

BEFORE THE POLLUTION CONTROL BOARD
OF THE STATE OF ILLINOIS

IN THE MATTER OF:)	
)	
STANDARDS FOR THE DISPOSAL)	
OF COAL COMBUSTION RESIDUALS)	R 20-19
IN SURFACE IMPOUNDMENTS:)	(Rulemaking – Water)
PROPOSED NEW 35 ILL. ADM. CODE)	
PART 845)	

NOTICE OF FILING

To: Don Brown, Clerk
Vanessa Horton, Hearing Officer
Illinois Pollution Control Board
100 West Randolph
Suite 11-500
Chicago, IL 60601

And Attached Service List

Please take notice that on September 10, 2020, I filed electronically with the Office of the Clerk of the Illinois Pollution Control Board the attached **Prefiled Questions of the City of Springfield, Office of Public Utilities d/b/a City Water, Light and Power**, a copy of which is attached and served upon you.

Respectfully submitted,

THE CITY OF SPRINGFIELD,
a municipal corporation

By Deborah J. Williams
One of its Attorneys

Dated: September 10, 2020

Deborah J. Williams
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PRE-FILED QUESTIONS OF THE CITY OF SPRINGFIELD, OFFICE OF PUBLIC
UTILITIES d/b/a CITY WATER, LIGHT AND POWER

NOW COMES the City of Springfield, Office of Public Utilities d/b/a City Water, Light and Power (“CWLP”) by and through its counsel, and hereby submits the following pre-filed questions for certain witnesses based on the Pre-Filed Testimony filed with the Board on August 27, 2020. CWLP further requests that the Hearing Officer allow follow-up questioning to be posed at hearing based on the answers provided.

Questions for Mark Hutson

1. Do you agree that capped CCR impoundments are less subject to settling than Municipal Solid Waste (“MSW”) landfills?
2. When capping in place is able to cut off interaction with groundwater, is it a more environmentally friendly method of closure than transporting of waste by truck to another location?
3. Do you know of existing landfills able to accept CCR wastes in the quantities necessary to close all ash ponds in the State by removal within the proposed time frames?
 - a. If so, where are these landfills located?
 - b. Will new landfills need to be constructed for this purpose?

- c. Have you had experience with existing MSW landfills accepting Coal Combustion Residual ("CCR") material?
 - d. If so, do you know whether these facilities combine it with other waste or create separate cells for this material?
4. On page 23 of your testimony you referenced closures by removal in South Carolina that were projected to take 8 and 9 years to complete. Are these timelines typical? Where did the ash go in these closures?
5. You testify on page 13 that Section 845.630(a) should be amended to add a "requirement that the owner or operator on [sic] a CCR impoundment install a monitoring system capable of characterizing the elevation of liquid within the unit as well as the chemistry of leachate collected from near the bottom of the CCR unit during each monitoring event."
 - a. Explain what type of monitoring system for the chemistry of leachate near the bottom of a CCR unit you are referring to?
 - b. What type of monitoring system capable of characterizing the elevation of liquid within the impoundment do you want the Board to require?
 - c. What information will be derived from these monitoring systems and how will it be used by the permittee or the Agency?
 - d. How much will your recommendation cost?
6. Is it your opinion that floodplains need to be included in the definition of unstable area in Section 845.340(a) and 845.120? If so, what definition of floodplain are you relying on for this recommendation?
7. What is the difference between the term "uppermost zone of saturation" you suggest for Section 845.700 and the term "highest seasonal zone of saturation" which you suggest for Section 845.220(b)(1)(A)?
8. On page 9 you state "Floods with a probability of 1% in any year are becoming more common as the climate warms."
 - a. Are you relying on particular sources when you make this statement or are you just speaking in general terms?
 - b. Are you referring to the size of large storms or their frequency?

- c. Do you agree that the size of the 1 hour, 100-year flood in the southern half of Illinois has not grown in the last 30 years according to the current version of Bulletin 70? (See Exhibit 41 of Andrew Rehn testimony).

Questions for Dulce Ortiz

1. Were you involved in preparing the exhibit included with your testimony as Attachment 2?
2. Who are the authors and when was the study completed? Why is the exhibit undated?
3. Are you familiar with the methodology that was used to rank the Environmental Justice impact of facilities?
4. Do you agree that these rankings are outdated?
5. Can you explain the levels of NOx and SO2 pollution that were used in the formula to reach City Water Light and Power's ranking?
6. Can you testify whether those levels are representative of levels from the last decade?

