

ILLINOIS POLLUTION CONTROL BOARD  
June 11, 2014

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**JUN 11 2014**

IN THE MATTER OF: )  
)  
COAL COMBUSTION WASTE (CCW) ) R14-10  
SURFACE IMPOUNDMENTS AT POWER ) (Rulemaking - Water)  
GENERATING FACILITIES: PROPOSED )  
NEW 35 ILL. ADM. CODE 841 )

STATE OF ILLINOIS  
Pollution Control Board

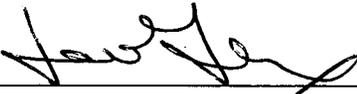
**HEARING OFFICER ORDER**

At the conclusion of the second hearing on May 15, 2014, the participants had not addressed each of the questions pre-filed by the Illinois Environmental Protection Agency (Agency) for the Environmental Groups' witnesses or the Board's questions based on the Agency's March 25, 2014 comments. Participants also wished to question the Environmental Groups on their changes to the Agency's proposed rules.

A hearing officer order dated May 21, 2014, scheduled an additional hearing beginning May 18, 2014. That order intended to begin the hearing by continuing to address the Agency's pre-filed questions for the Environmental Groups. The hearing officer then intended to address the Board's questions based on the Agency's March 25, 2014 comments. The Agency prepared written answers to those questions, which were admitted into the record as Hearing Exhibit 32. Next, the hearing officer intends to address participants' questions to the Environmental Groups based upon their May 13, 2014 changes to the Agency's proposed rules. On June 9, 2014, the Environmental Groups filed comments concerning their proposed revisions (PC 1879).

To expedite the hearing and make it more efficient, the hearing officer strongly encouraged participants who wish to ask questions about the Environmental Groups' proposed changes to pre-file those questions no later than Wednesday, June 11, 2014. The Board and its staff have reviewed the Agency's proposal and responses and the Environmental Groups' proposals and comments concerning it. The Board poses the questions attached to this order as Attachment A. The Board directs the Agency and Environmental Groups to prepare to respond to them at the hearing beginning on June 18, 2014. Participants preparing written answers may pre-file them with the Board's Clerk or submit them at hearing. The Board may raise follow-up questions in the course of the first hearing.

IT IS SO ORDERED.

  
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## Attachment A to Hearing Officer Order of June 11, 2014

### Questions for the Agency

#### Section 841.105(a)

1. Section 841.105(a) sets forth, “Except as specified in subsection (b) of this Section, this Part applies to all surface impoundments at power generating facilities containing coal combustion waste or leachate from coal combustion waste that are: (1) operated on or after the effective date of these rules; or (2) not operated after the effective date of these rules, but whose coal combustion waste or leachate from coal combustion waste causes or contributes to an exceedence of the groundwater quality standards on or after the effective date of these rules.”
  - (a) In response to Board’s question No. 13(a) (Hearing Officer Order, February 5, 2014), the Agency stated that “not operated” after the effective date of the rules means that the surface impoundment is not receiving any kind of waste or stormwater. Exh. 3, Attach. 1 at 9. Please comment on whether an impoundment “not operated” after the effective date of the proposed rules should have also initiated closure in accordance with an Agency approved closure plan to be exempted from Part 841.
  - (b) If closure initiation is not required for an impoundment to be exempt under subsection 841.105(a)(2), please comment on whether a surface impoundment exempt under subsection (a)(2) would become subject to Part 841 regulations if the impoundment resumes operation sometime after the effective date of these regulations even if it is not causing or contributing to an exceedence of the groundwater quality standards.
  - (c) Please explain what closure requirements would apply to CCW surface impoundments exempt under subsection 841.105(a)(2) when owners or operators decide to close such facilities. If such closure requirements are similar to the proposed closure requirements for CCW impoundments not impacting groundwater under Section 841.Subpart D, explain the rationale for not requiring CCW impoundments exempt under subsection 841.105(a)(2) to comply with the proposed closure requirements under Part 841, Subpart D.
  - (d) If the exemption under subsection 841.105(a)(2) is intended to “grandfather” existing impoundments, which are “not operating” and not impacting groundwater from the proposed regulations, please comment on whether that exemption should apply only if such facilities have initiated closure pursuant to any existing closure plan before the effective date of the proposed regulations.

