

May 2, 2025

TODD HORCHEM
MIDAMERICAN ENERGY COMPANY
LOUISA GENERATION STATION
8602 172ND STREET
MUSCATINE IA 52761

RE: MidAmerican Energy Company – Louisa Generation Station Coal Combustion Residue (CCR) East Monofill
Permit No. 70-SDP-16-04P
Permit Revision #10

Dear Mr. Horchem:

Enclosed is the revised permit for the above-referenced facility. The permit and the approved plans must be kept at the sanitary disposal project. Please review the permit in its entirety with your operators, as they must become familiar with it. The revised permit approves the construction of Cell 4.

Note that the permit may contain conditions that require a response or action by you, which if not properly complied with, may prompt enforcement action by the Iowa Department of Natural Resources.

If you have any questions, you may contact me at [\(515\) 537-4051](tel:5155374051) or brian.rath@dnr.iowa.gov.

Sincerely,

Brian L. Rath, P.E.
Environmental Engineer Senior
Land Quality Bureau

copy: Michael J. Alowitz, P.E.
Justin Simon, P.E.
GHD Services Inc.
11228 Aurora Avenue
Des Moines, Iowa 50322-7905

Joshua Love
MidAmerican Energy Company
4101 Northwest Urbandale Drive
Urbandale, Iowa 50322

DNR Field Office #6 – Washington, Iowa

Brian Harthun, P.E.

Foth Infrastructure & Environment, LLC

3950 River Ridge Dr NE, Suite A

Cedar Rapids, Iowa 52402

IOWA DEPARTMENT OF NATURAL RESOURCES
SANITARY DISPOSAL PROJECT PERMIT

- I. Permit Number: 70-SDP-16-04P
- II. Permitted Agency: MidAmerican Energy Company -Louisa Generation Station
CCR Monofill
- III. Project Location: South ½ of SW ¼ of Section 33, T76N, R2W, and
NW ¼ of Section 4, T75N, R2W
Muscatine and Louisa Counties
- IV. Responsible Official
- Name: Jeremy Mlekush, General Manager
Address: Louisa Generating Station
8602 172nd Street
Muscatine, IA 52761
Phone: 563-262-2865
FAX: 563-262-2892
- V. Licensed Design Engineer
- Name: Brian Harthun
Address: Foth Infrastructure & Environment, LLC
3950 River Ridge Dr NE, Suite A
Cedar Rapids, IA 52402
Phone: 319-297-2063
FAX: 319-365-9631
- Iowa License Number: 14049
- VI. Date Permit Issued: November 19, 2015
Date Permit Revised: May 2, 2025 Amendment #10
- VII. Permit Expiration Date: November 19, 2025
- VIII. Issued by: _____
Environmental Services Division
for the Director
- IX. General Provisions

The above named permitted agency is hereby authorized to operate a Coal Combustion Residue (CCR) monofill at the described location in conformance with Iowa Code Chapter 455B, the rules pursuant thereto existing at the time of issuance, and any subsequent new rules which may be duly adopted, and any provisions contained in Section X of this permit.

The project shall be operated according to the engineering plans and specifications approved by the Department of Natural Resources and these shall become a part of this permit. Any modifications or deviations from the engineering plans and specifications must have prior approval by the Department and an amendment to this permit issued.

The issuance of this permit in no way relieves the applicant of the responsibility for complying with all other local, state, and federal statutes, ordinances, and rules or other requirements applicable to the establishment and operation of this CCR monofill.

No legal or financial responsibility arising from the construction or operation of the approved project shall attach to the State of Iowa or the Department of Natural Resources due to the issuance of this permit.

If title to this project is transferred, the new owner must apply to the Department for a transfer of this permit within thirty days of the date of title transfer. This permit is void sixty days after the date of title transfer unless the Department has transferred the permit.

In accordance with Iowa Code section 455B.310, the permit holder is exempted from solid waste tonnage fees for CCR disposal at the permitted monofill. This exemption does not relieve the permit holder from the tonnage reporting requirements listed below.

The permit holder shall file a quarterly Fee-Exempt Material Quarterly Report utilizing the Department's Form 542-3276FE for all wastes received, recycled/reused, and disposed at the CCR landfill in accordance with Iowa Code section 455B.310.

The Fee-Exempt Material Quarterly Reports will be due January 1, April 1, July 1 and October 1 for the quarters ending September 30, December 31, March 31 and June 30, respectively. The permit holder shall mail the completed form to the Solid Waste Section, Wallace State Office Building, 502 East Ninth Street, Des Moines, Iowa 50319. This reporting procedure supersedes any previous conflicting permit provisions.

