



October 15, 2024
PA009580

VIA ELECTRONIC MAIL

Mr. Michael B. "Mick" Leat
Solid Waste Section
Iowa Department of Natural Resources
Wallace State Office Building
502 East 9th Street
Des Moines, IA 50319

Subject: Second Semiannual Landfill Inspection Report - 2024
 WDC Acquisition LLC Landfill
 Permit No. 88-SDP-04-86P

Dear Mr. Leat:

Enclosed please find the Second Semiannual Landfill Inspection Report - 2024 for the WDC Acquisition, LLC (WDC) Landfill in Creston, Iowa. This report is being submitted in accordance with Section IX, General Provisions of the Sanitary Disposal Project Permit No. 88-SDP-04-86P. It summarizes the results of the landfill inspection performed by Penn Environmental & Remediation, Inc. (Penn E&R) personnel on September 18, 2024. Please note the inspection was performed during active landfill cap construction, which is planned to be completed this Fall.

The enclosed document (Field Observation Checklist, Iowa Sanitary Landfills) serves as the Engineer's Report describing the site's conformance/nonconformance with the permit, applicable regulations, and approved plans and specifications. If you have any questions, please contact our office.

Respectfully submitted,
PENN ENVIRONMENTAL & REMEDIATION, INC.

A handwritten signature in black ink, appearing to read "Robert J. Roach", is written over a light gray rectangular background.

Robert J. Roach, P.E.
Senior Project Engineer

Enclosure
cc: M. Thelen

S:\PROJECT FILES\4000-PA009580 WDC 2024 Technical Assistance\2024 Inspections\Second Inspection\WDC 2nd 2024 LF Transmittal.docx

**FIELD OBSERVATION CHECKLIST
IOWA SANITARY LANDFILLS**

Facility: WDC Acquisition LLC; Creston, Iowa

Observation Date: September 18, 2024

Operator: Matt Thelen

Persons Present: Matt Thelen, Bob Roach, Contractor Laborers for Landfill Cap

Weather: Partially Sunny, 70's °F

A. Documents Used to Review Conformance

1. Iowa Department of Natural Resources
Sanitary Disposal Project Permit

No. 88-SDP-04-86P

Issued: September 15, 2021

Expires September 15, 2024 (Note: Notice of Closure and Form 50
Closure Permit Application was submitted to IDNR on June
13, 2024)

Revision: No. _____ Issued: _____

No. _____ Issued: _____

No. _____ Issued: _____

2. Plans and Specifications

Title and Date: WDC Acquisition, LLC

Solid Waste Landfill Permit Application dated
June 2021

3. IAC Rule 567, Chapter 102, effective 01/15/03, last published 07/02/08.
4. IAC Rule 567, Chapter 115, effective 10/31/07, last published 07/02/08.

B. Permit Requirements	CONFORMANCE WITH PERMIT, PLANS, AND SPECIFICATIONS			
	C	NC	N.O.	N.A.
• No title transfer has been made without application within 30 days to transfer permit (Section IX, Page 2).	X			
• Compliance with fee schedules/reporting and waste weighing protocols (Section IX, Page 2; Section X, Special Provision Nos. 3 and 6).	X ⁽¹⁾			
• The facility is staked as necessary (Section IX, Page 2).				X ⁽²⁾
• The facility is inspected semiannually by an Iowa registered Professional Engineer, and a brief report is submitted (Section IX, Page 2).	X			
• Project does not cause discharge of pollutants into waters of United States violating Clean Water Act or local/state requirements (Section IX, Page 2).			X ⁽³⁾	
• Permit holder has submitted annual Sanitary Landfill Financial Assurance Report Form (Section IX, Page 3).	X			

