BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

In the Matter of:	)	
	)	
STANDARDS FOR THE DISPOSAL OF	)	R 2020-19
COAL COMBUSTION RESIDUALS IN	)	(Rulemaking -Land)
SURFACE IMPOUNDMENTS:	)	
PROPOSED NEW 35 ILL. ADM.	)	
CODE PART 845	)	

NOTICE OF FILING

TO: All Parties on Attached Service List

PLEASE TAKE NOTICE that I have today electronically filed with the Office of the Clerk of the Pollution Control Board the Pre-Filed Testimony of Gary P. King, copies of which are herewith served upon you.

Respectfully submitted,
AmerenEnergy Medina Valley Cogen, LLC and Union Electric Company, d/b/a Ameren Missouri

Dated: August 27, 2020 By: /s/ Claire A. Manning

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CERTIFICATE OF SERVICE

The undersigned, an attorney, certifies that a true copy of the foregoing Notice of Filing, and Pre-Filed Testimony of Gary King, were electronically filed on August 27, 2020 with the following:

Respectfully submitted,
AmerenEnergy Medina Valley Cogen, LLC and Union Electric Company, d/b/a Ameren Missouri

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PRE-FILED TESTIMONY OF GARY KING

I. QUALIFICATIONS

My name is Gary King. I am employed by the consulting firm Arcadis U.S. I have been employed with Arcadis U.S. since February 2012. Prior to joining Arcadis U.S. I was employed by the Illinois Environmental Protection Agency ("Illinois EPA") as the Manager of the Division of Remediation Management for the Bureau of Land. From 1990 through 2011, I was the senior manager for the Illinois EPA site cleanup programs: the voluntary cleanup program (also known as the Site Remediation Program), federal and Superfund cleanup programs, the Department of Defense cleanup program and the Leaking Underground Storage Tank program. Prior to 1990 I managed the Illinois EPA land enforcement programs. From 2001 to 2008, I served as the Chair of the CERCLA and Brownfields Subcommittee for the Association of State and Territorial Solid Waste Management Officials, and I was a recipient of the Association's "Lifetime Achievement Award" in 2012.

While at Illinois EPA I led the development of multiple regulatory programs concerning the cleanup and closure of sites. I have testified in numerous regulatory proceedings before the Board. I lead the development of the original 35 Ill. Adm. Code Part 742; Tiered Approach to Corrective Action Objectives, or TACO. I testified at all the subsequent Board rulemakings on TACO until 2011. I testified in R08-18 with regards to interaction between Part 620 and TACO.

I led the development of regulations establishing the Board rules for the Leaking Underground Storage Tank ("LUST") program contained 35 Ill. Adm. Code 732 and 734. I testified at all the Board regulatory hearings on the LUST Program from 1994 -2011. I led the development of the Site Remediation Program rules in Part 740 and testified before the Board in support of those rules.

I most recently testified before the Board in R14-10 Coal Combustion Waste (CCW) Ash Ponds and Surface Impoundments at Power Generating Facilities: Proposed New 35 Ill. Adm. Code 841. The purpose of my testimony in R14-10 was to provide comments and clarification regarding Ameren facilities at Hutsonville, Meredosia and Venice subject or potentially subject to the proposed new Part 841. In that rulemaking, I also provided an update on Ameren's progress in closing Hutsonville Pond D. That closure was conducted pursuant to the Board's rules at Part 840, effective January 20, 2011. Those rules resulted from a site-specific rulemaking filed by Ameren. I also provided testimony in R13-09, a site-specific rulemaking Ameren filed seeking the closure of 16 ash ponds at 8 facilities in Illinois that it then owned. Ameren withdrew the rulemaking when the Illinois EPA decided to file R14-10 as a rule of general applicability. R14-10 was recently closed by the Board.

I am an attorney licensed to practice law in Illinois. I received a Juris Doctor degree from Valparaiso University and a Bachelor of Sciences degree in Civil Engineering, also from Valparaiso University.