#### 841.110 Definitions

2. “Surface impoundment” is defined in 35 Ill. Adm. Code 720.110 and 810.103 somewhat differently than the Agency’s proposed definition in 841.110. The definition in section 720.110 tracks USEPA’s proposed definition of “CCR surface impoundment”, while the definition in section 810.103 makes the distinction that “a surface impoundment is not a

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landfill.” 75 FR 35239-35240. The Environmental Groups have suggested including this distinction specifically for permitted landfills. Env. Groups Post Hearing Comments (June 9, 2014). To differentiate a surface impoundment under proposed Part 841 from other parts, please comment on providing a definition specifically for a “coal combustion waste surface impoundment” under the newly proposed Part 841, and whether it should track USEPA’s proposed language more closely and distinguish it from permitted landfills.

3. In response to the Board’s question No. 21(b) and (c) (Hearing Officer Order, February 5, 2014), the Agency suggested revised language for the definition of “Compliance point”, but the spatial description still seems a bit unclear. Instead of the language suggested, would the Agency please comment on the following or suggest revised language again?

“Compliance point” means any point in the groundwater designated at a lateral distance of 25 feet from the uppermost outer edge of the unit projected vertically downward, or the property boundary, whichever is less, to and a depth of 15 feet from the deepest part bottom of the unit or 15 feet below the groundwater table, whichever is greater....

### Section 841.415 Final Slope and Stabilization

4. The Environmental Groups stated that, under the Agency’s proposed section 841.420, CCW used in establishing the final grade and slope for the unit and earthen berms surrounding the unit would not necessarily be covered by the final cover system. As such, the Environmental Groups expressed concern that the proposed final cover system would not specifically require erosion of berms containing CCW to be minimized. The Environmental Groups cite to Dr. Soderberg’s testimony that this could lead to exposed CCW on the berms. PC 1879 at 18-19. Are there any revisions you would suggest for proposed Section 841.420 Final Cover System to clarify the reach of the final cover system to encompass all CCW used in establishing the final grade and slope?
5. In response to question 43(c) in the Board’s Hearing Officer Order dated February 5, 2014, the Agency stated, “[I]n 2013, the Agency discussed with IDNR [Illinois Department of Natural Resources] including a reference to the dam safety regulations [35 Ill. Adm. Code 3702] in the proposed rule to ensure any work done on the impoundment dams would comply with the dam safety regulations.” Exh. 5 at 22. The latest proposal from the Agency doesn’t appear to reference the dam safety regulations. Please comment on including a reference to IDNR’s dam safety regulations in proposed Section 841.415 or elsewhere, and consider suggesting language.

### 841.400 Surface Impoundment Closure

6. Under Section 841.400(b), the Environmental Groups’ proposal would require removal of CCW upon closure unless “that removal is technically infeasible or would not result in greater protection of human health and the environment”, except where units are present in the water table, floodplain, wetland, or above mine or fault. PC 1879 at 841.400(b).

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USEPA's proposal (June 21, 2010) would allow closure of a CCW surface impoundment with CCW in place or through CCW removal and decontamination, with no specific limitations. Proposed 40 CFR 257.100(b) and (c), 75 FR 35252.

USEPA states, "Although [US]EPA anticipated that facilities will most likely not clean close their units, given the expense and difficulty of such an operation, [US]EPA believes that they are generally preferable from the standpoint of land re-use and redevelopment, and so wishes to explicitly to allow for such action in the proposed subtitle D rule." 75 FR 35208.

In determining whether to remove CCW or close in place, USEPA states, "One tool that can be used to help evaluate whether waste removal is appropriate at the site is the risk-based corrective action process (RBCA) using recognized and generally accepted good engineering practices such as the ASTM Ec0-RBCA process." 75 FR 35208.

The Agency has stated, "The Agency does not support the use of the Tiered Approach to Corrective Action Objectives [TACO] rules (35 Ill. Adm. Code Part 742) under proposed Part 841." Agency Post Hearing Comments (4-30-14), Att. 1 at 1. Instead, the Agency supports the use of the Part 620 groundwater quality standards "because of its focus on groundwater protection, which contrasts with the TACO rules' focus on the cleanup of existing contamination." *Id.*

- (a) In developing a closure plan and evaluating whether to remove CCW or close in place, please comment on the plausibility of using a risk-based approach or a different approach that would, among other things, address location issues such as those raised by the Environmental Groups (i.e. in the water table, floodplain, wetland, or above mine or fault).
- (b) Although the Agency doesn't favor using TACO for corrective action at a CCW site, could a risk-based approach, like TACO, be used to identify and exclude migration pathways and human or ecological receptors in evaluating whether CCW removal would be appropriate or would result in "greater protection of human health and the environment". PC 1879 at 841.400(b).
- (c) If the Agency believes a risk-based approach would be appropriate for evaluating whether to remove CCW or close in place, taking into consideration location factors and migration pathways, would the Agency please consider proposing language?
- (d) If the Agency believes a different approach would be appropriate for evaluating whether to remove CCW or close in place, would the Agency please consider proposing language?

