPA's Title 40 - Protection of Environment, Part 445, Subpart B - Landfills Point Source Category for toxic parameters of concern were modeled with the TMS. As shown on the attached output, none of the calculated WQBELS are less than the effluent limitations from the BPT ELGs from Part 445, Subpart B input into the model.

The previously approved DRBC Docket No. D-1988-052-4 included effluent limitations for Ammonia-N, Total Dissolved Solids and True Color as well as monitoring requirements for Phosphorus, Nitrate as N and Total Nitrogen. The previously issued NPDES permit (effective 7/1/2016) included the same requirements for those parameters except for Nitrate as N. Monitoring/reporting requirements for Nitrite-Nitrate as N (replaced Nitrate as N) and Total Kjeldahl Nitrogen were added to the permit to calculate Total Nitrogen and are carried over in this renewal.

The latest DRBC Docket No. D-1988-052-5 includes the following new requirements that are added to the NPDES renewal:

EFFLUENT TABLE C-2: DRBC Parameters Not Included in NPDES Permit

OUTFALL NO. 001 (UNT Little Bushkill Creek)		
PARAMETER	**LIMIT**	**MONITORING**
$CBOD_5$ (at 20° C)	Minimal removal of 85% of in-basin wastewater and 100% of out-of-basin wastewater	Monthly
$CBOD_5$ (at 20° C) Influent	Monitor & Report	Monthly

The Additional Requirements section of Part A includes the in-basin and out-of-basin requirements. The records of this information shall be kept on-site in accordance with DRBC provisions.

The Oil and Grease limitations of 15.0 mg/L (Average Monthly) and 30.0 mg/L (IMAX) are required by Chapter 95 - §95.2(2)(ii). The Total Residual Chlorine (TRC) limitations of 0.7 mg/L (Average Monthly) and 1.5 mg/L (IMAX) are carried over from the previous permit. The TRC Calculation spreadsheet did not recommend more stringent limitations for this renewal.

Stormwater monitoring is required for Outfalls 003, 004, 005, 007, 008, 009 and 011. Special conditions and minimum required BMPs have been included in Part C of the permit for facilities covered by SIC code 4953.

Appendix A parameters from the most recent PAG-03 permit are included for all stormwater outfalls. The parameters include pH, TSS, COD, Ammonia-N, Total Arsenic, Total Cadmium, Total Cyanide, Total Lead, Total Mercury, Total Selenium and Total Silver.

The most recent PAG-03 includes benchmark values for TSS (100 mg/L) and COD (120 mg/L) which are incorporated into this renewal. The benchmark values are not effluent limitations, and exceedances do not constitute permit violations. However, if the permittee's sampling demonstrates exceedances of benchmark values for two consecutive monitoring periods, the permittee shall submit a corrective action plan within 90 days of the end of the monitoring period triggering the plan (see Part C.II.F.6).

Stormwater Outfall 003 is the only stormwater outfall discharging to Waltz Creek and Dissolved Copper and Dissolved Zinc were added as parameters of concern in accordance with the Waltz Creek TMDL. Although the TMDL for Waltz Creek lists Dissolved Lead as a parameter of concern, Total Lead monitoring requirements will remain for all stormwater outfalls.

Semiannual stormwater monitoring/reporting requirements for $CBOD_5$, Total Barium, Total Chromium, Dissolved Iron, Dissolved Magnesium, TDS, Nitrate-Nitrite as N, Oil & Grease and TOC are removed from the permit for all stormwater outfalls in accordance with the latest PAG-03 Appendix A monitoring requirements.

Little Bushkill Creek's impairment relates to recreational use of the stream and the source cause is listed as "Source Unknown - Pathogens." To help assess the pathogen issue, Fecal Coliform limitations of 200 No./100 mL (Geometric Mean) and 1,000 No./100mL (IMAX) were included for Outfall 001 in the previously issued permit. The three highest reported IMAX results for Fecal Coliform at Outfall 001 during the previous permit term and administrative extension were: 65 No./100mL (November 2019), 25 No./100mL (January 2020) and 4 No./100mL (October 2016), which are all well below the 1,000

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No./100mL IMAX limitation. Since Outfall 001 doesn't appear to be a significant source of pathogens in the receiving stream, the weekly monitoring requirements are adjusted to monthly requirements for this renewal. Semiannual monitoring requirements for Fecal Coliform at each stormwater outfall is added to the permit to help identify the source of pathogens entering Little Bushkill Creek. This requirement should be adjusted or removed from future permit renewals based on the data obtained during this permit cycle.