II. AMEREN'S EFFORTS IN SUCCESSFULLY CLOSING CCR SURFACE IMPOUNDMENTS AT HUTSONVILLE, MEREDOSIA, AND VENICE FACILITIES.

My testimony in this proceeding provides information relative to Ameren's progress in completing closure of its CCR surface impoundments. This information includes steps Ameren took in closing the CCR surface impoundments and costs related to those closures. The cost

information is provided to assist the Board in evaluating the economic reasonableness of the proposed Part 845 rule. My testimony provides information and comments relative to the impacts of proposed Part 845 on the closures that Ameren has completed. My testimony also discusses proposed revisions to Part 845.

Ameren has worked cooperatively with the Illinois EPA for over a decade to effectively and efficiently close CCR surface impoundments at its Venice, Hutsonville and Meredosia facilities in a manner that protects human health and the environment. Since Ameren ceased operations at Venice, Hutsonville and Meredosia prior to October 19, 2015, 40 C.F.R. Part 257 did not apply. No state regulation compelled Ameren to proceed; yet, Ameren sought state regulation to guide its closure. Ameren's closures were achieved through extensive review, input, and approval of the Illinois EPA, and include use of final cover systems and closure by removal. Documentation of the Illinois EPA approval of closure is included as Ameren Exhibit A.

Ameren's success in completing closures is also documented by the Illinois EPA on Page 181 of its Pre-Filed Answers, which was produced in response to Board questions in this proceeding. The Illinois EPA provided the list in response to the Board's request that it identify surface impoundments the Illinois EPA believes will be covered by the proposed rule. Illinois EPA testimony confirms that the Exhibit is actually a list of ash ponds which it formerly regulated as water treatment units ("units"). *Illinois EPA's First Supp. Pre-Filed Answers*, p. 6; *See also* Aug. 11, 2020 Hrg. Tr., pp. 30:17–31:10. The Illinois EPA's list includes former ponds that do not meet the definition of CCR surface impoundment provided for in Section 3.143 of the Illinois Environmental Protection Act ("Act"), as adopted in P.A. 101-171 (eff. July 30, 2019). According to the Illinois EPA's list, there is only one non-Ameren CCR surface impoundment on its list of 73 regulated units that has completed closure. The Illinois EPA list recognizes that of the ten

identified units that Ameren owns, six have completed closure; the Illinois EPA's list fails to recognize four other units that either have completed closure or should be considered closed in the Board's Part 845 rules. Specifically, the Illinois EPA's list contends, incorrectly, that while Hutsonville B, C and Bottom Ash had the CCR removed, they have not completed closure. Additionally, the Illinois EPA's list declines to identify the Old Ash Pond at Meredosia as closed. Further, even though *all* of Ameren's former ash ponds are now closed, the Illinois EPA's rules as proposed would only recognize the two at Venice and Hutsonville Pond D as closed.

As discussed later in my testimony, these characterizations, and Illinois EPA's proposed rules, are seriously flawed in several respects, including: defining "closed" as requiring closure pursuant to an Illinois EPA approved closure plan to have been completed prior to the effective date of 40 C.F.R. Part 257, a federal rule that has never applied to these Ameren units; characterizing ponds that have closed by removal prior to the effective date of proposed Part 845 as surface impoundments; requiring ponds that have closed by removal pursuant to an Illinois EPA approved closure plan to now conduct three years of groundwater monitoring as required by proposed Rule 845.740(b); including Hutsonville Pond D in its proposed rules, since it is already regulated through Part 840 of the Board's regulations; and including the Old Ash Pond at Meredosia as an unclosed CCR surface impoundment.

Further, Ameren offers specific language to provide accountability to the Illinois EPA as it reviews and oversees its CCR regulatory program, based upon language the Board adopted in the state's Site Remediation program.