CCR disposed at this site shall not exhibit free liquids, toxic or hazardous properties. No hazardous wastes as defined by Iowa Code section 455B.411 may be disposed at this landfill.

Failure to comply with Iowa Code Chapter 455B, or any rule of order promulgated pursuant thereto, or any or all provisions of this permit may result in 1) a civil penalty of up to \$5000 for each day of violation, pursuant to Iowa Code section 455B.307, or 2) the suspension or revocation of this permit, pursuant to Iowa Code section 455B.305.

X. Special Provisions

1. The permit holder is authorized to accept Coal Combustion Residue for disposal at this facility.

The permitted monofill is limited to CCR generated at Louisa and Riverside Generation Stations in accordance with the provisions of this permit; and the following:

- a. In accordance with the request dated October 26, 2015, the permit holder is authorized to accept coal, coal fines, and soil mixed with coal fines/coal for disposal from the Riverside Generating Station coal pile clean-up project, on a one time basis, scheduled for November and December, 2015. The permit holder shall notify the Department of any schedule changes and when the project has been completed. (Amendment #1)
- b. In accordance with the *Permit Amendment Request*, dated October 12, 2016 (Doc DNA#87366), as submitted by MidAmerican Energy Company and approved on November 10, 2016, the permit holder is authorized to accept approximately 15,000 tons of coal, coal fines, and some soil for disposal from the Riverside Generating Station (RGS) coal pile clean-up project, scheduled for November through December 2016. (Amendment #1)

The permit holder shall notify the Department of any quantity or schedule changes and when the project has been completed.

The amount of coal, coal fines, and soil mixed with coal fines/coal for disposal shall be reported on the tonnage fee report and in the byproduct management plan for the facility.

- c. In accordance with the correspondence dated January 4, 2018, the permit holder is authorized to dispose of mill pyrites and small amounts of coal during periods of maintenance and cleaning out the coal mills, which are tied to the recently installed dry bottom ash drag chain system. (Amendment #5)

All material placed in the monofill shall continue to be weighed on a certified scale and will be documented in the quarterly fee exempt reports submitted to the department.

2. The permit holder shall develop and operate the site in accordance with the Operating Permit Renewal Application, dated July 2014, as submitted by MWH Americas, Inc. (MWH), and approved on November 19, 2015; and the following:
 - a. The approved site shall not exceed a maximum waste elevation of 658 feet in the vicinity as shown on Drawing No. D2 of the approved permit application.
 - b. The approved site operation for disposal is limited to the existing CCR Monofill footprint as shown on Figure 2 of the approved permit application.
 - c. The *Permit Modification Request*, dated July 2017, for the lateral expansion of the CCR Monofill with the construction of composite-lined cells (Cell 1 through Cell 8), as submitted by Foth Infrastructure & Environment, LLC (Foth), is approved.

The permit holder is authorized to construct Cell 4 as provided via e-mail on April 17, 2025. Construction shall be in accordance with the *Cell 4 Construction* request, dated July 29, 2024, the *Cell 4 Geosynthetic Clay Liner Construction* modifications, dated

January 21, 2025, and the associated *Alternative Composite Liner Equivalency*, dated April 3, 2025, all as submitted by GHD. (Amendment #10)

Prior to waste disposal in Cell 4, the Department shall be notified and the site inspected when the initial construction of the leachate control system has been completed. Before the inspection, construction certification reports shall be submitted to the Department. Waste placement will not be authorized until all monitoring points are installed in accordance with the approved HMSP.

Deviations from the approved plans and specifications shall be approved by the Department prior to their construction. Any further construction beyond this area shall require prior Department approval. No waste disposal shall commence in this expansion until the construction certification report has been submitted and the cell has been inspected and approved by the Department.

