

Inspection Checklist for Host Municipality Inspectors
for
MUNICIPAL WASTE LANDFILLS

Inspector Name: Donald Bowman, Colliers Engineering & Design **Inspection Date:** 04/29/2021 **Start Time:** 10:00am
Finish Time: 11:00am

Facility Name: Chrin Brothers Sanitary Landfill **Facility Address:** 1225 Industrial Drive, Easton (Williams Twp.) PA 18042

Facility Contact Person/Title/Phone Number: Tom McMonigle (610) 258-8737

DAILY OPERATION REQUIREMENTS	Yes	No	NA	ND	COMMENTS/NOTES
Trucks using designated roads/approved parking areas per permit	X				
Operations conducted during permitted operating hours	X				
Access controlled per plan	X				Facility is fenced with locks for gates
Access road(s) maintained (erosion, dust, litter, mud etc.) per plan	X				
Waste measured according to approved plan	X				Certified vehicle scales in use during inspection
Vehicles directed promptly to unloading area	X				
Vehicles promptly unloaded	X				Trucks tipped at active working face 3D/3E during inspection
Inspection procedures implemented for prohibited wastes per plan	X				
No unapproved wastes	X				
Solid waste spread and compacted into layers per plan	X				
Procedures followed within 1 st 8 ft. to protect liner/protective cover				X	
No waste <25 ft. from edge of liner, 4 ft. berm, edge marked, etc.	X				
Procedures followed for special handling and residual wastes	X				
No open burning	X				
Fugitive dust emissions minimized and controlled per plan	X				
Vectors minimized and controlled per plan	X				
Odors minimized and controlled per plan	X				Perimeter demisters in operation; complaints down
Other nuisances minimized and controlled per plan	X				
Litter minimized and controlled per plan	X				
Daily waste acceptance < ave. 1,500 tons and max. 2,000 tons daily vol.	X				Averaged 550 TPD for April to date; maximum 667 TPD
Radiation monitoring system operational	X				1 exceedance in April
Radiation protection action plan followed as appropriate	X				
Approved daily cover used at end of day or within 24 hours	X				Daily cover either soil or tarps
Vegetation established and maintained per plan	X				
Surface and groundwater pollution discharges prevented/controlled	X				
Water treatment facilities operated and maintained	X				
Soil and erosion control BMPs are maintained per plan				X	
Sedimentation and discharge structures operated and maintained	X				
Flow from leachate collection system monitored daily	X				
Leachate treatment facilities operated and maintained	X				
Landfill gas controlled per plan	X				
Daily operational records being made and maintained (i.e. waste received, problems, violations, rejected loads, radioactive mat., overweight trucks, etc.)	X				
Cost effective recyclable materials are being salvaged				X	
Salvaged materials are stored in an approved area	X				
Recyclable materials collection center maintained	X				
No immediate threats to public health and safety	X				