Questions for David Hagen

1. On page 21 of your testimony, you make the conclusion that "Removal will not always result in achieving the groundwater protection standards earlier." Explain the reasoning behind your opinion.
2. On page 21 of your testimony you refer to "daily disposal limits set by off-site landfill permits" as an example of factors that can delay the timeline of a closure by removal project. Explain what a "daily disposal limit" is and how it could delay a project?

Question for Melinda Hahn

1. Did you look at the City Water, Light & Power Dallman and Lakeside Ash Pond sites for evidence of impact on surface water intakes, community water supply wells or other private potable wells from that site? What did you conclude?

Questions for Dr. Lisa Bradley

1. In your discussion of toxicity of CCR as a whole and individual metal components, you do not specifically mention boron. What is your opinion of the relative risks and toxicity from boron in coal ash?
2. On pages 26-27 you testify that "In the middle of the state, where background concentrations of arsenic in groundwater are high, the background variability could result in a single downgradient result that is above the groundwater protection standard (whether based on background or a CCR surface impoundment) in one round of downgradient groundwater sampling but not in another." What geographic region specifically are you referring to when you state "in the middle of the state, where background concentrations of arsenic in groundwater are high"?

Question for Andrew Bittner

1. Explain why you conclude that size of an impoundment or impoundments can impact what type of closure method is more environmentally protective of groundwater quality?

Questions for Dr. Rudolph Bonaparte

1. You provide testimony on page 18 comparing the costs and duration of closure by removal and closure in place. In the example, you indicate that closure by removal took 7 times as long as closure in place at a 60 acre site. Assuming this represents a 'medium-sized' impoundment, do you have an opinion of whether this ratio of 7 times as long would also apply at small and large impoundments?
2. It appears that the estimate of 140 months for closure by removal at this hypothetical site was based on a disposal limitation of 1,000 cubic yards per day. Was this disposal limitation intended to represent the total daily limit of the hypothetical landfill or a percentage of the landfill's total daily limit? Was it based on actual landfill daily limits in Illinois?
3. In calculating a cost of \$152 million for closure by removal for the hypothetical 60 acre impoundment site, did you include the cost of transportation? What assumption did you make regarding transportation costs for the 20 mile trip to the disposal site? Would those costs increase if sufficient landfill space within 20 miles was unavailable?

4. In calculating a cost of \$152 million for closure by removal for the hypothetical 60 acre impoundment site, you use an estimate of \$29/ton as a landfill tipping fee. What did you base this estimate on?
5. Would you consider your cost assumptions to be conservative estimates?
 - a. Are there site specific conditions that could increase disposal costs beyond what you have estimated?
 - b. If so, what are some factors that might increase these estimates?
6. Are you aware of whether landfill operators have concerns about mixing CCR waste with putrescible waste? If so, what are those concerns?
7. Is it likely for a CCR impoundment owner to be able to demonstrate a low permeability layer of compacted earth of less than 36 inches will meet the performance standards in Section 845.750? What factors would a successful demonstration likely be based on?

Question for Mark Rokoff

1. Is it a correct summary of your testimony to state that just under half of ash impoundment closures have been by removal, but that those represent only 17% of the volume of CCR from ash ponds that have been subject to closure?

Questions for Andrew Rehn

1. Have you been to the site where the Dallman and Lakeside Ash Ponds are located in Springfield? If so, when and where?
2. Describe in detail the steps used to create the map in Attachment 34 of the Dallman and Lakeside Ashponds with citations to sources so that it can be recreated by someone else.
3. You state that you were "not able to find FEMA 100-year flood data for every coal ash site in Illinois" (page 12)? Why? How did you decide which facility maps were included in your testimony?
4. What size flood is the map in Attachment 34 to your testimony showing? How many hours or days does that size flood represent? How many inches of rain?
5. Is it your testimony that the Dallman and Lakeside Ash Ponds would be underwater during a 100-year flood? Is it your testimony that Interstate 55 and

portions of East Lake Shore Drive at the Spaulding Dam would be underwater in a 100-year flood?

