

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

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

NOTICE OF FILING

To: ALL PARTIES ON THE ATTACHED SERVICE LIST

PLEASE TAKE NOTICE that I have today filed with the Office of the Clerk of the Pollution Control Board **Dynegy’s Responses to Questions for the Illinois Environmental Protection Agency**, copies of which are herewith served upon you.

Respectfully submitted,

/s/ Ryan C. Granholm

Ryan C. Granholm

Dated: July 20, 2020

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Dynergy’s Responses to Questions for IEPA

NOW COMES Dynergy Midwest Generation, LLC; Electric Energy Inc.; Illinois Power Generating Company; Illinois Power Resources Generating, LLC; and Kincaid Generation, LLC (collectively, “Dynergy”) by their attorneys, Schiff Hardin LLP, pursuant to 35 Ill. Adm. Code 102.108 and submits responses to questions posed to the Illinois Environmental Protection Agency (“IEPA”). On June 23, 2020, the Illinois Pollution Control Board’s (“Board”) Hearing Officer issued an Order which included prefiled questions for the IEPA. That Order stated that “[a]nyone may file a comment, and anyone may respond to the attached questions, as well as any other pre-field questions in the record.” In order to assist the Board in generating a complete record in this matter, Dynergy submits the enclosed responses to certain prefiled questions presented by the Board; the Little Village Environmental Justice Organization; and the Environmental Law and Policy Center, Prairie Rivers Network, and Sierra Club.

DYNEGY'S RESPONSES TO PRE-FILED QUESTIONS FOR THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

ON BEHALF OF THE LITTLE VILLAGE ENVIRONMENTAL JUSTICE ORGANIZATION:

Question for Lynn E. Dunaway

7. Do Illinois EPA's Proposed Regulations apply to all natural topographical depressions and man-made excavations where coal combustion residual has been disposed at power generating facilities?

RESPONSE: No. The Illinois Environmental Protection Agency's ("IEPA" or "Agency") proposed regulations apply to CCR surface impoundments. A CCR Surface impoundment as defined by 415 ILCS 5/3.143 is a "a natural topographic depression, man-made excavation, or diked area, which is **designed to hold an accumulation of CCR and liquids**, and the unit treats, stores, or disposes of CCR." 415 ILCS 5/3.143 (emphasis added). Not all topographical depressions and man-made excavations where coal combustion residual has been placed at power generating facilities are designed to hold an accumulation of CCR and liquids, and not all such areas treat, store, or dispose of CCR.

The Illinois Legislature made clear that it intended these rules to apply only to CCR surface impoundments. As explained in IEPA's Statement of Reasons, Public Act 101-171 created a new section of the Illinois Environmental Protection Act ("Act"), 415 ILCS 5/22.59 ("Section 22.59"), titled "CCR Surface Impoundments." Statement of Reasons at 7. As IEPA notes, Section 22.59(g) "direct[s] the Board to adopt rules 'establishing construction permit requirements, operating permit requirements, design standards, reporting, financial assurance, and closure and post-closure care requirements **for CCR surface impoundments.**'" *Id.* at 7-8 (quoting Section 5/22.59(g)) (emphasis added). Section 22.59(g) includes eleven subparts, which outline specific elements to be included in the Board's rules. Each of these eleven subparts relate specifically to CCR surface impoundments. Section 22.59(g)(1)-(11). Section 22.59 does not require or authorize the Agency to propose nor the Board to promulgate regulations governing CCR, other than the management of CCR in surface impoundments located at electric generating facilities.

ON BEHALF OF ILLINOIS POLLUTION CONTROL BOARD:

SUBPART F: GROUNDWATER MONITORING AND CORRECTIVE ACTION

48. Mr. Dunaway notes that the GWPS in proposed Part 845 are intended to be stand-alone standards, unrelated to Part 620. Dunaway PFT at 6. Further, he explains that Part 845.600(c) is intended to clarify that the alternative standard pursuant to Part 620.450(a)(4) is not available for any constituents with GWPS subject to proposed Part 845 until the end of post-closure care.