Additional Comments: _____

Inspector Signature: Donald Bowman

Date: 04/29/2021

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DESIGN and CONSTRUCTION REQUIREMENTS	Yes	No	NA	ND	COMMENTS/NOTES
Proper signs posted (Identify facility and recycling drop-off center)	X				
Grid coordinate system and permit areas clearly marked	X				
Site perimeter clearly marked	X				
Perimeter fences and barriers in place and maintained	X				
Access roads properly designed and constructed per plan	X				
Scale conforms with Consolidated Weights and Measures Act				X	
Adequate equipment on-site and stand-by equipment available				X	
Fences or other barriers to control litter are constructed per plan				X	
Radiation monitoring system constructed per plan				X	
Daily and intermediate cover material conforms with plan				X	
Final cover conforms with plan				X	
Soil and erosion control BMPs implemented per plan				X	
Sedimentation ponds constructed per plan				X	
Discharge structures constructed per plan				X	
Subbase constructed according to regulations				X	
Secondary liner constructed per regulations and approved plan				X	
Leachate detection system installed per regulations				X	
Primary liner constructed per regulations and approved plans				X	
Protective cover constructed per regulations				X	
Leachate collection system installed according to regulations				X	
Leachate storage impoundments constructed per regulations				X	
Leachate treatment system constructed per plans				X	
Wastewater treatment equipment constructed per <u>discharge</u> permit				X	
Groundwater monitoring wells installed per plan				X	
Landfill gas collection and destruction system constructed per plan				X	
Air pollution control equipment constructed per <u>air</u> permit				X	
Emergency equipment available per regulations and plan				X	
Recyclable materials collection center established per plan				X	
MONITORING and RECORDKEEPING REQUIREMENTS	Yes	No	NA	ND	COMMENTS/NOTES
Flow from leachate <u>detection</u> system monitored weekly				X	
Potential for offsite odors inspected on a regular and frequent basis				X	
Liquid from leachate detection system analyzed quarterly				X	
Liquid from leachate <u>collection</u> system analyzed quarterly				X	
Wastewater discharge analyzed per <u>discharge</u> permit (if applicable)	X				Sampled 1/12-1/14
Wastewater discharge complies with <u>discharge</u> permit limits	X				March report submitted 4/1; 1 st Quarter 2021 Progress Report submitted 4/17
Groundwater monitored and analyzed quarterly	X				Sampled 1/12-1/14
Landfill gas levels monitored quarterly	X				March report submitted 4/1; 1 st Quarter 2021 Progress Report submitted 4/17
Combustible gas levels not exceeded				X	Flare No. 3 out of service for maintenance
Recovered gas and condensate analyzed annually				X	
REPORTING REQUIREMENTS	Yes	No	NA	ND	COMMENTS/NOTES
Plan submitted if <u>detected</u> leachate > 100 gal/acre/day				X	
Remedial plan submitted if <u>detected</u> leachate could degrade GW				X	
Wastewater discharge reported as required by <u>discharge</u> permit				X	
Groundwater monitoring results reported quarterly	X				
Groundwater assessment plan submitted if groundwater degraded				X	
Abatement plan submitted if groundwater exceeds Act 2 standards				X	
Public notice on recyclable materials collection center provided 2/yr.				X	
Quarterly Operation report submitted as required				X	
Annual Operation report submitted as required				X	

Comments: _____

Inspector Signature: Donall Bown

Date: 04/29/2021

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OPTIONAL QUESTIONS on CHANGES	Yes	No	NOTES/IMPACT on CONFORMANCE
Owners/operators			
Employees/personnel			
Contractors/subcontractors			
Customers/waste generators			
Transporters/transfer stations			
Special or residual wastes			
Site volume/capacity			
Average or maximum daily volume			
Permitted acreage			
Access roads			
Cells/construction			
Operating equipment			
Leachate collection and treatment method			
Water pollution control equipment			
Gas monitoring or management plan			
Air pollution control equipment			
>10% increase in leachate/wastewater volume			
>10% increase in leachate/wastewater contaminants			
Newly closed cells			
Post closure land use			

Comments: Joe Black from Williams Township also present for this inspection.

Flare No. 3 is out of service today so that the heat exchanger (used in winter months only) can be removed.

Heat removed from this heat exchanger is used to heat the garage in the winter months.

Also noted was an in-line fabric filter that was removed and reinstalled – this removes particulates and acts as a flame arrestor.

The EPP Plant is running at ~830 cubic feet per minute with ~38.1 percent methane.

For approved expansion: Stage 9 western half construction nearly complete, eastern half now under construction.

Blasting for rock being staged during inspection; Williams Township is receiving notifications from Chrin landfill.

See attached “Chrin Brothers Sanitary Landfill Engineer’s Report Summary” dated April 15, 2021.