### **841.400(d) Deed notation**

7. USEPA's proposed rules at 40 CFR 257.72 for new CCW surface impoundments would require "A permanent identification marker, at least six feet high and showing the

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identification number of the [CCW] surface impoundment, if one has been assigned by the state, the name associated with the [CCW] surface impoundment and the name of the person owning or operating the structure. . . .” 75 FR 35244. Please comment on whether the Agency believes including a similar provision as part of the closure process would be beneficial in addition to the deed notation. If so, please suggest proposed language.

### Section 841.405 Closure Prioritization

8. USEPA’s proposed rules at 40 CFR 257.65(a) include a provision that “Existing [CCW] . . . surface impoundments that cannot make the demonstration specified in [40 CFR] 257.64(a) pertaining to unstable areas, must close by [date five years after the effective date of the final rule]. . . .” 75 FR 35243. The demonstration pertaining to unstable areas under proposed 40 CFR 257.64 requires “that engineering measures have been incorporated into the . . . surface impoundment . . . design to ensure that the integrity of the structural components of the . . . surface impoundment will not be disrupted.” 75 FR 35242. Should closure prioritization under proposed section 841.405 include a requirement that CCW surface impoundments make a similar demonstration?

### Design Criteria

9. In response to the Board’s question No. 7(g) (Hearing Officer Order, February 5, 2014), the Agency stated that “including design criteria for new CCW surface impoundments is a good idea” and that the Agency “would like to conduct outreach and gather input from the regulated community and environmental groups to develop design criteria.” Exh. 5 at 5. The Agency indicated that a starting point would most likely be 35 Ill. Adm. Code 370, and that the Board could reserve Sections 841.200 through 841.300 for future design criteria.
- (a) Did the Agency mean 35 Ill. Adm. Code 370 Illinois Recommended Standards for Sewage Works?
  - (b) Can the Agency describe a tentative schedule for conducting outreach, gathering input, and potentially proposing design standards?
  - (c) During that time, does the Agency expect the filing of permit applications for new CCW surface impoundments? If so, can the Agency estimate how many?
  - (d) Please explain what the Agency might do to ensure potential design criteria are considered for new CCW surface impoundments in the meantime.
  - (e) Please explain if the Agency believes adoption of the proposed rules should wait for the completion of the outreach process on design criteria or if proceeding without the design criteria at this time would allow the rules to more promptly address the most pressing issues regarding existing CCW surface impoundments.

### Questions for the Environmental Groups

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### Section 841.105 Applicability

11. The proposed subsection (c) sets forth that a unit exempted from Part 841 pursuant to subsection (b) is required to maintain records demonstrating how the exemption in subsection (b) applies. In addition to maintaining records, please comment on whether a unit that is exempt pursuant subsection (b)(2) should be required to comply with the proposed closure requirements of Part 841 Subpart D when the owner or operator of such a unit decides to close the unit.

### 840.130 Compliance Period

12. If closure is not presently being contemplated, please explain the rationale for suggesting that the proposed rules require the owner or operator of a unit in operation before the effective day of the proposed subpart to submit a “closure plan, and post-closure care plan” within one year of the effective date.

### Section 841.135 Recordkeeping

13. Please explain the rationale for increasing the retention time period for an approved closure report from 10 years to 30 years at subsection (a)(6).

### Section 841.150 Modification of Existing

14. The proposed change to this section requires an owner or operator to submit a revised preventive response, corrective action, or closure plan to the Agency within 90 days if an application to revise an operating permit or NPDES permit is denied by the Agency. Please comment on whether the proposed change limits the owner or operator’s option to appeal the Agency’s denial to the Board.

### Section 841.170 Inspection

15. The proposed subsection (e) requires owners or operators of units that have incorporated earthen dams in their design to “install, maintain, and monitor instruments to monitor the water content or pore water pressures within the earthen dam.” Exh. 21 at 15.
  - (a) Please clarify whether the monitoring of moisture content or pore water pressure is intended to provide indication of dam stability or some other information.
  - (b) If so, is there a moisture content or pore water pressure threshold above which an owner or operator may have to take any response actions?
  - (c) Also, comment on whether parameters concerning dam safety issues, including any monitoring of moisture content or pore water pressure, is addressed by the Illinois Department of Natural Resources as part of its dam safety program.

