

ILLINOIS POLLUTION CONTROL BOARD
September 10, 2020

IN THE MATTER OF:)
)
STANDARDS FOR THE DISPOSAL OF) R20-19
COAL COMBUSTION RESIDUALS IN) (Rulemaking - Land)
SURFACE IMPOUNDMENTS: PROPOSED)
NEW 35 ILL. ADM. CODE 845)

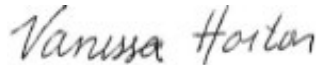
HEARING OFFICER ORDER

On March 30, 2020, the Illinois Environmental Protection Agency (IEPA, or Agency) filed a proposal to add new Part 845 to the Board's waste disposal regulations. The Board adopted IEPA's proposal for first notice under new Part 845 without commenting on the substantive merits of the proposal. The first hearing in the matter was held August 11, 12, 13 and 25, 2020. The hearing officer scheduled second hearing in this proceeding beginning on September 29, 2020, with prefiling deadlines of August 27, 2020, for testimony, and September 10, 2020, for questions.

The Board and Staff have reviewed the prefiled testimony filed by the participants in this matter, and submit with this order their questions to those witnesses, included as Attachment A. Anyone may file a comment, and anyone may respond to the attached questions, as well as any other pre-filed questions in the record.

All filings in this proceeding will be available on the Board's website at <https://pcb.illinois.gov/> in the rulemaking docket [R20-19](#). Unless the Board, hearing officer, Clerk, or procedural rules provide otherwise, all documents in this proceeding must be filed electronically through the [Clerk's Office On-Line](#). 35 Ill. Adm. Code 101.302(h), 101.1000(c), 101.Subpart J.

IT IS SO ORDERED.



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ATTACHMENT A**R20-19
PROPOSED NEW 35 ILL. ADM. CODE 845, STANDARDS FOR THE DISPOSAL OF
COAL COMBUSTION RESIDUALS IN SURFACE IMPOUNDMENTS****R20-19: Standards for CCR Surface Impoundments
Questions for Witnesses Testifying at the Second Hearing****Questions for Andrew Rehn:**

1. On page 6, you state that it is critical to have the safety factor reports to be reviewed by a third party. Please clarify whether you are referring to the initial and annual assessments of structural safety and safety factors required by Sections 845.450 and 845.460. If so, please explain why the proposed professional engineer's certification required by those sections and subsequent review by the Agency is not sufficient to ensure accuracy of the calculations.
2. Also, on page 6, you state that while there were no surface impoundments that failed safety factors, there were a few that were close, and loss of life is likely if there is a failure at those sites. Please clarify whether you are recommending that the Board revise the safety factor. If so, provide specific revisions with technical justification.
3. Regarding closure by cap on page 7, you state that the rules must "establish comprehensive requirements for the alternatives analysis such that all the options are fully vetted from the outset." Please comment on whether the proposed closure alternative analysis required under Section 845.710 is adequate. If not, propose additional requirements with justification.
4. On pages 11-12, you state, "spatial map of the bottom elevation of the coal ash in impoundments should be included with the groundwater elevation measurements reported in hydrogeological investigations." Please comment on whether such a requirement should be added to Section 845.620.
5. Regarding ash ponds located in flood plains on page 12, you conclude that the risk of coal ash being exposed to water will increase. Please comment on whether you have any specific suggestions to strengthen the proposed flood plains related provisions under Section 845.110(b), 810.450, and 810.510.

Questions for Mark Hutson:

6. On page 7, you state that the rules must not allow waste to be left in place at or below the highest seasonal zone of subsurface saturation. Please clarify whether this type of prohibition should apply to only CCR surface impoundments that are impacting

groundwater above (exceeding) the groundwater protection standards (GWPS) or apply generally to all CCR impoundments under Part 845.