...

b. If not, to avoid any conflicts or confusion with the application of Part 620, comment on whether the proposed rules must include a provision noting that CCR surface impoundments subject to Part 845 are exempted from the Part 620 groundwater quality standards until the Agency approves the facility's completion of post-closure care.

RESPONSE: To avoid conflicts and confusion, Dynegy agrees with the Board's suggestion that Part 845 should include a provision noting that CCR surface impoundments subject to Part 845 are exempt from Part 620 groundwater quality standards, for the constituents listed in Part 845.600, until the Agency approves the completion of post-closure care. Otherwise, confusion and conflict could arise in connection with the application of the groundwater standards, points of compliance, and corrective actions required under each program. For example, a number of CCR surface impoundments are located at facilities with Class II or Class IV groundwater, yet Part 845 would require such impoundments to meet groundwater standards modeled after the Class I groundwater quality standards.

49. Section 845.610(d) requires the owner or operator a CCR surface impoundment in the event of a release to immediately take all necessary measures to control all sources of the release so as to reduce or eliminate, to the maximum extent feasible, further releases of contaminants into the environment.

a. Please clarify whether the term "release" has the same meaning as the definition under Section 3.395 of the Act.

RESPONSE: It does not.

b. If not, explain what constitutes "release in the context of this subsection.

RESPONSE: The language in Part 845.610(d) closely mirrors that of 40 C.F.R. 257.90(d). U.S. EPA has explained that 40 C.F.R. 257.90(d) was added to "address the corrective action requirements that apply when CCR have been released into the environment, such as the kind of structural failure that occurred with TVA's Kingston Fossil Fuel plant release, or from the kind of release that occurred in North Carolina at the Dan River." 80 Fed. Reg. at 21,399 (Apr. 17, 2015). To avoid confusion, "of CCR" should be added after "event of a release" in 845.610(d).

c. Would subsurface transport of contaminants from a CCR surface impoundment to underlying groundwater that does not cause exceedances of the applicable GWPS considered as a release?

RESPONSE: No. Part 845.610(d) is not intended to expand the corrective measures required by Part 845.660-680 when constituents from a CCR surface impoundment leak into groundwater and concentrations of these constituents are not above the Part 845.600 groundwater protection standards. Instead, as discussed in Response 49(b), that provision is intended to cover releases of CCR itself that occur as a result of structural failures. If the term “release” were intended to cover CCR constituents leaching from a CCR surface impoundment to underlying groundwater, then it would render much of Subpart F superfluous.

SUBPART G: CLOSURE AND POST-CLOSURE CARE

61. Section 845.700(a) specifies that the owner or operator must cease placing CCR or “non-CCR waste streams” in CCR surface impoundments that are required to initiate closure under Subpart G.

a. Please clarify whether CCR surface impoundments subject to Part 845 are generally allowed to receive “non-CCR waste streams” during operation.

RESPONSE: Yes. CCR surface impoundments subject to Part 845 are generally allowed to receive “non-CCR waste streams” during operation.

...

c. If so, comment on the types of non-CCR waste streams that are allowed to be accepted at CCR surface impoundments.

RESPONSE: Some of the types of non-CCR waste streams include stormwater runoff and low volume wastes. Low volume wastes include coal pile run-off, boiler cleaning solutions, boiler blowdown, process water treatment and demineralizer regeneration wastes, cooling tower blowdown, air heater and precipitator washes, effluents from floor and yard drains and sumps, and wastewater treatment sludges. These non-CCR waste streams are commonly referred to as “uniquely associated wastes” and are specifically exempt from federal hazardous waste regulation when co-disposed with CCR. *See* 40 C.F.R. 261.4(b)(4)(ii). Generally, these low volume wastes are managed in accordance with a facility’s Clean Water Act permit.