Inspector Signature: 

Date: 04/29/2021



**Chrin Brothers, Inc. Sanitary Landfill
Construction, Operations and Permitting Schedule
For March 2021**

Operations and Construction:

1. Working Face
 - a. Currently filling in Stage 3D/3E.
2. Stage 3D/3E Slide Area
 - a. Slide Waste excavation along the Stage 3E scarp area is complete. Chrin welded the primary liner to the secondary liner in the older section of Stage 3E located immediately east of the new Stage 3E liner system's anchor trench/berm.
3. Temporary Cap for Stage 8 – Completed in June 2020. Winter repairs are ongoing.
4. Stage 3E Liner Construction
 - a. Stage 3E liner installation was completed in late September 2019.
 - b. Three Form 37s, Certification of Construction, were submitted in early October 2019. These were for the Subbase, Liner System and Protective Cover.
 - c. Form 37 for the protective cover was approved on November 18, 2019.
 - d. Chrin completed protective cover in Increment 8 in March 2021. The Form 37 was submitted on March 17, 2021 and was approved by PADEP on April 13, 2021.
 - e.
5. Stage 9 Construction
 - a. Southern fence line cleared.
 - b. Tree clearing was completed.
 - c. Fence installation completed.
 - d. Cuts and fills are ongoing.
 - e. Blasting is ongoing. 18 blasts have been completed through March 31, 2021.
 - f. Drilling and blasting will proceed throughout the first and second quarter of 2021.

6. Landfill Gas System
 - a. Gas well drilling was completed in late January 2021. Eight wells totaling 512 feet in depth were drilled and constructed. Wells were connected to the landfill gas collection piping network in February 2021.
 - b. Gas well branch lines and header extension to the new wells will commence immediately after well drilling.

7. Permit Applications and Submissions:
 - a. There are no permit applications under consideration by PADEP at this time.

Flare Data 4/15/2021:

EPP: Flow – 900 scfm

Flare #3: Flow – 840 scfm

Flare #4: Flow – 0 scfm

Flare #1: Flow – 0 scfm



**CHRIN BROTHERS SANITARY LANDFILL
ENGINEER'S REPORT SUMMARY
For March 2021**

Date: April 15, 2021

1. Site Operations:

a. Average Daily Permitted Volume	<u>1500 Tons</u>	Tons
b. Maximum Daily Permitted Volume	<u>2000 Tons</u>	Tons
c. Permitted Area	<u>108</u>	Acres
d. Permitted Disposal Area	<u>73</u>	Acres
e. Number of Capped Acres	<u>26.4</u>	Acres
f. Number of Temporary Capped Acres	<u>24.5¹</u>	Acres
g. Number of Acres Constructed	<u>71.09²</u>	Acres

2. Radiation Monitoring:

a. Number of Trucks that Tripped the Radiation Meter	<u>1</u>
b. Number of Trucks on Hold or Rejected	<u>0</u>

3. Truck Safety & Overweight's:

a. Number of Overweight Trucks	<u>92</u>
b. Number of Trucks Rejected Due to Overweight	<u>0</u>

4. Leachate Management:

a. Total Leachate Flow from Combination Sumps/Gravity	<u>2,560,934</u>	Gallons
b. Depth Levels	<u>Normal</u>	
c. Leachate Detection/Witness Zone Flow:		
i. WZ5	<u>16.7</u>	g/a/d
ii. WZ6	<u>6.6</u>	g/a/d
d. Average Daily Flow	<u>82,611</u>	Gallons/Day
e. Leachate Hauled Off Site	<u>0</u>	Gallons

5. Leachate Storage:

a. Total Influent Storage Capacity	<u>1,490,125</u>	Gallons
b. 25% Influent Storage Capacity	<u>326,500</u>	Gallons
c. Current Wastewater Stored	<u>3.2</u>	ft. = <u>64,000</u> Gallons

6. Reports Submitted

a. Quarterly Progress Report	<u>Q1 2021 submitted on April 17, 2021</u>
b. Groundwater Treatment Monthly Report	<u>March Report - 4/1/2021</u>

¹ This includes 18 acres of temporary cap, 4.8 of which were installed in December, and approximately 6.5 acres of raintarp.

² This includes Stage 6-2's 0.6 acres installed in December.



