



OCTOBER 27 2022

LOESS HILLS MUNICIPAL LANDFILL
ATTN: RYAN MITCHELL
59722 290th STREET
MALVERN, IA 51551

Subject: Loess Hills Regional Sanitary Landfill Inspection
Permit No. 65-SDP-01-72P, Mills County
Staff Action Nos. 160234 & 162295

Dear Mr. Mitchell:

On October 17, 2022, the Iowa Department of Natural Resources (DNR) conducted a routine inspection and observed the new cell at the facility listed above. During the inspection, I was accompanied by Mike Smith (DNR Solid Waste Engineer). The purpose of this letter is to inform you of the outcome of the inspection. Copies of the reports are attached to this letter for your reference.

You should find the reports to be self explanatory; however, if you have any questions, please contact me via telephone at (712) 243-1934 or by email at ryan.young@dnr.iowa.gov.

Sincerely,

Ryan Young
Environmental Specialist
Field Services and Compliance Bureau

RPY/rpy/Malvern101725.sw.Loess Hills inspection cover letter.young.doc

Enclosure: Inspection Report and New Cell Memo

CC Becky Jolly & Mike Smith, SW Section (VIA EMAIL)
Justin Franks Regional Sanitary Landfill (VIA EMAIL)
Ryan Mitchell, Loess Hills Regional Sanitary Landfill (VIA EMAIL)
Loess Hills Landfill File

IOWA DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL SERVICES DIVISION

Field Office #4

1401 Sunnyside Lane, Atlantic, IA 50020

Phone: (712) 243-1934 FAX: (712) 243-6251

REPORT OF INVESTIGATION

INVESTIGATION DATE

CURRENT: 10/17/2022

LAST: 6/8/2021

TO: Loess Hills Regional Sanitary Landfill
59772 290th Street
Malvern, IA 51551

SUBJECT: Loess Hills Regional Sanitary Landfill Routine Inspection
Permit #65-SDP-01-72P

PERSONS CONTACTED: Ryan Mitchell, Landfill Operations Manager
Justin Franks, Assistant District Manager

OBSERVATIONS:

Permit Review:

- The permit reporting requirements have been submitted by SCS Engineers.

On-site observations:

- Upon arrival I met with Mr. Mitchell and Mr. Franks. At the time of the inspection, Mike Smith (IDNR Solid Waste Engineer) and I were onsite to observe the new cell as well. It was noted that the facility is in the process of constructing a methane processing facility located on the south side of the landfill. The facility would allow the landfill to pump methane gas into a nearby pipeline.



New Cell

- It was noted that a large portion of the west facing slopes had been graded and seeded this year. Due to ongoing drought conditions, the vegetation hasn't fully germinated. There were a few areas of rill erosion that should be addressed as needed.
- Mr. Mitchell stated that in the future, the facility will be closing the leachate lagoon and installing multiple leachate storage tanks. Mr. Franks also noted that the facility would be purchasing a second leachate tanker to ensure they were able to keep up with leachate hauling from the tanks. The facility also has an agreement with Council Bluffs Septic to haul leachate if needed as well.



Tipplers w/ Bull Fencing


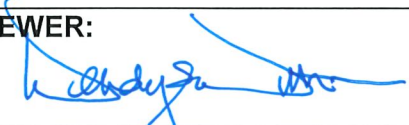
- During construction of the new cell, the facility is adding a stormwater retention basin along the west side of the landfill. Mr. Mitchell stated that they would be cleaning out the existing stormwater basin out in the near future.
- The facility continues to use fluff as alternative daily cover in addition to dirt. The facility will also be adding additional fencing around the landfill to help control litter from leaving the site. Landfill staff are also making routine visits to the residential area to the north to retrieve any windblown litter in addition to picking it up along Highway 34 as mentioned in previous inspection reports.

Conclusion:

During the inspection, the facility appeared to be in compliance.

Requirements:

- Continue to grade and seed intermediate cover as needed.
- The facility must abide by all requirements in the Operation Permit.
- The facility must abide by all requirements in the General Permit #1 (storm-water) including developing and maintaining a Storm Water Pollution Prevention Plan.

