



# CCP Annual Inspection Report

Brickhaven No. 2 Mine Tract A Structural Fill  
DWM Permit 1910, DEMLR Permit 19-25

Charah, Inc.

*Moncure, North Carolina*  
February 2022



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# Introduction

This report summarizes the findings for the annual inspection conducted on January 19, 2022, of the Brickhaven No.2 Mine Tract “A” structural fill located off Moncure-Flatwood Road in Chatham County, North Carolina. The site is owned by Green Meadow, LLC and operated by Charah, Inc. under North Carolina Department of Environmental Quality (NCDEQ) Division of Waste Management (DWM) Structural Fill Permit 1910 issued June 5, 2015, in conjunction with the NCDEQ Division of Energy, Mineral and Land Resources (NCDEMLR) Mining Permit 19-25 also issued June 5, 2015. The Brickhaven No. 2 Mine Tract “A” structural fill project has been permitted and constructed in accordance with the North Carolina Coal Ash Management Act of 2014 (CAMA) and NCDEQ structural fill rules. The structural fill ceased receiving coal combustion products (CCP) on July 11, 2019, and it was capped with a composite liner system as approved by NCDEQ in the Closure Plan. A closure certification was submitted and approved by NCDEQ on April 7, 2021.

# Inspection Report

The goal of this inspection is to ensure the design, construction, and maintenance of the structural fill unit is consistent with recognized good engineering practices and a detailed level of engineering analysis is applied to evaluate existing conditions. This inspection includes the following.

- A discussion of the findings and remedies for any issues found in the document review.
- A discussion of the findings and remedies for any issues found in the site inspection.
- Any appearance of an actual or potential structural weakness of the CCP unit.
- Any existing conditions that are disrupting, or have the potential to disrupt, the operation and safety of the CCP unit.

The inspection report below discusses the document and visual inspection review.

# Document Review

HDR performed a cursory review of the available permit documents, as well as Charah’s adherence to required recordkeeping. Operating Record documents include the following.

## Permit Documents

- NCDEQ structural fill permit and modification(s)
- NCDEQ mine permit and modification(s)
- Construction Certifications
- Erosion control permit and modification(s)
- Erosion control plans
- NPDES permit
- Leachate discharge permit
- Leachate pump and haul permit
- Waterline permit

- NCDEQ inspection reports
- Stormwater pollution prevention plan

## Operational Documents

- Operations plan
- Safety reports
- Groundwater reports
- Leachate collection and discharge records
- Leachate analysis reports
- Site inspection (weekly) reports
- CCP tonnage reports
- CCP source analysis reports
- Compaction test reports
- Topographic surveys
- As-built drawings
- Training records for the qualified person(s) performing the weekly inspections
- Records/receipts for all (liner, leachate, and groundwater) system repairs
- Incident reports (safety, delivery of non-CCP materials, spills, etc.)
- Documentation of cover placement

Weekly inspections were performed and documented by site personnel regarding operations, safety, maintenance of the groundwater wells, run-on and run-off controls, wind dispersal control systems, liner systems, and leachate collection systems. Where deficiencies were identified follow up corrective actions were also documented. Review of the above documents did not reveal any indications of operation or safety concerns regarding the CCP structural fill.

## Visual Site Inspection

A visual inspection, conducted on January 19, 2022, of the CCP structural fill was performed to identify signs of distress, malfunction, or threats to safety not identified in the document review or weekly inspection records. The weather during the site visit was sunny with an approximate temperature of 70 degrees Fahrenheit. This inspection was limited to the CCP structural fill, stormwater control devices and leachate systems. This does not address other site operations such as the rail unloading area. Filling activities ceased in July 2019 and closure capping began.

The site inspection included an evaluation of the following site features.

1. Structural fill access
2. Leachate management system
3. Stormwater segregation and erosion control
4. Structural fill visual stability

## Structural Fill Access

Automobile access to the facility is from Moncure-Flatwood Road, which is controlled by a gate requiring check in and check out of visitors. CCP arrived via railroad and was unloaded onto off-road dump trucks. This area was not reviewed as ash is no longer being received at the site. The site has a stone access road that wraps around the perimeter of the site. The structural fill has two access ramps, one in the northeast corner and the other in the southwest corner, which is connected by a grave road across the top deck area.

## Leachate Management

The leachate management system for the structural fill includes a series of perforated High-Density Polyethylene (HDPE) pipes within the lined area that drain to either a sump in Cell 1 or a sump in Cell 6. Both sumps have two pumps installed to pump leachate to three onsite storage tanks. Neither sump was pumping to the tanks at the time of the inspection. The Cell 1 sump panel reported leachate levels at 1.16 ft and 11.5 ft. These readings are consistent with the previous annual inspection and the on-site staff indicated the need to calibrate the Level 2 reading sensor. The configuration of the sump area is an H shape, and the two sensors are approximately eight feet apart with piping connecting the two HDPE riser pipes. This confirms that the level sensors need to be recalibrated. The Cell 6 sump was not actively pumping as the liquid level in the sump was below the start elevation.

The leachate enclosures and tanks exhibited no signs of leakage at the time of the inspection. The leachate tanks contained leachate and were actively being drained into tanker trucks for transportation to one of the approved disposal locations.

## Stormwater Segregation and Erosion Control

At the time of this inspection, Charah had converted Sediment Basins 1, 2 and 7 into stormwater retention ponds as directed by NCDEMLR for final reclamation. The other sediment basins were in the process of being decommissioned. The retention ponds that remained in place were observed to contain stormwater and function properly. Overall, the areas within the structural fill appeared to have adequate vegetation and showed no signs of structural concern. No signs of CCP release were observed.

## Structural Fill Stability

Based on the site inspection, no structural weaknesses were observed in the compacted CCP material.

## Summary

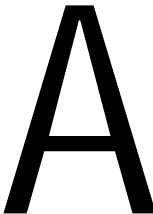
Site staff are performing and maintaining the permit documents and routine maintenance and monitoring reports as required. The following deficiencies in site conditions were identified to Charah staff at the time of inspection:

- Charah needs to recalibrate the Cell 1 sump level sensors.



HDR's review and visual inspection identified no apparent structural weakness in the CCP material placed as a part of the permanent structural fill.



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Appendix A – Site Inspection  
Photographs



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Photo 1



Photo 2



Photo 3



Photo 4



Photo 5



Photo 6



Photo 7



Photo 8



Photo 9



Photo 10



Photo 11



Photo 12





Photo 13



Photo 14



Photo 15



Photo 16





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