

October 21, 2024

Brian L. Rath, P.E.
Environmental Engineer Senior
IDNR – Land Quality Bureau
6200 Park Avenue, Suite 200
Des Moines, Iowa 50321



**RE: SEMI-ANNUAL INSPECTION – FALL, 2024
CEDAR RAPIDS WPCF ASH MONOFILL
IDNR PERMIT #57-SDP-07-85P
HLW PN 3422-24A.750**

Dear Mr. Rath:

In accordance with the General Provisions of the SDP Permit dated October 29, 2021, a semi-annual inspection of the Cedar Rapids WPCF Ash Monofill was personally conducted the morning of October 7, 2024. Jason Decker, Environmental & Compliance Program Manager with the City of Cedar Rapids, accompanied me on the inspection. Conditions at the time of the inspection were clear with light winds and temperatures in the 50's.

The monofill consists of two approved ash sludge disposal areas: the South Disposal Area and the North Disposal Area. Ash was historically excavated and disposed of during scheduled WPCF incinerator shutdowns; however, with the presence of two lined disposal areas ash disposal is no longer limited to the scheduled incinerator shutdowns which allows staff flexibility in scheduling ash removal operations.

The South Disposal Area was placed into operation on April 23, 2012. The North Disposal Area was approved for ash disposal in Permit Amendment #2 dated November 15, 2016.

As per WPCF staff, since the beginning of 2023 ash disposal has been directed into the disposal areas as follows:

- North Disposal Area from October 10, 2022 to March 8, 2023.
- South Disposal Area from March 8, 2023 to May 12, 2023.
- North Disposal Area from May 12, 2023 to August 14, 2023.
- South Disposal Area from August 14, 2023 to August 16, 2023.
- North Disposal Area from August 16, 2023 to August 23, 2023.
- South Disposal Area from August 23, 2023 to November 15, 2023
- North Disposal Area from November 15, 2023 to May 10, 2024
- South Disposal Area from May 10, 2024 to July 16, 2024
- North Disposal Area from July 16, 2024 to present.

Approximately 761 dry tons of ash were removed from the North Disposal Area during the last sludge removal event in May and June, 2024. Mr. Decker reported that ash will be removed from both disposal areas this fall.

HLW Engineering Group, 204 West Broad Street, P.O. Box 314, Story City, Iowa 50248
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Dewatered ash is hauled to the Lee Crawford Quarry for beneficial use under Beneficial Use Determination (BUD) Authorization No. 57-BUD-23-97. This BUD is effective through January 2, 2027. Adequate capacity remains in the North and South Disposal Areas for current operations.

Status of the Permit

The Sanitary Disposal Project Permit for the Cedar Rapids WPCF Ash Monofill was renewed on October 29, 2021 and expires on October 29, 2024. The site has received the following permit amendments to date:

- Permit Amendment #1, April 20, 2022, authorized that the frequency of groundwater level measurements be reduced from quarterly to semi-annually.
- Permit Revision #2, May 17, 2024, approved the request to construct the North 2 Lagoon and remove the South Disposal Area.

Permit renewal documentation was submitted to IDNR on July 14, 2024 (Doc #110268).

Annual Water Quality Report

The 2023 Annual Water Quality Report (AWQR) was submitted to IDNR on December 21, 2023 (Doc #108495). IDNR comments on the 2023 AWQR were received on July 22, 2024. No response was required.

Monitoring Well Maintenance Performance Reevaluation Plan

The most recent Monitoring Well Maintenance Performance Reevaluation Plan (MWMPRP) was included in the 2019 AWQR submitted to IDNR on November 15, 2019 (Doc #96348). The Plan recommended no significant modifications to the Hydrologic Monitoring System Plan or site monitoring wells. As per IDNR Regulations, the MWMPRP is required every 5 years and will be provided in the 2024 AWQR.

Financial Assurance

2024 Financial Assurance documentation was submitted to IDNR on April 17, 2024 (Doc #109851) and approved by IDNR on April 17, 2024.

Special Provisions of the SDP Permit

1. The permit holder is authorized to accept sewage sludge incinerator ash slurry from the Cedar Rapids WPCF for storage and dewatering prior to disposal.
2.
 - a) No changes.
 - b) Results from TCLP testing of the ash in accordance with this provision were

included in the 2024 SDP Permit Renewal documentation submitted to IDNR on July 14, 2024 (Doc #110268). TCLP test results for the ash are also submitted to IDNR in accordance with the BUD Authorization.

c)-j) No changes.

3. No changes.
4. No changes.
5. No changes.
6. No changes.
7. No changes.

Based on observations during the inspection, along with discussions with Mr. Decker, the facility appears to be in general conformance with the SDP Permit.

Additional Comments

Work on the new North 2 Disposal area has not started. Mr. Decker reported that a groundbreaking for the project that includes construction of the North 2 Disposal area as well as removal of the South Disposal Area is scheduled for November 1, 2024.