A. Status of Hutsonville Ponds A, B, C, and Bottom Ash Pond

Ameren's Hutsonville facility stopped generating electricity in 2011. Ponds A, B, C, and the Bottom Ash Pond stopped receiving ash for disposal in December 2011.

Ash Pond A was operational from 1986 until the plant ceased operations in December 2011. The pond was constructed with an 80 mil high-density polyethylene (HDPE) liner. The pond contained fly ash within an area of approximately 12 acres.

Ash Pond B, also an HDPE-lined pond, was placed in service in 2000 to receive sluiced fly ash and bottom ash. Ash Pond B had a surface area of approximately 4.4 acres.

Ash Pond C was an HDPE-lined pond placed in service in 2000 to receive sluice water from the Bottom Ash Pond. Ash Pond C was incised with a surface area of approximately 2 acres.

The Bottom Ash Pond was put into service in 1969 to receive bottom ash. It did not have a geomembrane liner. The Bottom Ash Pond had a surface area of approximately 1.2 acres.

Ameren submitted a Closure Plan for Ponds A, B, C and Bottom Ash Pond on October 23, 2014. The Plan included a Groundwater Monitoring Program and a Post-Closure Care Plan. Ameren modified the plans on February 25, 2015 in response to Illinois EPA comments. The Illinois EPA approved the Plan on April 8, 2015.

The Closure Plan provided for clean closure of Ponds B, C, and the Bottom Ash Pond by removal. In summary, the closure activities for the three clean-closure ash ponds included: removal of CCR, removal of geomembrane, grading, construction of surface water control structures, and vegetation.

The closure activities for Ash Pond A included: placement of CCR from the three clean-closure ash ponds, CCR subgrade grading, CCR subgrade compaction, placement of 40-mil HDPE geomembrane, placement of a three-foot thick final cover soil layer, construction of surface water control structures, and vegetation. As required in the CQA Plan, a scheduled program of monitoring, inspecting, sampling, and testing was performed.

CCR was removed from Ash Pond B, Ash Pond C, and the Bottom Ash Pond to effectuate

clean closure of these ponds, which included dewatering, removal of the liner systems, and removal of CCR. A Construction Quality Assessment ("CQA") representative periodically observed the CCR removal activities to assess the completeness of CCR removal. A CQA representative is a technical consultant hired by Ameren to assure construction is completed in accordance with the closure plan as submitted by Ameren and approved by the Illinois EPA. Regarding Ash Pond B, Ash Pond C and the Bottom Ash Pond, while the Illinois EPA's list states "removal Nov. 2016", that date simply refers to the date the CQA documentation was provided to the Illinois EPA. As documented in the CQA, the CCR removal began on June 4, 2015 and concluded on September 24, 2015.

The CCR removed from Ash Pond B, Ash Pond C, and the Bottom Ash Pond was placed in Ash Pond A. After the CCR was removed, the ponds were brought to final grade, storm water controls were installed, and the former ponds were vegetated.

After Ash Pond B, Ash Pond C, and the Bottom Ash Pond were brought to final grade, they were fertilized and seeded using synthetic mats and straw as needed to establish vegetation. Under the Closure Plan, clean closure was determined by a geo-technical evaluation; no constituent sampling was required.

The Closure Plan provided for closure of Pond A with a synthetic cap. Subgrade preparation for Pond A began on May 11, 2015 and was completed on October 30, 2015. In summary, subgrade preparation activities consisted of placing CCR material excavated from Ash Pond B, Ash Pond C, and the Bottom Ash Pond, placing spoils excavated from the Coal Yard, grading CCR in Ash Pond A, compacting the top 1 foot of subgrade material, performing compaction testing, and surveying the final subgrade elevations. Geomembrane placement began on October 30, 2015 and was completed on November 13, 2015.

After the geomembrane was constructed, 3 feet of final cover (soil) was placed over the 40-mil HDPE geomembrane. Soil grading began on November 23, 2015. On December 22, 2015, the protective cover was winterized for completion in the spring. Protective cover placement, shaping, and grading resumed on April 6, 2016 and were completed on June 6, 2016.