7. On page 9, you recommend that the rules at Section 845.120 define the terms “uppermost zone of saturation” and “uppermost aquifer”. Please clarify whether the definition of “uppermost aquifer” proposed by the Agency under Section 845.120 is acceptable. If not, propose language changes. Also, provide definitions of the terms “uppermost zone of saturation” and “highest seasonal zone of saturation”.
8. On page 10, you recommend that the Board consider floodplains as unstable locations for the purposes of the CCR rule. Please comment on whether all floodplain locations meet the proposed definition of “unstable area” under Section 845.120. If not, please explain why the rules should explicitly list floodplains as unstable area.
9. Regarding measurement of pore water elevation on page 11, you note, “[t]he elevation of liquid and/or porewater inside all CCR impoundments and landfills must be reliably and regularly measured.” Please comment on whether you are aware of CCR landfills being subject to the Board’s chemical waste landfill regulations under 35 Ill. Adm. Code 810-815, and whether those regulations require the leachate head over the liners to be maintained at less than a foot over the liner. See 35 Ill. Adm. Code 811.307 and 814.402. If so, should the Board consider your recommendation as it applies to only CCR surface impoundments and not landfills.
10. On page 17, you recommend that the rules require the alternative source demonstration (ASD) to be submitted as permit modification to facilitate public disclosure of the submission. Please comment on whether the inclusion of the ASD report in the operating record under Section 845.800, and the subsequent posting on the publicly accessible website under Section 845.810 achieves the same purpose of public disclosure.
11. On page 20, you recommend that Section 845.750(c)(1) (Final Cover System) be modified to “specify that the alternative cover system be protected from environmental and human damage, and that the cap system performs as well or better, and the expected life of the cover system is expected to be as long or longer, than the cover system described in the proposed rules.”
 - a. Please clarify whether you are referring to the alternative “low permeability layer construction technique or material” allowed under Section 845.750(c)(1).
 - b. If so, the rules already require such use of alternative layer to provide equivalent or superior performance than the low permeability layer required by the rules. Further, the alternative low permeability layer is subject to all other requirements under Section 845.750(c), including standards for final protective layer. In light of this, please clarify

whether additional modifications are necessary to the final cover system provisions. If so, specify such modifications.

Questions for Scott Payne and Ian Magruder:

12. The figures listed in your prefiled testimony goes from Figure 1 to Figure 3. Please clarify if Figure 2 is missing or the numbering is due to a typographical oversight.
13. On pages 32 and 36, you recommend that the Board require IEPA to develop model review guidance or a model review checklist specific to modeling Illinois CCR facilities to ensure the appropriate development and use of groundwater contaminant transport (GCT) models.
 - a. Please comment on whether you are aware of other Board regulations such as the nonhazardous landfill rules under 35 Ill. Adm. Code 811 that allow the regulated entities the flexibility to use GCT models of their choice as long as the regulatory criteria are met. See 35 Ill. Adm. Code 811.317(c).
 - b. If so, comment on whether it would be preferable to specify GCT model performance criteria in the rules rather than require the Agency to develop Illinois-specific guidance document? In this regard, clarify whether the proposed amendments to Sections 845.220 and 845.620 sufficiently address the regulatory criteria for GCT modeling.
 - c. Also, please submit a typical model review checklist that addresses the types of information that must be included in a modeling report submitted for the Agency's review.

Questions for Richard Gnat:

14. On page 2, you note that the Agency correctly defines a "landfill containing CCR" as a "CCR landfill" as defined in the Federal Coal Combustion Residual Rule (Federal CCR Rule) in 40 CFR 257.53. Please clarify if you are referring to the Agency's proposal. If so, identify the specific section of the rule where the term "CCR landfill" is defined.
15. On pages 12-15 and 18, you recommend the proposed rules should allow for additional time for confirmation resampling and alternative source demonstration. Please clarify whether your recommendations for additional time allowance are intended to be incorporated within the proposed rule without reverting to a two-tiered monitoring program.
16. On page 13, you state, "the Draft Rule establishes a more rigid and unnecessarily shorter in that quarterly monitoring is required (as opposed to semi-annual)".

- a. Please explain why you believe that quarterly monitoring frequency is unnecessarily shorter.
- b. Comment on whether the quarterly monitoring frequency is routinely required under other Board rules, such as the nonhazardous landfill regulations (35 Ill. Adm. Code 811.319) cited in your testimony on page 14.

Question for Sharene Shealey:

17. On page 15, you state, “[r]emoval and replacement of a competent liner that is not contaminated with CCR constituents adds even more unnecessary costs for retrofitting a CCR surface impoundment without any added benefit or protection. Accordingly, MWG recommends that the Board remove the phrase “including any liners” from 845.770(a)(1) so that existing liners that are not contaminated and in fact may be protective can remain in place for retrofitting.” Please comment on whether it would be acceptable to MWG, if the Board were to revise Section 845.770(a)(1) to specify "including any contaminated liners."

Questions for David Nielson:

18. On pages 5, you state, “Based on the conclusions made in US EPA’s Risk Assessment (Reference 4) and the lack of damage cases for composite-lined CCR surface impoundments, I agree with the US EPA’s determination that a leachate collection and removal system is not necessary for CCR surface impoundments to be protective of human health and the environment.”
 - a. Please clarify whether the USEPA’s risk assessment was intended to evaluate the rate of release of chemical constituents from surface impoundment liners with, and without leachate collection system.
 - b. If so, please provide specific references in the USEPA’s risk assessment report that address the issue of leachate collection system.
 - c. If not, comment on whether the installation of leachate collection system at new surface impoundments would reduce the movement of leachate chemical constituents through the composite liner.