71. Section 845.760(a) allows the owner or operator of a CCR surface impoundment up to 5 years from the date of submitting the construction permit application to complete closure activities. Please comment on the rationale for allowing up to 5 years for completing closure activities. In this regard, the Board’s landfill regulations require closure activities to be completed within 180 days of beginning closure. *See* 35 Ill. Adm. Code 811.110.

RESPONSE: Many closure activities are expected to take more than 180 days to complete. For landfills, unlike surface impoundments, 180 days is often appropriate because

during the operation of the landfill various interim cover activities are performed regularly to control vectors (invasive animals), blowing trash, and odors. Many CCR surface impoundment closure activities, particularly removal activities, are expected to take more than 180 days to complete because of the size/area required to be closed all at one time and the significant amounts of time required to dewater units for either closure in place or closure by removal. Consequently, it is inappropriate to place an arbitrary deadline upon when construction activities must be completed. U.S. EPA recognized this when it proposed a federal CCR permit program that would allow permits for CCR units to be issued without an expiration date. Proposed 40 C.F.R. 257.120(b)(7); 85 Fed. Reg. at 9,978 (Feb. 20, 2020).

ON BEHALF OF ELPC, PRAIRIE RIVERS NETWORK AND SIERRA CLUB:

Questions to Melinda Shaw

Location Standards:

3. If a CCR surface impoundment does not meet the uppermost aquifer location restriction, is it the Agency's position that closure in place is permissible?

RESPONSE: Nothing in IEPA's proposal or the federal CCR Rule precludes an impoundment that has failed the uppermost aquifer location restriction from closing in place.

a. What is the basis for that position?

RESPONSE: The criteria contained in Part 845.710 for evaluating closure alternatives are sufficient to ensure all selected closures are protective of human health and the environment, even at sites that are required to close because they fail the aquifer location restriction. For example, Part 845.710(b)(1)(B) and (b)(2) requires the owner/operator to evaluate the risk of future releases to groundwater when an impoundment is located within five vertical feet of groundwater; and Part 845.710(b)(1)(E) requires the owner/operator to assess how the time to achieve the groundwater protection standards is affected by groundwater being located within five vertical feet of an impoundment. Furthermore, closure in place (i.e., with a final cover system) may be supplemented by incorporating other source control measures, such as construction of barrier walls, when necessary to achieve the closure performance standards.

This is consistent with the CCR Rule, because nothing in 40 C.F.R. 257.102 precludes closure in place for units that fail the uppermost aquifer location restriction.

Questions to Lynn Dunaway

Statement of Reasons:

7. On page 10 of the Statement of Reasons, the Agency states "The proposed rules contain groundwater protection standards that apply in addition to the groundwater quality standards in Part 620." However, the Agency deleted 845.600(c) of the draft rule which stated "In addition to the groundwater protection standards in subsections (a) and (b), the groundwater quality standards in 35 Ill. Adm. Code 620 apply to CCR surface impoundments. When the groundwater protection standards in subsections (a) and (b) and the groundwater quality standards in 35 Ill. Adm. Code 620 are inconsistent, the more stringent standards shall apply." Why did the Agency delete this language?

RESPONSE: That language would create conflicting and confusing requirements. For example, it would create conflicting and confusing requirements associated with applicable groundwater standards. Proposed Part 845 requires CCR surface impoundments to meet its groundwater protection standards at the waste boundary. To require those monitoring wells to also meet the Part 620 standards creates confusion because, generally speaking, the groundwater

located within 25 feet of a CCR surface impoundment is Class IV groundwater under Part 620, for which the groundwater quality standards are the existing concentrations. R14-10, IEPA's Motion to Amend at 10 (July 15, 2016) ("A CCW surface impoundment is a potential primary source, and the groundwater which underlies a potential primary source is considered Class IV. 35 Ill. Adm. Code 620.240(e). Under Class IV, the groundwater quality standard is the existing concentration. 35 Ill. Adm. Code 620.440(a). The Class IV groundwater under a CCW surface impoundment extends a lateral distance of 25 feet from the edge of [the] surface impoundment or to the property boundary, whichever is less, and to a depth of 15 feet from the bottom of the surface impoundment or the land surface, whichever is greater.").