AUTHENTICATION	
INSPECTOR: 	DATE: 10/27/2022
REVIEWER: 	DATE: 10/27/2022

Iowa Department of Natural Resources
Sanitary Disposal Project
New Cell Inspection Checklist

Permit Number – 65-SDP-01-72P		Inspection Date - October 17, 2022			
Facility Name – Loess Hills Regional Sanitary Landfill		Weather Conditions – 35 degrees F, 20mph NW wind			
Landfill Contact Person - Justin Franks, Ryan Mitchell		Cell/Phase Reference Number -Cell G North/M			
		Central Office Notes (Include electronic versions of pertinent plan sheets)	Field Office Notes		
1. Approved Plans and Specifications for the New Cell Plan Available For Review?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>	Pertinent plan sheets must be reviewed and used during the inspection to perform spot checks on cell construction.	A set plans/specifications was available for review during the inspection.
2. Cell Components					
a. Groundwater Underdrain System	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not required at all sites. Describe general construction of system – i.e. parallel trench or underdrain blanket type of system. May need to refer to plans as this system may not be visible.	The cell includes an underdrain system composed of a geocomposite drainage system beneath the entire cell liner system along with a series of two perforated HDPE collection pipes bedded in gravel.
1) Constructed in apparent accordance with plans?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Inspect outfall and check for flowing water, at a minimum. Describe any noted deviations from the plans and any new problems identified during this inspection related to this issue.	The downstream most underdrain pipe connects to the underdrain system in the adjacent cell (Cell G) at the southeast corner of the new cell and flows to a storm water ditch southeast of the cell.
b. Liner System				Describe system	
1) Compacted Clay and Flexible Membrane Liner (FML)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	May need to refer to plans as this system may not be visible. For clay component, <u>if possible</u> , measure thickness and inspect surface for evidence of compaction at the liner edge. For FML component, <u>if possible</u> , inspect the surface or edge of the liner at a seam/weld. A geotextile cushion must be placed on top of the FML.	The 2-foot clay liner and geomembrane were covered with a protective geotextile and the 12-inch sand leachate drainage layer.
2) Compacted Clay or Other Liner Type	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	May need to refer to plans as this system may not be visible. <u>If possible</u> , measure thickness and inspect surface for evidence of compaction at the liner edge.	NA

3) Constructed in apparent accordance with plans?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Describe any noted deviations from the plans and any new problems identified during this inspection related to this issue. Basal liner and sideslope (abuttment) liner may be constructed differently.	No deviations from the plans were necessary. The compacted clay liner installation process was straightforward with moisture and density testing consistent. Shelby tube results indicate a good clay liner. The geomembrane was installed as planned.
c. Leachate Collection System					
1) Piping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	May need to refer to plans as this system may not be visible. Confirm that collection piping to the leachate lagoon, pipe cleanouts, and leachate head piezometers were installed.	The piping consisted of two legs of 6 inch perforated HDPE pipe embedded in gravel. One west to east pipe flowed to a pipe on the east side of the cell where it flowed south and tied into the existing piping from the adjacent Cell G. The connection to the existing pipe will be made once the cell is approved.
2) Drainage Layer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Inspect and measure thickness and describe if it is a "granular" layer, such as sand or tire chips, and/or if it is a geonet (i.e. triplanar geonet sandwiched with geotextile).	The drainage layer consisted of 12 inches of sand
3) Constructed in apparent accordance with plans?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Describe any noted deviations from the plans and any new problems identified during this inspection related to this issue.	The LCS was constructed in accordance with the plans with no deviations.
d. Leachate Storage					
1) Constructed in apparent accordance with plans?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Describe any noted deviations from the plans and any new problems identified during this inspection related to this issue.	An existing leachate pond is located on site. Leachate from the new cell flows into the header pipe in the adjacent cell to the south and eventually to the leachate pond. No new construction was necessary other than the connection to the new pipe to the existing pipe in the adjacent cell.
3. Surface Water Run-On Control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is storm water effectively prevented from entering the disposal cell or is sedimentation occurring?	Perimeter berms and storm water channels have been constructed as necessary to prevent storm water from entering the new cell.
1) Constructed in apparent accordance with plans?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Describe any noted deviations from the plans and any new problems identified during this inspection related to this issue.	No deviations from the plans
4. Surface Water Run-Off Control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All storm water that comes into contact with waste must be directed to the leachate collection system.	All water that contacts waste within the cell will be contained in the cell and enter the leachate collection system. Cell grades sloped into the cell and berms constructed on the west and east ends of the cell help to contain any leachate.

1) Constructed in apparent accordance with plans?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Describe any noted deviations from the plans and any new problems identified during this inspection related to this issue.	No deviations from the plans during construction.
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