### Section 841.165 Public Notice

16.
  - (a) Under the Environmental Groups’ suggested Section 841.165(c), please explain the reasoning behind suggesting the Agency hold a “public informational meeting” in addition to posting notice on its webpage and accepting written comments from the public.

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- (b) In holding a public informational meeting, the Environmental Groups suggest the Agency not be “required to comply with the procedures of 35 Ill. Adm. Code Part 164” Procedures for Informational and Quasi-Legislative Public Hearings. Please comment what type of procedure the Agency would be expected to follow and if such procedure is currently codified anywhere in the rules.

### 841.230 Sampling Frequency

17. Under suggested section 841.230(c)(3), please explain the reasoning for not allowing monitoring frequency to be reduced for total dissolved solids.

### 841.400 Surface Impoundment Closure

#### 18. 841.400(b)

The Environmental Groups’ proposal would require removal of CCW upon closure unless “that removal is technically infeasible or would not result in greater protection of human health and the environment”, except where units are present in the water table, floodplain, wetland, or above mine or fault. PC 1879 at 841.400(b).

Section 27(a) of the Act directs the Board to take into account the “technical feasibility and economic reasonableness of measuring or reducing the particular type of pollution” when conducting a substantive rulemaking. 415 ILCS 5/27(a) (2010). Section 27(b) of the Act requires the Board to determine whether a proposed substantive regulation “has any adverse economic impact on the people of the State of Illinois.” 415 ILCS 5/27(b) (2010).

- (a) Please describe ways CCW could be completely removed from a surface impoundment.
- (b) Please describe circumstances when such removal could be technically infeasible.
- (c) Please provide cost information for accomplishing complete CCW removal for the purposes of closure as proposed by the Environmental Groups.
- (d) Please also address how those costs would impact the people of the State of Illinois.

### Section 841.405 Closure Prioritization

19. Please elaborate on the reasoning for the suggested changes to Section 841.405 to reduce the number of proposed categories for closure prioritization from four to two.

### Section 841.450 Design Standards for New and Existing Impoundments

20. Please clarify whether the proposed design standards should be subject to the construction quality assurance program specifies at Section 841.155. If so, please propose changes to Section 841.155 to include design standards under the CQA program.

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21. Please clarify whether the liner hydraulic conductivity must be tested to demonstrate compliance with the proposed hydraulic conductivity requirement of less than  $1 \times 10^{-7}$  cm/sec. If so, comment on the methods that may be used to make the permeability determination.
22. The proposed design standards require existing and new impoundment units to be constructed with composite liners and leachate collection system, but the standards do not prescribe any standards or specification for leachate drainage and collection system. Please clarify whether the design standards should include standards for leachate drainage and collection system. If so, please propose additional design standards for leachate drainage and collection system.
23. Although the Environmental Groups state their proposed design standards for new and operating CCW units were derived from USEPA's proposed rules for existing impoundments under Subtitle D, the design standards do not address USEPA's proposed "Location Restrictions" for new CCW surface impoundments under proposed 40 CFR 257.60-257.64 (75 FR 35241-35243), covering placement above the natural water table, wetlands, fault areas, seismic impact zones, and unstable areas. PC1879 at 10. Please comment on potential design criteria for new CCW surface impoundments that would incorporate location restrictions.

**Subpart F: Financial Assurance**

24. The Environmental Groups have proposed a new Subpart F: Financial Assurance.
  - (a) Please identify financial assurance requirements in other Parts of the Board's rules and the corresponding statutory authority in the Illinois Environmental Protection Act (Act).
  - (b) Please indicate if there are any financial assurance requirements in the Board's rules that are not derived from the Environmental Protection Act.
  - (c) As mentioned above, Section 27(a) of the Act directs the Board to take into account the "technical feasibility and economic reasonableness of measuring or reducing the particular type of pollution" when conducting a substantive rulemaking. 415 ILCS 5/27(a) (2010). Section 27(b) of the Act requires the Board to determine whether a proposed substantive regulation "has any adverse economic impact on the people of the State of Illinois." 415 ILCS 5/27(b) (2010).
    - (i) Please provide information on expected costs for owners or operators of CCW surface impoundments to provide financial assurance to cover closure and post-closure care as would be required by the Environmental Groups' suggested Subpart F.
    - (ii) Please also address how those costs would impact the people of the State of Illinois.