In other words, the previously proposed language did not make sense as applied to CCR surface impoundments. Dynegy is of the opinion that in order to avoid further confusion, Part 845 should explicitly state that the Part 620 groundwater quality standards are inapplicable until the Agency approves the facility's completion of post-closure care.

Groundwater Protection Standards:

12. On page 2 of your testimony, you state that the federal GWPS do not "have numerical values for all of the parameters commonly associated with CCR." Please identify those parameters and provide the basis for your statement.

RESPONSE: Dynegy disagrees with this statement and directs the Board to the federal CCR Rule, where U.S. EPA determined that monitoring the 20 constituents set forth in Part 845.600, which are listed in Appendices III and IV to 40 C.F.R. 257, would be sufficient to assess releases from CCR surface impoundments into the environment and would be protective of human health and the environment. 40 Fed. Reg. 21,397 & 21,404-05 (Apr. 17, 2015).

13. On page 5 of your testimony, you state that "when the up gradient background concentration of any constituent exceeds the numerical GWPS...an SSI over background is the only reasonable approach for compliance determinations."

...

d. If groundwater samples taken from up gradient monitoring wells reflect CCR contamination, would the Agency consider that to be "background"?

RESPONSE: If the upgradient wells reflect CCR contamination from a CCR surface impoundment or a landfill containing CCR then those wells would not be considered "background." Like the federal CCR Rule, because Part 845 is intended to address releases from CCR surface impoundments, and not groundwater contamination from other sources, it may be inappropriate to develop background concentrations for an entire site or uniformly apply the same background concentrations at all surface impoundments located on a particular site. Part 845.630(a)(1), as proposed, recognizes this and states that background should be established by examining "groundwater that has not been effected by leakage from a landfill containing CCR or CCR surface impoundment."

18. On page 7 of your testimony, you state that “owners or operators of CCR surface impoundments, in the event of a release, must control the source of the release immediately and begin appropriate corrective action as required by this Subpart.”

a. What does the Agency understand as a “release” in this context?

RESPONSE: The language in Part 845.610(d) closely mirrors that of 40 C.F.R. 257.90(d). U.S. EPA has explained that 40 C.F.R. 257.90(d) was added to “address the corrective action requirements that apply when CCR have been released into the environment, such as the kind of structural failure that occurred with TVA’s Kingston Fossil Fuel plant release, or from the kind of release that occurred in North Carolina at the Dan River.” 80 Fed. Reg. at 21,399 (April 17, 2015). To avoid confusion, “CCR” should be added after “the release of” in 845.610(d).

b. Is it different from the leaking of CCR constituents into groundwater as determined by proposed Subpart F?

RESPONSE: Yes, it is different, otherwise, many of the requirements in Subpart F would be superfluous.

Questions to Amy Zimmer

Closure or Retrofit of CCR Surface Impoundments:

7. You state in your testimony that the proposed prioritization scheme for closure is based on “risk to health and the environment and the impoundment’s proximity to areas of environmental justice concern.”

...

e. Do you agree there are risks to allowing an unlined impoundment in a floodplain?

RESPONSE: Any risks from allowing an existing impoundment to be closed in place in a floodplain will be assessed and taken into account when an owner/operator performs a closure assessment pursuant to proposed Part 845.710. Part 845.710 ensures protection of human health and the environment by specifying protective performance standards and allowing owners/operators to tailor their closure approach to the unique conditions of their site. This approach is consistent with decades of corrective action alternatives assessment methods for cleanups under the federal RCRA and CERCLA programs.