- d. The permit holder shall maintain a method of CCR transportation that prevents blowing CCR and a method for controlling dust and air emissions when the CCR is unloaded pursuant to fugitive dust standards.
- e. The permit holder shall hydrate the CCR, as necessary, for controlling blowing dust and air emissions from the working face. On windy days, the unloading operations shall be halted until wind conditions allow resumption of controlled disposal activities.
- f. The permit holder shall adequately hydrate the disposed CCR for the purpose of generating a protective concrete-like crust cover. Water or leachate may be added to the CCR for hydration, solidification and dust control purposes. If the crust is not effective in controlling the erosion or dust emissions, then the CCR must be covered after each day of operation with at least a six-inch layer of compacted earth.
- g. Soil cover shall be placed and vegetated, as necessary. Erosion shall be controlled at all times.
- h. The active work face area shall be kept to a minimum and shall be smoothed out and compacted to promote drainage of precipitation while reducing erosion and infiltration.
- i. The review letter, dated September 19, 2003, from the Department's Conservation and Recreation Division relative to the comprehensive listing of plant and animal species, for all development and soil borrow areas, is incorporated as part of the permit documents. The permit holder shall heed the comments relative to disturbing the Indiana bat summer habitat.
- j. The review letter, dated August 13, 2003, from the State Historical Society relative to the determination of the presence of and assessment of the impact on any archaeological, historical, or architecturally significant properties for all development and soil borrow areas on the proposed site, is incorporated as part of the permit documents. The permit holder shall heed the comments provided in the August 22,

2003 letter from Colleen Eck, Site Records Manager of the Office of the State Archaeologist.

- k. The *Construction Quality Assurance Report – Cell 1 Liner and Leachate Lagoon*, dated September 2018, as submitted by Foth Infrastructure & Environment, LLC (Foth), as approved on October 10, 2018, is incorporated as part of the permit documents. (Amendment #6)

The permit holder is authorized to initiate placement of coal combustion residue wastes in Cell 1.

- l. The *Construction Quality Assurance Report – Cell 2 and Cell 3*, dated January 20, 2020, as submitted by Foth, as approved on March 9, 2020, is approved and incorporated as part of the permit documents.

The permit holder is authorized to initiate placement of coal combustion residue wastes in Cell 2 and Cell 3. (Amendment #8)

3. Surface water shall be diverted around the fill area and surface drainage shall be provided at the toe of the working face.
4. An all-weather fill area accessible during all weather conditions under which CCR is received and disposed at the site shall be provided at all times.
5. Hydrologic monitoring at the site shall be conducted in accordance with the Hydrologic Monitoring System Plan (HMSP) as included in the Appendix 5 of the approved permit application, as submitted by MWH, as approved on November 19, 2015; and the HMSP for Cell 1 of the CCR Expansion Monofill, as included as Appendix G of the *Permit Modification Request*, dated July 2017, as submitted by Foth Infrastructure & Environment, LLC (Foth); and the following:
 - a. The HMSP for the existing (closed) CCR Monofill shall include upgradient groundwater monitoring points MW-3 and MW-4; and downgradient groundwater monitoring points MW-17R, MW-18A, MW-20A, MW-21, and MW-22.

The HMSP for the expansion shall include background groundwater monitoring points MW-213A and MW-221A; and downgradient groundwater monitoring points MW-230, MW-231, MW-232, MW-233, and MW-234.

- b. Monitoring points not retained for groundwater analysis may be retained as water level measuring points.
- c. Department construction documentation form 542-1277 and boring logs for all monitoring wells and piezometers shall be submitted within 30 days of installation.

Department construction documentation form 542-1323 shall be submitted within 30 days of establishing surface water monitoring points.

Abandonment of any monitoring point requires prior approval by the Department. The permit holder is authorized to properly plug and abandon water level gauging points not proposed for water quality analysis. The permit holder shall submit Department Form 542-1226 for the abandonment of each well within 30 days of abandonment.

The documentation forms for the abandonment of monitoring points MW-05, MW-18B, and MW-19B, all dated September 2004; as submitted by MWH, are incorporated as part of the permit documents.

The documentation forms for the abandonment of monitoring points MW-17 and MW-19, both dated March 2005; as submitted by MWH, are incorporated as part of the permit documents.

- d. In accordance with the variance, dated December 6, 2016, the permit holder is authorized to conduct sampling and analysis of total recoverable metals, in lieu of sampling for dissolved metals as required by 567 IAC 103.1(2)"f". (Amendment #2)

In addition, the permit holder is authorized to utilize the analytical parameters, monitoring frequencies, and statistical analysis procedures listed in 40 CFR Part 257 in lieu of (567 IAC 103.1(2)"f" and 103.1(4)"d".

Initial baseline sampling of monitoring points MW17R, MW18A, MW19B, and MW20A, was conducted in September of 2003.

