

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)	
)	AS 2021-001
Midwest Generation, LLC’s Petition for)	
an Adjusted Standard and Finding of)	
Inapplicability from 35 Ill. Adm.)	
Code 845 (Joliet 29 Station))	
)	

To: See attached service list.

NOTICE OF ELECTRONIC FILING

PLEASE TAKE NOTICE that I have today filed with the Office of the Clerk of the Pollution Control Board an **ILLINOIS EPA’S RESPONSES TO BOARD QUESTIONS** on behalf of the Illinois Environmental Protection Agency, a copy of which is herewith served upon you.

Respectfully submitted,

Dated: July 8, 2022,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY,

Stefanie N. Diers
Division of Legal Counsel
Illinois Environmental Protection Agency
1021 North Grand Avenue East
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Respondent,

BY: /s/Stefanie N. Diers
Stefanie N. Diers

THIS FILING IS SUBMITTED ELECTRONICALLY

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ILLINOIS EPA'S RESPONSES TO BOARD QUESTIONS

NOW COMES the ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, ("Illinois EPA" or "Agency") by and through its counsel, and submits the following responses to the Board Questions in the above captioned case:

1. Why is the poz-o-pac liner in Pond 2 more of a concern for groundwater contamination than the poz-o-pac liners in Ponds 1 and 3?

The poz-o-pac in in Pond 2 is not more of a concern than in Ponds 1 and 3. However, in the Agency Recommendation for Ponds 1 and 3, the Agency focused on the question of applicability due to Ponds 1 and 3 containing a de-minimis quantity of CCR. Therefore, the Agency did not do the same extensive search of records that was done with regard to the instant case, where the adjusted standard is for an alternative to the closure by removal requirements. Closure by removal specifically speaks to removal of CCR, CCR residues, containment system components such as liners, contaminated subsoils, impoundment structures and ancillary equipment.

2. Does the poz-o-pac liner pose a threat of CCR groundwater contamination even if the "CCR material" in the liner has been changed in a chemical reaction and physically encapsulated?

Yes. If the poz-o-pac degrades at a later date, then "physically encapsulated" material would be a CCR material left in place. As to chemically changed material, mechanical or chemical weathering processes have the potential to alter the properties of the poz-o-pac.

The FHWA Report Recommendation Exhibit C, Special Considerations and Unresolved Issues states that pozzolanic materials can break down the structure of the poz-o-pac causing geotechnical suitability issues.

Poz-o-pac much like rock and concrete, would need to be crushed to be evaluated for potential contamination. As acceptable methods for testing for metals contamination or leaching are not performed on rock.

If MWG provided chemical analysis and other analytical data demonstrating that the synthetic liner is competent and the subsoils including the poz-o-pac were not contaminated, the Agency would agree that threat of CCR groundwater contamination does not exist.

3. The FHWA Report included in the Agency's February 4, 2022, Recommendation is from 2006, is the Agency aware of any more recent discussion of the poz-o-pac liners or PSB material having problems with structural stability?

The FHWA Report number FHWA-NIH-06-088 was published in 2006 and no modification seems to have been done since then. However, FHWA Report number FHWA-RD-97-148 was last modified on March 8, 2016 (Recommendation, Exhibit C) and provides more detail on poz-o-pac and discusses its use as a pozzolanic stabilized base (PSB) material. The publication in 2006 was the final report and the 2016 was updated information to the 2006 report.

4. The Agency's February 2022 Recommendation on page 20 states, "While a geotextile cushion was installed beneath the HDPE liner, there are other factors that may cause damage to the liner. In addition to overburden stress, liners installed in impoundments that are exposed to sunlight and weather conditions suffer degradation that buried HDPE liners do not." Please comment on whether the Agency has conducted any inspection of the existing HDPE liner that indicates any damage to the liner. If not, please explain the rationale for concluding that the HDPE liner system may be damaged or compromised.