- a. What is your opinion based on other than the map you have drawn?
 - b. Are there any photos or satellite images that support your conclusion?
 - c. Are you aware of a flood of record when any of these areas were under water?
6. Do you agree that the legislature intended to establish a requirement for a closure alternatives analysis that must be reviewed by Illinois EPA on a case-by-case basis?
7. Do you agree that the legislature chose not to regulate landfills in the Coal Ash Pollution Prevention Act [P.A. 101-171]?
8. If the Board accepts your recommendation to include landfills in this rulemaking at Second Notice, how will a facility that only uses dry ash handling and a landfill receive notice that this rulemaking would be applicable to them?
9. You testify on page 10 that 13 power plants "all have rail spurs located on the property (in most cases) or less than a mile way [sic] (in a few cases)." Which statement applies to the Dallman and Lakeside ash pond site?
10. Who developed the information in Attachment 18? When was it developed?
- a. Is it your testimony that the Dallman and Lakeside ash ponds have access to rail?
 - b. Do you believe that the Dallman power plant has access to rail?
 - c. Do you have any knowledge of whether the rail line you identify in Springfield on Attachment 18 has been maintained?
 - d. Do you agree that this abandoned rail spur passes through and terminates in a residential neighborhood that is identified by Illinois EPA as an area of environmental justice concern?
 - e. Are you aware of whether there is a functioning rail bridge across Interstate 55 at this location?

- f. Have you confirmed whether any of the active, permitted landfills in Illinois identified by blue squares in Attachment 18 would be able to accept disposal of coal ash via rail?
 - g. Have you determined which of these landfills are able and willing to accept CCR and in what quantities?
 - h. Of the landfills able and willing to accept CCR, have you determined how many are located in areas of environmental justice concern?
 - i. Of the landfills able and willing to accept CCR, have you evaluated how many are located in unstable areas or other areas not meeting the location restrictions identified for impoundments in Part 845?
 - j. What impact would widespread landfilling of CCR material in Illinois have on the costs paid by municipalities for disposal at the same landfills?
11. You testify on Page 6 that "industry reports I reviewed showed ash ponds at ... Dallman ...to be within 10% of the minimum required safety factor for one or more loading conditions."
- a. Are you referring to the Dallman Ash Pond in this statement?
 - b. Do you agree that a safety factor is already included in these calculations to address this concern?
 - c. Do you agree that the Dallman and Lakeside Ash Ponds analyzed under worst case conditions of the ash and pool elevation matching the top of the embankment? If you disagree, explain why.
 - d. Do you agree that safety factors for the Dallman and Lakeside Ash ponds could only increase as they are dewatered and closed? If you disagree, explain the basis for your disagreement.
12. You have included the updated version of Bulletin 70 from 2019 as Attachment 41 to your testimony. Have the 1 Hour, 100 Year Storm values for the southern half of Illinois actually decreased slightly since the 1989 edition?
13. On pages 11-12 you testify that "A spatial map of the bottom elevation of the coal ash in impoundments should be included with the groundwater elevation measurements reported in the hydrogeological investigations." Explain what you mean by this type of "spatial map"?

Questions for Scott Payne and Ian MacGruder

1. How many samples of water within different horizontal and vertical locations of a CCR impoundment do you believe would be adequate for development of model assumptions?
2. Are you requiring "at least" daily groundwater elevation measurements upgradient and downgradient at every site in order to develop a site characterization? How long must this type of monitoring be implemented for before a characterization can begin?
3. What is the difference in your proposed Section 845.220(c)(2)(B) between "estimates informed by site characterization data" which are allowed and "assumptions" which are not allowed?
4. Is the intent of Section 845.220(c)(2)(C) to make sure calibration targets are defined before modelling and not during modelling? If not, explain the intent of this Section. If so, explain how this will be documented or enforced.
5. Explain the difference between "calculated" leachate flux and "modeled" leachate flux in proposed Section 845.220(c)(2)(F). Is this different than "statistically supportable data for CCR leachate concentration measured from porewater" in proposed Section 845.620(b)(13)?
6. In the proposed rule changes included in your testimony, you recommend the Board require certain sites to perform a "model forecast uncertainty analysis". When would it be determined which sites must perform this analysis? Who would determine? How long will the analysis take?
7. Is the list of modeling documentation provided in your new subsection 845.220(c)(2)(H) an exhaustive list of precisely the modeling documentation that must be provided or is this a list of examples of the type of information that should be provided?

Respectfully submitted,

THE CITY OF SPRINGFIELD,
a municipal corporation

By Deborah J. Williams
One of its Attorneys

Dated: September 10, 2020

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CERTIFICATE OF SERVICE

The undersigned, Deborah J. Williams, an attorney, certifies that I have served upon the individuals named on the attached Service List a true and correct copy of the **NOTICE OF FILING** and **PREFILED QUESTIONS OF THE CITY OF SPRINGFIELD, OFFICE OF PUBLIC UTILITIES d/b/a/ CITY WATER, LIGHT AND POWER**, from the email address deborah.williams@cwlp.com of this 14 page document before 5:00 p.m. on September 10, 2020 to the email address provided on the attached Service List.

Deborah J. Williams

SERVICE LIST R20-19

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