- e. The elevation of water in each monitoring well shall be measured and recorded during each sampling event.
- f. The Method Detection Limit (MDL) for the test parameters shall not exceed action levels as defined by any primary or secondary Maximum Contamination Level (MCL) or the Health Advisory Level (HAL) of the Drinking Water Standards and Health Advisories of the Federal Environmental Protection Agency.
- g. Surface monitoring points must be clearly marked in the field and a method for measuring the flow rate at each sampling point shall be devised.
- h. An Annual Water Quality Report (AWQR) summarizing the effects the facility is having on groundwater and surface water quality shall be submitted to the Department by January 31 each year. This report shall be prepared in accordance with 40 CFR Part 257. The AWQR shall include the results of the groundwater measurements and the routine groundwater analyses conducted at the monitoring points and results of all groundwater sampling analysis. (Amendment #4; Change submittal date to January 31)

6. The permit holder is responsible to perform Toxicity Characteristic Leaching Procedure (TCLP) testing, as necessary, for any future new waste type additions and process modifications resulting in waste type and characteristic changes from that defined in the original application. New waste type and process modification descriptions and supporting TCLP test results shall be submitted to the Department's Main and Field offices and approved prior to disposal.
7. The permit holder is not required to monitor and report methane gas, however, if the waste stream is modified to include organic materials which may produce methane during degradation the department may require methane gas monitoring and reporting.
8. The permit holder shall provide on-site scale facilities for the purposes of weighing and reporting solid wastes disposed of at the landfill. If conditions are such that make it impractical to provide an on-site scale, then off-site scale facilities or an alternative method to weighing may be used if justified and approved by the Department. The permit holder shall comply with the waste weighing, record keeping and tonnage fee reporting requirements defined in 567 IAC 101.9(455B,455D). The scale weighing facilities shall comply with the certification and licensing requirements of the Iowa Department of Agriculture and Land Stewardship. Certification shall be maintained current at all times. The permit holder shall submit a copy of the weighing scale facility licensing certificate issued by the Iowa Department of Agriculture and Land Stewardship and a copy of renewals shall be provided to the Department's Main and local Field offices.
9. The Emergency Response and Remedial Action Plan (ERRAP), as included in Appendix J of the *Permit Modification Request*, dated July 2017, as submitted by Foth, in compliance with 567 IAC 103.2(455B), is approved. An updated ERRAP shall be submitted at the time of each permit renewal application. An updated ERRAP shall be included with any request for permit modification to incorporate a facility expansion or significant changes in facility operation that require modification of the currently approved ERRAP.
10. The permit holder shall close the CCR monofill in accordance with the Closure and Postclosure Requirements, as included in Section 5 of the approved permit application submitted by MWH, and the following:
 - a. The permit holder is encouraged to obtain a review from the County Soil & Water Conservation District to assist in maintaining compliance with wind and soil loss limit regulations for the approved development area.
 - b. The permit holder is encouraged to obtain a source of soil for the final cover requirements as soon as possible. The permit holder shall have identified to the Department and obtained this source by no later than 180 days prior to closure.
 - c. The Construction and Documentation Report for the *Partial Final Monofill Capping Project*, dated January 19, 2017, as submitted by Foth Infrastructure & Environment,

LLC (Foth), and approved on July 25, 2017, is incorporated as part of the permit documents. (Amendment #3)

The report documents partial capping of the west edge of the site as shown on Sheet C05.

- d. The *Phase 2 Partial Final Monofill Capping*, dated May 22, 2017, as submitted by Foth and approved on July 25, 2017, is incorporated as part of the permit documents. (Amendment #3)
- e. The Construction and Documentation Report for the *2017 Partial Final Monofill Capping Project*, dated December 18, 2017, as submitted by Foth is, approved and incorporated as part of the permit documents. (Amendment #5)
- f. In accordance with the variance, dated January 10, 2018, the permit holder is authorized to construct an alternate final cover system at the site which consists of a 6-inch infiltration layer; overlain by a 60 mil textured high density polyethylene (HDPE) geomembrane layer; overlain by a drainage composite; and covered with a 12-inch erosion layer. (Amendment #5)

Any modifications of the authorized final cover system will require prior approval from the Department.

- g. The *Phase 3 Final Monofill Capping*, dated April 30, 2020, as submitted by Foth Infrastructure & Environment, LLC. , is hereby, incorporated as part of the permit documents. (Amendment #9)

XI. Permit Renewal and Revision History

Date	Comment
5/2/2025	Permit Revision No. 10, Special Provision No. 2.c, approval to construct Cell 4.