Weedy growth was noted on the perimeter of the South Disposal Area as well as on some of the dewatered ash in the South Disposal Area. Since this area will be removed the weeds should not be addressed to avoid possible liner damage with ash still in the disposal area.

IDNR Field Office #1 completed an inspection of the site on September 10, 2024. The report contained no requirements and stated that "This facility appears to be operated in general compliance with its permit and departmental rules."

Leachate lines were cleaned in July (North Disposal Area) and September (South Disposal Area) of this year. As per the 3 year cleaning frequency required by IDNR the lines should be cleaned in 2027.

As reported in past AWQR's, elevated levels in the leachate head monitoring point in the North Disposal Area have historically been recorded. All measurements in the leachate head monitoring point in 2024 with the exception of the measurement on February 1, 2024 (1.1' recorded). The response to the elevated measurement in February was discussed in the Spring, 2024 inspection report (Doc #109598). The 2022-2024 measurements are attached.

All measurements in the leachate head monitoring point in the South Disposal Area in 2024 to date have been less than 12" (2022-2024 measurements attached).

All measurements in the groundwater head monitoring point in the South Disposal Area in 2024 to date have been less than 12" (2022-2024 measurements attached). Note that groundwater

collected by the groundwater diversion system under the South Disposal Area is combined with the leachate from the North and South Disposal Areas and conveyed to the WPCF for treatment and disposal.

Recommendations

1. HLW will include discussion on levels in the leachate head monitoring points in the North and South Disposal Areas and the groundwater head monitoring point in the South Disposal Area in the 2024 AWQR.
2. Continue operations in accordance with the SDP Permit.



cc: Jason Decker, Utilities Environmental & Compliance Program Manager, Cedar Rapids WPCF (electronic copy)

Ash Lagoon Underdrain Level Measurements
City of Cedar Rapids Water Pollution Control Facilities

Date	Time	South Ash Lagoon			North Ash Lagoon Leachate
		Ground Water	Collection Pipe	Drainage Media	
1/24/2022	1:35	1.5'	<1'	<1'	3.5'
2/25/2022	10:45	1.5'	<1'	<1'	3.5'
3/30/2022	1:25	2.0'	<1'	<1'	3.0'
4/26/2022	3:00	1.5'	<1'	<1'	4.0'
5/27/2022	8:14	1'	<1'	<1'	1.9'
6/27/2022	8:10	1.5'	<1'	<1'	3.0'
7/29/2022	8:21	2.0'	<1'	<1'	3.2'
8/26/2022	10:04	2.5'	<1'	<1'	3.5'
9/26/2022	9:02	1.7	<1'	<1'	2.2
10/17/2022	8:35	1.5'	<1'	<1'	2.0
11/3/2022	10:00	1.5'	<1'	<1'	2.0
12/1/2022	10:30	0.8'	<1'	<1'	1.0
1/5/2023	15:52	--	--	--	0.6
1/6/2023	8:12	0.4'	<1'	<1'	--
2/1/2023	11:28	0.3'	<1'	<1'	0.6
3/1/2023	8:18	0.4'	<1'	<1'	0.7'
4/3/2023	8:25	0.4'	0.3'	0.3'	0.7'
5/1/2023	8:47	0.4'	0.3'	0.3'	0.8'
6/1/2023	9:23	0.4'	0.2'	0.2'	0.8'
7/3/2023	8:47	0.8'	0.2'	0.2'	0.9'
8/1/2023	8:25	0.9'	0.1'	0.1'	1.0'
9/1/2023	9:03	0.8'	0.3'	0.3'	0.9'
10/2/2023	8:48	0.8'	0.4'	0.4'	0.9'
11/1/2023	8:59	0.9'	0.4'	0.4'	1.0'
12/1/2023	10:56	0.9'	0.4'	0.4'	1.0'
1/2/2024	8:59	0.9'	0.4'	0.4'	0.8'
2/1/2024	14:40	0.2'	0.3'	0.3'	1.1'
2/14/2024	10:07	n/a	n/a	n/a	1.1'
2/15/2024		n/a	n/a	n/a	0.4'
2/29/2024	13:45	n/a	n/a	n/a	0.5'
3/1/2024	8:42	0.3'	0.2'	0.2'	0.5'
3/8/2024	15:05	n/a	n/a	n/a	0.5'
3/24/2024	10:40	n/a	n/a	n/a	0.5'
4/1/2024	10:29	0.6'	0.5'	0.5'	0.6'
5/1/2024	9:48	0.5'	0.4'	0.4'	0.8'
6/5/2024	8:24	0.4'	0.3'	0.3'	0.6'
7/1/2024	9:06	0.5'	0.4'	0.4'	0.6'
8/1/2024	11:42	0.4'	0.3'	0.3'	n/a
8/7/2024	12:17	n/a	n/a	n/a	0.8'
9/5/2024	10:11	0.9'	0.4'	0.4'	0.9'
10/1/2024	8:26	0.9	0.5'	0.5'	0.8'