C = Conformance
 NC = Nonconformance
 N.O. = Not Observed
 N.A. = Not Applicable

B. Permit Requirements (Continued)	CONFORMANCE WITH PERMIT, PLANS, AND SPECIFICATIONS			
	C	NC	N.O.	N.A.
• Permit holder has accepted authorized waste streams. No free liquids, toxic or hazardous wastes have been accepted (Section X, Special Provision No. 1).	X			
• Waste disposal limited to existing waste boundary and vertical height as shown in approved Solid Waste Landfill Permit Application dated August 2018 (Section X, Special Provision No. 2.a.).	X ⁽¹⁴⁾			
• The exhumation activities shall be conducted such that the permit holder shall maintain positive drainage and control dust at all times (Section X, Special Provision No. 2.b.).	X ⁽⁴⁾			
• Beginning in 2016, the landfill is surveyed biennially and remaining airspace and landfill life is estimated (Section X, Special Provision No. 2.c.).	X ⁽²⁾			
• The permit holder has an agreement with the local POTW for leachate treatment, with compliance (Section X, Special Provision No. 2.d.).	X ⁽³⁾			
• Leachate elevations and collected volume are recorded monthly (Section X, Special Provision 2.d.). (Monthly leachate elevations to continue based on IDNR letter dated February 18, 2015.)	X			
• The leachate collection system is effective (Section X, Special Provision No. 2.d.).	X ⁽³⁾			
• Drainage is diverted around the fill area and provided at the toe of the working face (Section X, Special Provision No. 2.e.).	X ⁽⁴⁾			
• Permit holder follows guidelines provided by the Department relative to habitat and survey requirements for Indiana bat summer habitat potentially present in the area (Section X, Special Provision No. 2.f.).				X ⁽⁵⁾
• Hydrologic monitoring conforms to the Hydrologic Monitoring System Plan and all monitoring wells are in place, maintained, sampled, and reported (Section X, Special Provision No. 4).	X			

C = Conformance
 NC = Nonconformance
 N.O. = Not Observed
 N.A. = Not Applicable

	CONFORMANCE WITH PERMIT, PLANS, AND SPECIFICATIONS			
C. Iowa Administrative Code, Rule 567, Chapter 102	C	NC	N.O.	N.A.
• Open burning is prohibited [102.13(1)].				X ⁽⁶⁾
• Litter is confined to the property [102.13(2)].				X ⁽⁶⁾
• Scavenging is prohibited [102.13(3)].				X ⁽⁶⁾
• Effective means control flies, insects, rodents, and vermin [102.13(4)].				X ⁽⁶⁾
• Adequate equipment operates the site [102.13(5)].	X			
• Major internal roads are of all-weather construction, are maintained in good condition, and dust is controlled [102.13(6)].		X ⁽⁷⁾		
• No free liquids or wastes containing free liquids are accepted [102.13(8)].	X			

C = Conformance
 NC = Nonconformance
 N.O. = Not Observed
 N.A. = Not Applicable

	CONFORMANCE WITH PERMIT, PLANS, AND SPECIFICATIONS			
D. Iowa Administrative Code, Rule 567, Chapter 115	C	NC	N.O.	N.A.
• A certified sanitary landfill operator is on duty during all hours of operation [115.26(2)a; 115.29(1)].	X ⁽⁸⁾			
• Access is restricted; the entrance gate is locked when an attendant or operator is not on duty [115.26(2)b].	X ⁽⁹⁾			
• A copy of the permit, engineering plans, and reports are kept at the site at all times [115.26(2)c].	X			
• A sign is posted at the entrance specifying name of operation, permit number, site is not open to the public, and name/telephone number of responsible official [115.26(2)d].	X			
• Solid waste is deposited in a way to avoid pollution [115.26(2)e].				X ⁽¹⁰⁾
• Fill area and cover materials are available for winter and wet weather [115.26(2)f,g].			X ⁽¹¹⁾	
• The site is graded and drained to minimize water flow onto fill areas, erosion, and ponding [115.26(2)h].		X ^(3,4)		
• The finished surface of the site is covered with soil and seeded promptly upon completion [115.26(2)i].				X ⁽¹²⁾
• The leachate collection system is cleaned out once every 3 years and a report is submitted at permit renewal [115.26(11)a(8)].	X ⁽¹³⁾			
• Final cover conforms to 115.26(13)b.				X ⁽¹²⁾

C = Conformance
 NC = Nonconformance
 N.O. = Not Observed
 N.A. = Not Applicable

		CONFORMANCE WITH PERMIT, PLANS, AND SPECIFICATIONS			
E. Plan Requirements		C	NC	N.O.	N.A.
• Fill areas		X ⁽¹⁴⁾			
• Fill slope		X ⁽¹⁴⁾			
• Fill height		X ⁽¹⁴⁾			
• Distance between fill and property line		X ⁽¹⁴⁾			
• Landscaping and vegetative growth			X ^(3,4)		
• Operation is consistent with development plan and phasing plan.		X ⁽¹⁴⁾			
• Cover borrow areas are consistent with future expansion and development.		X ⁽¹¹⁾			
• Monitoring wells are in place.		X			
• Road location		X ⁽⁷⁾			

C = Conformance
 NC = Nonconformance
 N.O. = Not Observed
 N.A. = Not Applicable

Observation Notes

This landfill inspection was completed during construction of the landfill's IDNR-approved cap. Compacted clay soil was mostly installed and was being installed during the inspection. WDC intends to complete the landfill cap construction and seed it in the Fall of 2024.