Question for Cynthia Vodopivec:

19. On page 9, you state that any residual risks posed by closed units like Joppa West would be adequately addressed by other existing regulatory programs, such as the Act’s general prohibition against water pollution and the groundwater quality standards provided by 35 Ill. Adm. Code Part 620. Please clarify whether Dynegy has conducted groundwater

monitoring at the Joppa West site. If not, is Dynegy aware any groundwater impacts of Joppa West on potable water wells in the vicinity of the closed ash pond?

Questions for Lisa Bradley:

20. On page 27, you state, “it is my opinion that to ensure that corrective action is initiated based on sound statistical interpretation of both upgradient and downgradient groundwater monitoring results, the text in Section 845.650 (d) should be revised to be consistent with the federal CCR Rule and refer to a “statistically significant increase above the groundwater protection standard.” Please comment on whether triggering of corrective action based on a statistically significant increase above a groundwater protection standard rather than a single exceedence would be consistent with the corrective action protocols under 35 Ill. Adm. Code 620 groundwater quality standards.
21. On pages 32-33, you recommend units that receive only de minimis amounts of CCR do not present a risk warranting regulation. Please clarify whether CCR accumulated in these units receiving de minimis amounts is removed periodically. If not, comment whether accumulation of CCR in such units over a long period of time poses a threat of groundwater contamination.

Question for Melinda Hahn:

22. On page 5, you state that the “detailed assessment performed by Ramboll does not support the conclusion and allegations of the Cap and Run report of “widespread” and “unsafe” groundwater impacts from coal ash surface impoundments.” Please clarify whether Ramboll prepared a technical report detailing the groundwater reviews and assessments. If so, please submit a copy of the report into the record.

Question for David Hagen:

23. On page 31, you state that it is inappropriate to require corrective measures and post closure care to be completed within the proposed 30-year period because the timeframes to remedy groundwater may take a longer period of time. Please comment on whether the proposed 30-years postclosure care period should be required as a minimum time period rather than a set period of time to complete postclosure care.

Questions for Andrew Bittner:

24. On pages 9-10, regarding closure of CCR surface impoundments, you state that the proposed performance criteria under Section 845.710 are adequate for evaluating closures, including closure of CCR impoundments intersecting groundwater or those failing to meet the location standards. Among the requirements, you note that Section 845.710(b)(1)(E) allows the

determination of whether CCRs at a site act as a significant continuing source of constituents to groundwater.

- a. Please comment on whether the rules should require closure by removal if groundwater contaminant transport (GCT) modeling shows that a CCR surface impoundment intersecting groundwater or failing to meet location standards will not comply with the groundwater protection standards within the 30-year postclosure care period, i.e., the surface impoundment is a significant continuing source of constituents to groundwater.
 - b. In the alternative, comment on whether the rules should require longer postclosure care period, as determined by the GCT modeling results.
25. On page 24, you state, “[i]n order to accurately assess whether releases from an SI have occurred or are occurring, background concentrations should be specific to each SI, even if the upgradient groundwater has been affected by another source.”
- a. Please clarify whether you are recommending that background concentrations must be used as the groundwater protection standards for inactive and existing CCR surface impoundments instead of the proposed numeric standards.
 - b. If so, propose any revisions to the rules that implements the application of background concentrations as illustrated in your conceptual model of “SI-specific Background Concentration Determinations”.

Question for Mark Rokoff:

26. On page 24, you state, “[i]n addition to the ability for cost recovery, the opportunity for beneficial use also has a direct effect on the closure approach decision.”
- a. Please clarify whether you have any Illinois-specific or national data on the beneficial use of CCR in terms annual volume, as well as a percentage of CCR available for beneficial use to show the significance beneficial use factor when it comes to making closure approach decision.
 - b. If so, submit such information into the record.

Questions for Rudolph Bonaparte:

27. On page 4, you state that annual inspections by a qualified professional engineer (PE) are unnecessary during the postclosure care period, but you recommend that annual qualified PE inspections can cease at the initiation of closure.

- a. Please explain why annual inspection by PE is not needed during postclosure care period, especially if corrective action measures and groundwater monitoring are ongoing during postclosure.
 - b. Also, comment on why recommend inspection by PE to cease at initiation of closure rather than the commencement of postclosure care period.
28. On page 4, you recommend that the rules allow the use alternative monitoring frequency “when a technical demonstration (certified by a qualified professional engineer and approved by IEPA) shows that the alternative frequency satisfies applicable performance criteria (to also be added to Part 845).” Please suggest potential performance standards that could be considered for allowing alternative monitoring frequency.