The Agency has not conducted an inspection.

However, the Agency relied on aerial photograph evidence between 2005 and 2020 accessed on or around November 9, 2021 from Google Earth Pro. The aerial photographs reviewed by the Agency showed the white liner material exposed at the top of Pond 2 even when Pond 2 contained water and CCR. The October 2007 and October 2019 Google Earth aerial photographs verified that heavy equipment was used to remove the CCR material. There are large equipment tracks into and out of Pond 2. All aerial photographs reviewed are available on Google Earth as of June 27, 2022.

5. The Agency states that the cobalt analytical results exceed the GWPS of 0.006 mg/L under Section 845.600 at MW-04 as recently as October 22, 2020." 2-4-22 Rec. at 24. However, in Table 2 of Exhibit 11 and Table 1 of Exhibit O, the cobalt measurement for October 22, 2020, does not appear to be in agreement. Table 2 of Exhibit 11 has cobalt measured as 0.0041 mg/L and Table 1 has the measurement for cobalt as 0.0082 mg/L.
- a. Please elaborate on the discrepancy in the data between the two tables.

Table 11 was prepared pursuant to the CCA and included only dissolved metals analytical. Table I of Exhibit O was prepared pursuant to Part 845 and the measurements taken were total metals.

- b. Comment on whether the differences are due to different sample results.

Yes, you would see different sample results because dissolved is filtered in the field or laboratory and total is not filtered at either location.

6. On pages 13 and 14 of the February 2022 Recommendation, the Agency states that beneficial use of CCR for structural fill, foundation backfill, antiskid material, soil stabilization, pavement, or mine subsidence must meet the following requirements: cannot be mixed with hazardous waste before its use, must be tested using method ASTM D3987-85, cannot exceed the Class I GWQS. Further, CCR must also be used “in an engineered application or combined with cement, sand, or water to produce a controlled strength fill material and covered with 12 inches of soil unless infiltration is prevented by the material itself or other cover material.”
- a. Please explain why the treated “CCR material” in the post-o-Pac liner does not fit under the definition of “beneficial Use”.

The liner may have met the “beneficial use” definition when it was first installed years ago. However, the Agency is concerned with the “contaminated” nature of the parent materials used for the Poz-o-Pac with respect to Closure by Removal, including “contaminated subsoils” according to 35 Ill. Admin. Code 845.740(a) as requested in the adjusted standard proceeding by MWG. The Agency is aware that the liner has been exposed to large equipment that may cause damage to the liner and there is also an issue of exceedances of cobalt that calls into the integrity of the liner.

- b. Comment on whether MWG can demonstrate that the use of CCR in poz-o-pac liner is a “beneficial use” outside using the shake test?

MWG could also do a soil analytical, after crushing of the poz-o-pac, to include total recoverable metals with minimum detection limits as defined in 35 Ill. Admin. Code 1100 and limited to constituents found in 35 Ill. Admin. Code 845.600. For each detection of an aforementioned metal, Synthetic Precipitation Leaching Procedure (SPLP) would be analyzed to determine the impact to groundwater and compared to 35 Ill. Admin. Code 845.600 groundwater protection standards.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY,

Dated: July 8, 2022

Stefanie N. Diers
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Respondent,

BY: /s/Stefanie N. Diers
Stefanie N. Diers

CERTIFICATE OF SERVICE

I, the undersigned, on affirmation certify the following:

That I have served the attached **NOTICE OF FILING** and **RESPONSES TO THE BOARD QUESTIONS** by e-mail upon Kristen L. Gale at the e-mail address of kg@nijmanfranzetti.com, upon Susan Franzetti at the e-mail address of sf@nijmanfranzetti.com, Hearing Officer Brad Halloran at brad.halloran@illinois.gov and upon Don Brown at the e-mail address of Don.Brown@illinois.gov.

/s/ Stefanie N. Diers

July 8, 2022

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