Ameren sent a report to the Illinois EPA on November 21, 2016 documenting completion of closure for Ponds A through C and the Bottom Ash pond under the Illinois EPA approved closure plan. The Illinois EPA approved the closure completion report on March 30, 2017. Pursuant to the approved Closure Plan, Ameren submits Annual Reports documenting post-closure activities. The Illinois EPA has provided no further input to Ameren related to its post-closure activities documented in these reports. Ameren expended $4.1 million to close Ponds A, B, C and Bottom Ash Pond.

The Closure Plan for Pond A included a Groundwater Monitoring Program that specified eleven groundwater monitoring wells, upgradient and downgradient, to be monitored for purposes of monitoring compliance with ground water standards. The Illinois EPA approved the Groundwater Monitoring Plan without requiring groundwater monitoring specific to Pond B, C, or Bottom Ash Pond that were closed by removal, and the Illinois EPA has never requested that Ameren initiate site specific groundwater monitoring for any of these three ponds.

No Board rule required Ameren to monitor groundwater conditions specific to these three impoundments as a condition of closure by removal. 40 CFR Part 257, as currently in effect, does not require pond-specific groundwater monitoring to demonstrate closure by removal. Moreover, in my opinion such monitoring would provide little to no environmental benefit as the groundwater monitoring system currently in place is sufficient to capture any impact from the areas that formerly contained CCR and will be identified through the post-closure plans in place for Pond A.

The Illinois EPA has proposed a rule at Section 845.740(b) that requires groundwater monitoring for three years to demonstrate completion of closure by removal. Based upon Illinois EPA testimony, it appears that the Illinois EPA is poised to apply this rule to Ameren's three ponds that have been closed by removal. The Illinois EPA has provided no factual or legal basis for its apparent conclusion that a closure completed in 2016 should not be considered complete based upon a federal rule proposed in 2020, that was never applicable to Ameren and continues to be proposed, not promulgated. On Page 139 of its response to questions, the Illinois EPA concedes that it will have to delete Section 845.740(b) if USEPA does not promulgate the final rule by the close of the record in this proceeding.

Based on the Illinois EPA's proposed definitions, and Section 845.101(d), the Illinois EPA classifies Hutsonville Ponds A, B, C, and the Bottom Ash Pond as existing CCR surface impoundments because closure was not completed by October 19, 2015. As "existing CCR surface impoundments", these impoundments would be required to go through the Subpart G closure process as if they had not already been closed under Illinois EPA approval. This means that the characterization and closure requirements of Subpart G would now apply to these sites even though Ameren completed their closure under an Illinois EPA approved plan years ago. A CCR surface impoundment that has been approved by the Illinois EPA as having completed closure prior to the effective date of Part 845 should not have to go through the closure process a second time. A CCR surface impoundment that completed closure prior to the effective date of Part 845 should have the same status as an inactive closed CCR surface impoundment subject to Section 845.170.

B. Status of Hutsonville Pond D.

Hutsonville Pond D stopped receiving ash for disposal in December 2011. Illinois EPA approved Ameren's closure plan for Pond D on April 18, 2012, pursuant to Part 840. Ameren completed capping of the Hutsonville Pond D in January 2013 and sent a letter to the Illinois EPA

on January 30, 2013 documenting completion of closure for Pond D consistent with the Illinois EPA's approved closure plan. The final cover system included a 40 mil HDPE geomembrane liner plus three feet of soil to establish vegetation. Ameren submitted its first annual Post-Closure Care report in January 2014. The Board's Part 840 rules provided a roadmap for Ameren in its future closures at Hutsonville and Meredosia. Ameren expended $5.3 million to close Hutsonville Pond D.