There are several ways in which Part 845.710 will address the potential impacts of floodwaters. For example, Part 845.710(b)(1)(B) requires owners/operators to assess future risks of releases of CCR from surface impoundments due to floodwater and the extent to which technologies may be needed to control such releases. Part 845.710(b)(1)(F) requires owners/operators to assess potential structural hazards posed by floodwaters. And, Part 845.710(b)(1)(G) requires owners/operators to evaluate whether overtopping floodwaters present a reliability risk. In addition to the Part 845.710 criteria—which ensure a protective closure alternative is selected—

Part 845 requires hazard potential, structural stability, and safety factor assessments, which will reduce the susceptibility of any CCR surface impoundment to structural damage from floodwaters. The groundwater corrective action assessment and selection requirements in Parts 845.660 and 670 also will ensure that the risks to groundwater from floodwaters are accounted for.

Closure Alternatives Analysis:

10. You state that the owner or operator of a CCR surface impoundment must take into account the short- and long-term effectiveness and protectiveness of the closure method.

...

f. Given how long constituents can continue to leach out of CCR, how long must water be kept out of contact with CCR in order for the closure method to continue to be effective and protective? Please explain.

RESPONSE: Site-specific conditions will influence how long constituents may leach from a CCR surface impoundment. For example, when a CCR surface impoundment is located on high permeability alluvium, which is often the case at sites in Illinois, and the hydraulic gradients are also relatively high, the vast majority of groundwater flow is through the alluvium, not through the CCR material. In such a situation, leaching will quickly dissipate after sluicing of CCR into the impoundment ceases. At other CCR surface impoundments, removing the impoundment from service will reduce localized groundwater mounding, reducing or eliminating the contact between groundwater and CCR. The criteria contained in Part 845.710 are adequate to assess whether a closure alternative will be protective of human health and the environment when CCR is in contact with groundwater.

...

1. If a river is meandering toward the CCR surface impoundment, does erosion of the CCR surface impoundment and release of the CCR contained therein ever cease to be a concern?

RESPONSE: Any risk of erosion or release is dependent upon site specific conditions relating to geomorphology, scour rates, rate of migration, and location of the surface impoundment relative to the river. When appropriate, various stabilization measures can be utilized to manage and mitigate these risks and, with regular inspection and maintenance, can effectively allay any concerns related to meandering rivers.

14. You state that the closure alternatives analysis must, for each alternative, “contain groundwater contaminant transport modeling showing that the alternative will achieve applicable groundwater protection standards.”

...

e. Is there a certain period of time that a closure alternative will take to achieve the groundwater protection standards that the Agency will consider unacceptable?

RESPONSE: No. Site specific conditions should be used to determine an acceptable time to achieve the groundwater protection standards. As Agency staff has testified in other proceedings, it often takes decades for remedial measures to achieve applicable groundwater standards. R14-10, Hearing Transcript at 247-48 (Feb. 26, 2014) (Agency Witness R. Cobb: “[G]roundwater doesn't clean up overnight. It can take decades to clean up groundwater.”).

15. Does the Agency plan to consider any information concerning costs of different closure alternatives in evaluating construction permit applications for closure?

RESPONSE: Cost has long been a factor in federal and state regulations used to evaluate and select appropriate corrective action and closure alternatives. U.S. EPA recognized that owners/operators would consider costs when selecting a closure method for CCR surface impoundments. According to U.S. EPA, the federal CCR Rule “...**allows the owner or operator to determine** whether clean closure or closure with the waste in place is appropriate for their particular unit” and notes that most facilities will not excavate their units “...given the **expense and difficulty** of such an operation.” 80 Fed. Reg. at 21,412 (Apr. 17, 2015) (emphasis added). The CCR Rule, therefore, does not prohibit consideration of costs, so long as the closure performance standards are met. Part 845 should do the same, by allowing consideration of costs where there is more than one available option that will satisfy the requirements of Parts 845.740 or 845.750.