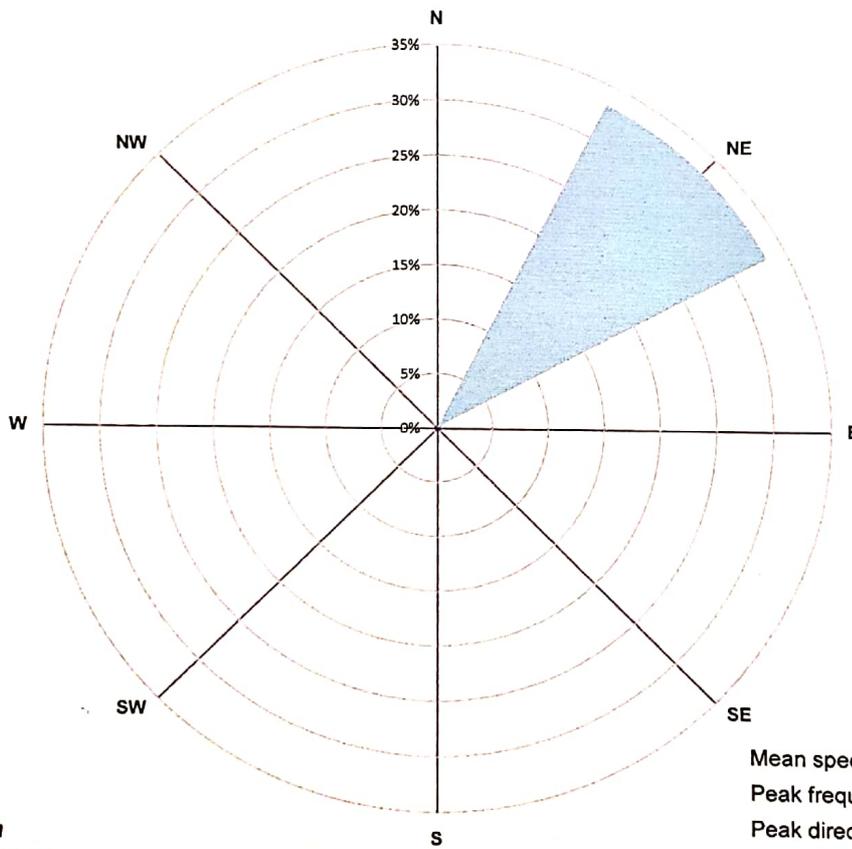
CHRIN BROTHERS, INC.

Flare 3 Down for maintenance
EPP Plant 830 CFM 38.1% CH₄



Chrin Landfill

Thursday, April 29 2021 - 10:00am



- Wind speed (mph)**
- 72.00 to 999.00
 - 63.00 to 72.00
 - 54.00 to 63.00
 - 46.00 to 54.00
 - 38.00 to 46.00
 - 31.00 to 38.00
 - 24.00 to 31.00
 - 18.00 to 24.00
 - 12.00 to 18.00
 - 7.00 to 12.00
 - 3.00 to 7.00
 - 1.00 to 3.00

Temp - 72
WS - 3 mph
WD - Northeast
Rh - 68%
BP - 29.77

Mean speed: 1.00
Peak frequency: 33.33%
Peak direction: NW
Percent calm: 0.00%
Calm defined as: < 1.00 mph

	Daily	Total Week	Month Average	Day	Total Month
April					
1	665.8		665.8	1	665.8
2	668.3		667.1	2	1,334.1
3	62.1		465.4	3	1,396.2
4		1,396.20			
5	680.6		415.4	5	2,076.8
6	834.3		485.2	6	2,911.1
7	755.4		523.8	7	3,666.5
8	798.5		558.1	8	4,465.0
9	717.7		575.9	9	5,182.7
10	65.2		524.8	10	5,247.9
11		3,851.70			
12	855.1		508.6	12	6,103.0
13	815.3		532.2	13	6,918.3
14	771.8		549.3	14	7,690.1
15	743.4		562.2	15	8,433.5
16	721.9		572.2	16	9,155.4
17	63.6		542.3	17	9,219.0
18		3,971.10			
19	803.2		527.5	19	10,022.2
20	799.6		541.1	20	10,821.8
21	779.0		552.4	21	11,600.8
22	712.8		559.7	22	12,313.6
23	650.7		563.7	23	12,964.3
24	95.5		544.2	24	13,059.8
25		3,840.80			
26	876.1		536.0	26	13,935.9
27	771.9		544.7	27	14,707.8
28	716.2		550.9	28	15,424.0
29			531.9	29	15,424.0
30			514.1	30	15,424.0