Under the Illinois EPA proposal, Pond D is classified as an Inactive Closed CCR surface impoundment. While Ameren does not dispute that characterization under the proposed rules, Ameren disputes whether any aspect of Part 845 should apply to Pond D since the Board's Part 840 already applies. As post-closure care is already governed by that state regulation, the conflicting regulatory program proposed here is duplicative and unnecessary from an environmental protection or regulatory perspective.

C. Status of Meredosia Fly Ash and Bottom Ash Ponds

The Meredosia facility stopped generating electricity in 2011. The Fly Ash Pond and the Bottom Ash Pond stopped receiving ash for disposal in December 2011. Ameren submitted a revised Closure Plan to the Illinois EPA on February 16,2017. The Plan included closure of the Bottom Ash Pond by removing the ash and placing it in the Fly Ash Pond. The Plan provided for closure of the Fly Ash Pond with a final cover system. The Illinois EPA approved the Plan on March 8, 2017. The ash pond closure project was substantially complete on December 5, 2018. Ameren submitted the CQA Closure Completion Report on January 31, 2019. Pursuant to the approved Plan, Ameren began submitting Annual Reports documenting post-closure activities in March 2020. Ameren expended $12.0 million to close the Fly Ash and Bottom Ash Ponds.

Under the Illinois EPA's proposal, the Fly Ash Pond and the Bottom Ash pond are classified as an Inactive CCR surface impoundment (not Inactive Closed CCR surface

impoundments) since it did not close prior to October 19, 2015. As a result, according to proposed 845.100(d), the requirements that apply to existing surface impoundments apply to these Meredosia Ponds. This means that the characterization and closure requirements of Subpart G would now apply to these sites even though Ameren completed their closure under an Illinois EPA approved plan in 2019—at a cost of $12 million.

Ameren disputes the Illinois EPA's characterization, as it is unsupportable factually and legally. The Board's adoption of an Illinois EPA proposed rule that would deem these ponds not closed on the effective date of its rules would constitute a retroactive application of law. The Illinois EPA makes this distinction based on the effective date of 40 C.F.R. Part 257—October 19, 2015—without valid justification. As of October 19, 2015, Part 257 was not applicable to any of the Meredosia ponds because it had ceased being a power generating facility. There is no reason given why an Illinois EPA approved closure completed before the effective date of Part 845 should not have the same status as an Illinois EPA approved closure completed before the effective date of 40 CFR Part 257. Ameren should not be required to re-initiate closure or any closure activities, in a construction permit or otherwise in an operational permit, for already closed sites that have been closed pursuant to a closure plan approved by the Illinois EPA. The portion of the Illinois EPA's proposed definition of "closed inactive" that requires completion of closure by October 19, 2015 should not be accepted by the Board. Ameren would not object to the Board's inclusion of the Fly Ash Pond, which continues to contain CCR, as an "inactive closed CCR surface impoundment" subject to Section 845.170 of the proposed rules.

D. Status of Meredosia Old Ash Pond

The Old Ash Pond originally consisted of three ponds, which were constructed in 1948 and removed from service in 1972. The Old Ash Pond was capped in the early 1970's with native materials. At that time, there were no requirements in the Illinois Environmental Protection Act

or regulations under the Act specifying requirements for closure of ash ponds. There was no Illinois EPA program engaged in the regulation or approval of ash pond closures. The Old Ash Pond stopped receiving wastes before October 21, 1976. As such, it falls outside of the federal regulatory system (RCRA) for the disposal of wastes. The Old Ash Pond currently has a forest of trees growing on it. It is not a "pond" at all and poses little to no environmental risk—certainly nothing like the risks related to "legacy ponds" that the D.C Circuit Court referenced in the *USWAG* decision. Old Meredosia is not among the inventory of sites discussed in that case.

Further, the area encompassing the pond is within the groundwater management zone that is in place at Meredosia for the closed surface impoundment there. Any risks from the area will be identified and addressed. The Illinois EPA never asked Ameren to address any issues at the Old Ash Pond, nor did it ever seek to include it in the closure plan upon review and approval.