- (1) The Iowa Department of Natural Resources (IDNR) sent a letter to Wellman Dynamics Corporation (now WDC Acquisition LLC or WDC) dated December 4, 2009, indicating that WDC foundry sand is not exempt from statewide tonnage fees. Fee submittals and reporting were revised to comply with the letter beginning with the third quarter of 2009.
- (2) Garden & Associates, LTD (Garden) completed site topographic survey and associated staking in March 2024, per Sanitary Landfill Permit No. 88-SDP-4-86P, Section X, Special Provision No. 2.c. The biennial remaining landfill airspace/life calculation was completed and submitted in March 2024. This survey was the final existing conditions survey before construction. The stakes were removed during construction. After construction, the Contractor graded the landfill waste to meet required slopes for closure. Garden surveyed the final waste topography. Garden will return to survey the topography of the top of the compacted clay layer and the top of the uncompacted soil layer to ensure appropriate thickness before project completion.
- (3) Liquid levels within the leachate collection lines and the sump were observed at the time of inspection. The cleanouts along the southern and eastern leachate collection lines were inspected. Only the cleanout a few feet from the sump contained standing water and it was approximately 45-inches below the surrounding existing grade. The liquid level in the sump was approximately 41-inches below the surrounding existing grade. Some barren areas were noted downgradient of the leachate collection lines and the sump.

WDC received a NOV from the City of Creston, Iowa Publicly Owned Treatment Works (Creston POTW) dated August 18, 2008. The NOV described fluoride exceedances for the monthly reporting period and also exceedances for daily maximum flow. WDC responded to the NOV with a letter dated September 2, 2008. Per WDC, the last fluoride exceedance (30-day average) was documented in a July 2010 e-mail from the Creston POTW to WDC. The fine for the July 2010 exceedance was paid in August 2010. WDC continues to work with the Creston POTW to manage leachate discharge volumes. Per WDC, the existing Creston POTW agreement remains in force.

A Temporary Supplemental Agreement for Wastewater Services was issued to WDC by the City of Creston in September 2023. The Agreement is dated September 5, 2023, and was executed by WDC. It states WDC shall conduct additional leachate sampling during and after the landfill closure construction. WDC has been sampling and reporting to the City accordingly during construction.

Barren areas continue to be observed along the southern side slopes and the perimeter flats downgradient of the side slopes. Most of the other site areas were disturbed during construction. In general, the loss of topsoil and seed stock due to ongoing erosion and sedimentation has resulted in limited vegetative growth in the barren areas noted. Otherwise, vegetative growth was viable where present. The site will be seeded after construction for restoration and the barren areas will be vegetated.

The localized seep previously observed at the south/southwest perimeter was repaired on April 5 and 6, 2007 in general accordance with past permit requirements. The certification of repair was submitted by WDC to IDNR on April 26, 2007. The repaired area and previously impacted downgradient areas were dressed with topsoil/soil. The areas were seeded and mulched, but vegetation was not established.

WDC received a Notice of Violation (NOV) from IDNR dated October 18, 2007. The NOV required repairs to correct cover issues relating to erosion and lack of vegetation. The NOV also required repairs to eliminate seepage near the sump. WDC submitted a plan of action to IDNR on January 29, 2008, as specified in the NOV. Per the NOV, completion of the proposed repairs and improvements were to be completed by June 15, 2008. WDC notified IDNR via e-mails on June 24, 2008, and July 21, 2008, that the proposed earthwork and seeding specified in the plan had been completed. Per WDC, seeding to establish vegetation was completed in July 2008, but substantial rains after the seeding limited growth. The IDNR acknowledged WDC's progress in its October 7, 2008 Inspection Report. (In August/September 2011, WDC completed earthwork activities to improve the existing cover system. Per WDC, seeding and mulching were completed shortly after the earthwork activities; however, vegetation was not fully established.)