The impairment for Waltz Creek is listed for aquatic life and the cause is "Urban Runoff/Storm Sewers - Siltation." Total Suspended Solids had been previously added as a parameter of concern for Outfall 003 and was monitored 1/6 months and reported as a Daily Maximum concentration in mg/L to gather TSS data for the impairment of Waltz Creek during the previous permit term. The average of the semiannual average concentrations reported for TSS since 7/1/2016 is approximately 114 mg/L. In accordance with the current benchmark requirements for TSS, if the permittee's sampling demonstrates exceedances of benchmark values for two consecutive monitoring periods at Outfall 003 after the permit effective date, the permittee shall submit a corrective action plan within 90 days of the end of the monitoring period triggering the plan (see Part C.II.F.6).

Since the previous permit was issued on 7/1/2016, the following WQM permits have been issued to the permitee:

4804201 A-1 issued 6/17/2021 for: Conversion of the Sequencing Batch Reactor treatment process with a continuous flow-through Membrane Bioreactor process. New VFD-controlled reactor feed pumps were to replace the existing feed pumps to the reactor tanks. The existing simplex microfilter was to be replaced with a duplex ultrafilter. Each ultrafilter was to have a design capacity of up to 130,000 gpd and be capable of independent operation from either or both reactor tanks. A feed tank was to be installed for the existing second reverse osmosis unit. Piping was to directly connect influent Tank 3 to the Membrane Bioreactor equalization tanks and the Membrane Bioreactor tanks to allow for bypassing the primary clarification process.

4819201 issued 4/15/2019 for: Installation of a pH adjustment and phosphoric acid supplementation system for a 1.3-million-gallon influent equalization tank (Tank 3). A pH probe was to be installed on the influent line to Tank 3 in the Tank 3 Valve Chamber. When pH is too low, alkalinity in the form of liquid magnesium hydroxide will be added to the wastewater. When pH is too high, sulfuric acid will be added. A chemical storage building was to be installed to house the 5,300-gallon magnesium hydroxide and sulfuric acid storage tanks and metering pumps. The magnesium hydroxide and sulfuric acid feed pumps will be flow-paced based on a signal from the pH probe. A 55-gallon drum of phosphoric acid will be located in Valve Chamber 1 and the feed pump will be controlled manually.

There are no open WPC NPDES violations that would warrant withholding the issuance of this permit. Antibacksliding requirements have been met since no limitations have been made less stringent. Antidegradation requirements have been met since there is no increase in the discharge. The EPA waiver is not in effect (discharges to TMDL stream).

A higher Total Boron average monthly limitation of 8.9 mg/L was requested in the permit application to be included in this renewal for Outfall 001. The current average monthly limitation is 5.5 mg/L and can't be made less stringent due to antibacksliding requirements. Antibacksliding provisions can be found in Section 7.2.1 of EPA's NPDES Permit Writers' Manual (rev. 9/2010).


TMS PA0070483.pdf


TMS PA0070483 ELG.pdf


TRC Calculation.pdf


Watershed Information.pdf


Gage 01452500 Low Flow.pdf


Gage 01452500 StreamStats.pdf


WQM 1.pdf


WQM 2.pdf


WQM 3.pdf


WQM 4.pdf


WQM 5.pdf


WQM 6.pdf


Docket 1988-052-5.pdf

Public Participation

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-

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day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.1
Latitude	40º 50' 38"	Longitude	-75º 15' 57"
Quad Name	Wind Gap	Quad Code	1243
Wastewater Description:	IW Process Effluent with ELG		
Receiving Waters	Unnamed Tributary to Little Bushkill Creek (HQ-CWF/MF)	Stream Code	4630
NHD Com ID	26066422	RMI	8.2
Drainage Area	2.12	Yield (cfs/mi^2)	0.30
Q_{7-10} Flow (cfs)	0.63	Q_{7-10} Basis	Gage 01452500
Elevation (ft)	607	Slope (ft/ft)	0.0094
Watershed No.	1-F	Chapter 93 Class.	HQ-CWF/MF
Existing Use	-	Existing Use Qualifier	-
Exceptions to Use	-	Exceptions to Criteria	-
Assessment Status	Impaired		
Cause(s) of Impairment	Pathogens		
Source(s) of Impairment	Source Unknown		
TMDL Status	-	Name	-

Background/Ambient Data		Data Source
pH (SU)	-	-
Temperature (°F)	-	-
Hardness (mg/L)	-	-
Other:	-	-

Nearest Downstream Public Water Supply Intake	BCWSA New Hope		
PWS Waters	Delaware River	Flow at Intake (cfs)	2010 (using same LFY)
PWS RMI	73.3	Distance from Outfall (mi)	~52