E. Status of Venice Ponds

The Illinois EPA approved the Closure Plan for the North and South Ponds on May 6, 2011. Cap construction was completed on October 3, 2012. The final cover system included a 40 mil geomembrane liner and double-sided geo-composite panels on top of the liner.

Ameren sent a letter to the Illinois EPA on November 5, 2012 documenting completion of closure under the Illinois EPA approved closure plan, including the CQA Report. Pursuant to the approved closure plan, Ameren began submitting Annual Reports on March 31, 2013 documenting post-closure activities. Ameren has continued to report to the Illinois EPA on post-closure activities annually.

Under the Illinois EPA proposal the North and South Ponds are classified as Inactive Closed CCR surface impoundments, subject to Section 845.170. Ameren does not dispute that characterization.

III. AMEREN'S PROPOSED CHANGES TO ILLINOIS EPA'S PROPOSED RULES.

P.A. 101-0171 has tasked the Illinois EPA and the Board with a significant undertaking—to produce and enact regulations which will govern the operation and closure of CCR surface impoundments in Illinois. Unfortunately, the proposal which the Illinois EPA has produced has significant flaws—particularly as it seeks to go backward and regulate conduct that has already occurred under the sanction of state regulatory structures. Ameren's proposed changes for the Board's consideration are contained in Ameren Exhibit B and described below.

A. The Board Must Decline to Adopt the Illinois EPA's Definition of Inactive Closed CCR Surface Impoundments as Proposed.

Ameren's most significant objection to the Illinois EPA's proposed rules is that the operative date for closure is October 19, 2015—the effective date of 40 C.F.R. Part 257, a date which never applied to the Ameren sites in question and a date which is almost five years past. During those five years, in the absence of applicable federal rules, Ameren has sought and achieved State approval for the closure of its ponds. The Illinois EPA's assertion of a past date in order to consider a former ash pond "closed" under the Board's new rules, is invalidly modifying the legislature's use of the word "closed" to insert a past date as the date at which closure had to have occurred.

The Illinois EPA's rationale for including the October 19, 2015 is based upon an erroneous reading and misplaced application of the D.C. Circuit Court of Appeals' decision in *Util. Solid Waste Activities Grp. v. Envtl. Prot. Agency*, 901 F.3d 414 (D.C. Cir. 2018), *judgment entered*, No. 15-1219, 2018 WL 4158384 (D.C. Cir. Aug. 21, 2018) ("*USWAG*"). *See* IEPA's Answers to Questions, pp. 138–39. (Aug. 3, 2020). The Illinois EPA's references to the *USWAG* decision simply do not support retention of this provision.

In *USWAG*, the court held that the U.S. EPA acted arbitrarily in not including "legacy ponds" in Part 257, which became effective on October 19, 2015. In its decision, the Court was referring to ponds that continued to pose a serious risk of failure—and were unaddressed by the federal rule. As the Court explains, its concern was with "legacy ponds", which it defines as a "particular subset of inactive impoundments" which "contain a toxic "slurry" of Coal Residuals mixed with water," but "are not receiving new deposits." 901 F.3d at 432. The Court also explains that legacy ponds "present a unique confluence of risks: They pose the same substantial threats to human health and the environment as the riskiest Coal Residuals disposal methods, compounded by diminished preventative and remediation oversight due to the absence of an onsite owner and daily monitoring." *Id.*

Under the original federal rule, the USEPA's policy with respect to these ponds was to respond "only after 'imminent' leakage is detected and reported," or "attempt an after-the-spill clean-up" under CERCLA. *Id.* at 433. The USEPA's justification for this approach was "was its supposed inability to identify the owners of legacy ponds." *Id.* This is what the Court found to be arbitrary and capricious, and CCR surface impoundments which still contained water, and which were located at inactive facilities, is what the *USWAG* court was considering. The court discusses a pipe break in a legacy pond in Alabama; another legacy pond in Gambrills, Maryland, which failed, polluting drinking water, and the massive failure at the Dan River, in North Carolina.