Finally, consideration of cost is consistent with the currently proposed language of Part 845, specifically the “ease or difficulty of implementing a closure method” in Part 845.710(b)(3); the “ease or difficulty of implementing a potential remedy” in 845.670(e)(3); and the “ease of implementation” in 845.660(c)(1). These phrases evoke factors such as the scope of a corrective action/closure method, the technical sophistication of proposed work, and the use of highly specialized equipment or personnel. Each of these factors would have cost implications.

Closure with a final cover system:

23. You state that the “impoundment must be closed in a manner that will control, minimize, or eliminate, as much as feasible, post-closure infiltration of liquids and also releases of CCR, leachate, or contaminated runoff.”

...

c. What does the Agency mean by “post-closure infiltration of liquids”? Please provide examples of how liquids could continue to infiltrate the CCR surface impoundment after closure.

RESPONSE: The phrase “post-closure infiltration of liquids” appears in 845.750(a), which is nearly identical to 40 C.F.R. 257.102(d). Reading this provision in context with the CCR Rule makes clear that the requirement to “[c]ontrol, minimize or eliminate, to the

maximum extent feasible, post-closure infiltration of liquids into the waste” is intended to address the effectiveness, stability, and integrity of the final cover system. For example, earlier in 40 C.F.R. 257.102, there are requirements to provide “a description of the final cover system” and “discuss how the final cover system **will achieve the performance standards specified in paragraph (d)** of this section.” 40 C.F.R. 257.102(b)(1)(iii) (emphasis added). This requirement clearly ties the requirement to “control, minimize or eliminate post-closure infiltration” to the final cover system—which sits on the surface of the unit to prevent precipitation from entering the CCR from above.

The preamble to the CCR Rule likewise links the term “infiltration” to the final cover system: “The final rule requires that any **final cover system** control, minimize or eliminate, to the maximum extent practicable, post-closure infiltration of liquids into the waste and releases of leachate (in addition to CCR or contaminated runoff) to the ground or surface waters.” 80 Fed. Reg. at 21,413 (emphasis added). This meaning of “infiltration” is confirmed by U.S. EPA’s statement in its Phase 1, Part 1 proposal that “[a] primary purpose of a final cover system is to encourage free surface drainage in order to limit infiltration **from precipitation into the underlying waste.**” 83 Fed. Reg. at 11,606 (Mar. 15, 2018) (emphasis added). U.S. EPA’s statements make clear, therefore, that “infiltration” refers to vertical infiltration via precipitation through the surface of a unit.

While closure will assist with addressing any impacts to groundwater, the infiltration closure performance standard is not designed to address contact between CCR and groundwater. Instead, any impacts will be addressed by the provisions of the rule regarding groundwater contamination – Subpart F. In addition, the Part 845.710 closure alternatives analysis will ensure that closure mitigates any impacts of contact with groundwater by requiring the owner/operator to assess the risk of future leaks from CCR surface impoundments at a site. Furthermore, Part 845, like the federal CCR Rule, allows the use of additional technologies beyond a final cover system, such as barrier walls, to address intersecting groundwater when a cover system and monitored natural attenuation are insufficient to achieve the groundwater protection standards.

24. You state that the owner or operator must eliminate free liquids by removing liquid wastes and solidifying the remaining wastes and residues. Does the Agency consider CCR surface impoundments that allow groundwater to flow into, and leachate to flow out of, CCR – either continuously or episodically – as having “eliminated free liquids”? Please explain the basis for your statement.