WDC received a NOV from IDNR dated June 28, 2010, regarding unauthorized discharges to surface water from landfill seeps. WDC responded to IDNR in a letter dated July 14, 2010, that a new leachate pump had been installed and a new discharge schedule had been established to prevent further releases. WDC submitted a follow-up report to IDNR on October 14, 2010.

Reference should be made to the 2023 Leachate Control System Performance Evaluation Report regarding the effectiveness of the leachate collection system.

- (4) The working waste management areas (top plateaus) were sloped slightly to the east/southeast (approximately 5-10 percent grade). Material was excavated from the working areas for permitted beneficial use at off-site facilities before construction began. Perimeter berms of topsoil/soil/waste have been constructed to the east and south of the waste management areas to contain surface water runoff to the extent practicable, without excess ponding. These berms are approximately 5-10 feet high. Ponding was not observed during the inspection.

Dusting was not observed during construction but has been previously observed from the work areas, access road, and barren side slopes and should be controlled by the vegetated landfill cap after construction is complete.

- (5) Landfill operations do not involve the removal of trees or the elimination of water sources. Therefore, potential impacts to the Indiana bat habitat are not applicable. The construction project removed a small area of small trees and brush in the borrow area adjacent to the landfill.
- (6) Item considered "Not Applicable" given the landfill is an industrial, captive landfill which previously accepted non-municipal waste. No waste will be accepted in the future and the landfill will be capped and closed.
- (7) The primary access road to the waste placement areas requires maintenance/improvement due to an accumulation of fines from ongoing site operations. The drag out of fines onto the plant pavement, beyond the landfill entrance, was also noted. The placement of a gravel wearing course, preferably on a geotextile base, is recommended. This will reduce previously observed dusting from wind combined with vehicle traffic. Roads are in general accordance with plans.
- (8) Matt Thelen is the current certified landfill operator for WDC (Certificate No. 30872, originally issued April 15, 2011, renewal expires June 30, 2026.)

- (9) The access gate from the plant to the landfill and the associated fencing has been replaced and are in good condition. Access to the landfill from outside the facility is controlled by the main security gate, which is locked when not in use and under guard.
- (10) Foundry sand was noted in up gradient portions of the perimeter channels and in some downgradient slope/flat locations. See Observation Note No. 4 for additional information.
- (11) Current on-site borrow material quantities have been evaluated based on a site survey completed in October 2020; the results of the survey were presented in the landfill permit renewal application submitted in June 2021. Winter and wet weather operations do not normally involve borrow cover materials and will not in the future since the landfill will be capped and closed.
- (12) The landfill did not reach the planned finished surface elevations. WDC, per discussions with IDNR, moved forward with landfill closure despite not reaching the proposed finished surface elevations. The proposed closure will be very similar to the previously proposed closure but will have slightly adjusted elevations per the Contractor's final waste grading. During construction the Contractor completed final waste grading before capping the landfill.
- (13) According to WDC, a clean out of the leachate collection tank was performed in 2004 and the tank has been periodically cleaned by WDC personnel since that date. In addition, WDC personnel periodically flush the transfer line from the plant building to the leachate collection sump to clean the line and remove sediment buildup. This was performed in August 2023. The leachate collection piping along the eastern and southern perimeters of the landfill was last cleaned in July 2023. This piping is typically cleaned with conventional pipe cleaning equipment. WDC is considering adding an access manhole and replacing approximately half of the collection piping to ease future cleaning and reduce bends in the piping.
- (14) Available information (March 8, 2004; July 17, 2005; August 1, 2007; February 4, 2011; March 26, 2014, March 30, 2016, June 13, 2018, April 7, 2020, February 17, 2022, and March 21, 2024 surveys) indicates development proceeding generally within Phase I/II Development Plans. Waste exhumation activities were less than anticipated in 2023 and 2024. WDC, per discussions with IDNR, moved forward with landfill closure despite not reaching the proposed finished surface elevations. The proposed closure will be very similar to the previously proposed closure but will have slightly adjusted elevations per the Contractor's final waste grading. During construction the Contractor completed final waste grading before capping the landfill.

FIELD OBSERVATIONS BY Bob Roach DATE 9/18/24
OFFICE REVIEW BY Cheryl Bennett DATE 10-15-24

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Robert J. Roach Date 10/15/24

Robert J. Roach
Senior Project Engineer

License
Number

P27705

My renewal date is

12/31/25