RESPONSE: This question conflates two separate issues: (a) removal of liquid waste as part of closure in place; and (b) analyzing and controlling any impacts associated with contact between CCR and groundwater. Removing liquid wastes refers to removing the ponded, free-standing, and mobile water in the surface impoundment. For example, in its 2014 Risk Assessment, U.S. EPA stated “[d]uring operation, **free liquids that are ponded** in the impoundment create a strong hydraulic head that acts to increase infiltration through the base of the impoundment. The removal of free liquids and capping during closure reduces the hydraulic head and the rate of contaminant migration.” Human and Ecological Risk Assessment of Coal Combustion Residuals, at 1214 (Dec. 2014) (emphasis added). Since 1982, U.S. EPA’s RCRA regulations have required that closure of hazardous waste surface impoundments “[e]liminate

free liquids by removing liquid wastes or solidifying the remaining wastes and waste residues.” 40 C.F.R. 264.228(a)(2)(i). Contemporaneous guidance indicates that the free liquids requirement relates primarily to the structural stability of an impoundment and its ability to support a cover system: “In addition to eliminating the free liquids from SI’s, other waste preparatory procedures may be necessary prior to the construction of a landfill cover. These procedures may consolidate and stabilize the wastes so that the potential for leaching and differential settlement are minimized.” Closure of Hazardous Waste Surface Impoundments, at 9 (Sept. 1982).¹ This guidance does not suggest that removal is required where all liquids cannot be removed from an impoundment, rather only where “free liquids cannot be removed **to yield sufficient density to support the cover** and associated construction vehicles.” *Id.* (emphasis added).

The requirement to eliminate free liquids does not preclude groundwater, upon completion of closure, from flowing into and out of the surface impoundment, because groundwater is not a liquid waste. Nor does the interaction of groundwater and CCR make groundwater a liquid waste. Consistent with U.S. EPA’s prior guidance regarding the elimination of liquid wastes, both Part 845.750 and the federal CCR Rule, the requirement to eliminate free liquids is included under the “[d]rainage and stabilization of CCR surface impoundments” (Part 845.750(b) and 40 C.F.R. 257.102(d)(2)), because it is intended to be a structural stability requirement, rather than a control on future leaching of CCR constituents. Groundwater that may contact CCR and become impacted is addressed separately as part of the groundwater corrective action process in Subpart F. Thus, there are no requirements in either existing federal regulations or in Part 845 that precludes using closure in place as the closure alternative for surface impoundments with intersecting groundwater.

26. Has the Agency evaluated the potential environmental impact of allowing additional CCR, rather than clean fill, to be placed in the impoundment before closure?

...

b. If so, could you please describe the results?

RESPONSE: No meaningful increase to the post-closure leaching of CCR constituents is anticipated by increasing the vertical height of the CCR, without increasing its lateral extent. This is because the surface area and properties of the cover system, not the amount of CCR below the cover system, has the greatest influence on the constituent mass added to the aquifer

¹ Available at

<https://nepis.epa.gov/Exe/ZyNET.exe/10003K5Z.TXT?ZyActionD=ZyDocument&Client=EPA&Index=1981+Thru+1985&Docs=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A%5Czyfiles%5CIndex%20Data%5C81thru85%5CTxt%5C00000000%5C10003K5Z.txt&User=ANONYMOUS&Password=anonymous&SortMethod=h%7C-&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=hpfr&DefSeekPage=x&SearchBack=ZyActionL&Back=ZyActionS&BackDesc=Results%20page&MaximumPages=1&ZyEntry=1&SeekPage=x&ZyPURL#>

post-closure. In other words, the amount of water infiltrating vertically downward through the cap is unimpacted by the amount of underlying CCR. Furthermore, the concentration of the leachate should not be affected by the amount of underlying CCR because the concentration is controlled by the sorption coefficients, which will be at a constant value relative to the concentrations in the CCR regardless of whether the water passes through 10 or 20 feet of CCR.

Questions to Darin LeCrone

17. Regarding proposed 35 Ill. Adm. Code 845.220(c)(2) and (d)(3):

a. Why do the rules not require a demonstration of achieving compliance with applicable groundwater standards within thirty years?

RESPONSE: Site specific conditions should dictate a reasonable timeline for achieving compliance with the applicable groundwater standards. As Agency staff has testified in other proceedings, remediation of groundwater often takes decades at CCR surface impoundment sites. R14-10, Hearing Transcript at 247-48 (Feb. 26, 2014) (Agency Witness R. Cobb: “[G]roundwater doesn't clean up overnight. It can take decades to clean up groundwater.”). Therefore, there is no rational basis for setting an arbitrary deadline of thirty years.

18. Regarding proposed 35 Ill. Adm. Code 845.230(a), why do the rules not prohibit existing surface impoundments in floodplains?

RESPONSE: Rather than adopting a blanket prohibition, Part 845 contains a number of requirements that ensure CCR surface impoundments may only exist in floodplains where it is safe to do so. Part 845.110 requires CCR surface impoundments to comply with specific requirements intended to protect floodplains. For example, CCR surface impoundments cannot restrict the flow of the base flood or result in washout of solid waste so as to pose a hazard to human life, wildlife, or land and water resources. Any risks from allowing an impoundment to remain in a floodplain will be assessed and taken into account when an owner/operator performs a closure assessment pursuant to proposed Part 845.710. The proposed 845.710 factors are consistent with decades of corrective action alternatives assessment methods for cleanups under RCRA and CERCLA. Part 845.710 ensures protection of human health and the environment by specifying protective performance standards that allow site owners or operators to tailor their closure approach to the unique conditions of their site, including floodplains. Part 845.710(b)(1)(B) requires owners/operators to assess future risks of releases of CCR from surface impoundments due to floodwater and the extent to which technologies may be needed to control such releases. Part 845.710(b)(1)(F) requires owners/operators to assess whether structural hazards posed by floodwaters are of concern. And, Part 845.710(b)(1)(G) requires owners/operators to evaluate whether overtopping floodwaters present a reliability risk.

In addition to the Part 845.710 criteria—which ensure a protective closure alternative is selected—Part 845 requires hazard potential, structural stability, and safety factor assessments which will reduce the susceptibility of any closure to structural damage from floodwaters. The groundwater corrective action assessment and selection requirements in Part 845.660 – 680 also will ensure that the risks to groundwater from floodwaters are accounted for.

Questions to Chris Pressnall

6. a. The Coal Ash Pollution Prevention Act requires the prioritization of closure of impoundments in EJ communities that are required to close under Federal Law, right?

RESPONSE: 415 ILCS 5/22.59(g)(9) states that the rules must: “specify a method to prioritize CCR surface impoundments required to close under RCRA **if not otherwise specified by the United States Environmental Protection Agency**, so that CCR surface impoundments with the highest risk to public health and the environment, and areas of environmental justice are given first priority.” (emphasis added). Therefore, 415 ILCS 5/22.59(g)(9) only requires prioritization for those units with the highest risk to the public health and the environment, and areas of environmental justice if a closure schedule has not been established by the U.S. EPA.

Questions to Lauren Martin

Air Criteria:

1. Please list all OSHA worker safety regulations pertaining to air that apply to coal ash impoundments.

RESPONSE: OSHA worker safety regulations pertaining to air do not apply to coal ash impoundments. OSHA worker safety regulations apply to certain activities performed on or at CCR surface impoundments, as outlined in those regulations.

Safety and Health Plans:

17. Please list all OSHA worker safety regulations that apply to coal ash impoundments, to the Agency’s knowledge.

RESPONSE: OSHA worker safety regulations do not apply to coal ash impoundments. OSHA worker safety regulations apply to certain activities performed on or at CCR surface impoundments, as outlined in those regulations.

Respectfully submitted,

/s/ Joshua R. More

Joshua R. More

Dated: July 20, 2020

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CERTIFICATE OF SERVICE

I, the undersigned, certify that on this 20th day of July, 2020, I have served electronically the attached **Dynegy's Responses to Questions for the Illinois Environmental Protection Agency**, upon the individuals on the attached service list. I further certify that my email address is rgranholm@schiffhardin.com; the number of pages in the email transmission is 20; and the email transmission took place today before 5:00 p.m.

Respectfully submitted,

/s/ Ryan C. Granholm

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