Simply put, none of the issues which were the impetus behind the Court's decision in *USWAG* with respect to legacy ponds apply to ponds which have completed closure pursuant to the authority and approval of the State of Illinois and its existing regulatory programs. As explained above, each of the closed CCR surface impoundments have groundwater monitoring systems that have been approved by the Illinois EPA, and are in post-closure care.

Ameren does not seek to *remove* those CCR surface impoundments that actually still contain CCR and meet the definition of "CCR surface impoundments" from the reach of the Board's Part 845 Rule; rather, it requests that the Board recognize the status that these CCR surface impoundments have achieved pursuant to existing (and exercised) state authority. *USWAG* does not require a different result. Accordingly, Ameren requests that the Board remove the reference to October 19, 2015 from the definition of "Inactive Closed CCR surface impoundment" and modify the definition as follows:

> "Inactive Closed CCR surface impoundment" means an inactive CCR surface impoundment that completed closure before ~~October 19, 2015~~ the effective date of this Part with an Illinois EPA approved closure plan.

B. Clarify Applicability as to Surface Impoundments; Hutsonville Pond D; Former Ash Ponds that Closed Prior to RCRA.

While the Illinois EPA's proposal is a rule of general applicability, it cannot be lost on the Board that there are specific applicability issues that need to be addressed. Ameren is providing modifications to proposed Part 845 to address these applicability issues. The Board must address these outstanding issues, and has the authority and responsibility to do so.

1. Surface Impoundments.

P.A. 101-171 only applies to "CCR surface impoundments", and the Board's rules can only regulate CCR surface impoundments. Section 3.143 of the Act defines surface impoundments as:

> "CCR surface impoundment" means 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). When Ameren specifically inquired as to how a former ash pond that has been closed by removing the CCR from the pond, pursuant to a closure plan approved by the Illinois EPA (which included liner removal and dewatering), can meet the

definition of a CCR surface impoundment (i.e., how it can be considered "designed to hold an accumulation of CCR and liquids" and "to treat, store or dispose CCR"), the Illinois EPA responded:

> [A]ny CCR surface impoundment that had not completed removal of CCR from the CCR surface impoundment prior to October 19, 2015, the effective date of Part 257, is subject to the requirements of Part 257, including the definition of a CCR surface impoundment. Section 3.143 of the Act does have the same definition of CCR surface impoundment as Part 257. Section 22.59(m) of the Act applies the provisions of P.A. 101-171 to all existing CCR surface impoundments and all CCR surface impoundments after the date of the amendatory Act. A CCR surface impoundment that existed on Oct. 19, 2015 is regulated by both Part 257 and Section 22.59 of the Act. As currently written, Part 257 does not deem closure by removal complete until the CCR and any liner have been removed and decontamination of any area affected by releases from the CCR surface impoundment has been completed pursuant to Part 257.100(b)(5).

Illinois EPA's Pre-Filed Answers, pp. 138–39. For the reasons stated above, the Illinois EPA's answer represents a misapplication of *USWAG*. The ponds that have been closed by removal pursuant to the state-approved closure pose no risk of the type discussed by the *USWAG* court and cannot reasonably now be considered by this Board to be the type of "legacy ponds" at issue in *USWAG*. On this point, I would also add that removal of CCR was completed at Hutsonville Ponds B, C, and Bottom Ash Pond before October 19, 2015. Further, a former ash pond that does not contain CCR cannot possibly now meet the definition of CCR surface impoundment, as it is no longer designed to hold an accumulation of CCR and liquids, and it no longer treats, stores, or disposes of CCR.

The Board must, in its decision, clarify this point in order to provide the regulatory clarity and certainty necessary to appropriately (a) apply the definitions contained in the Act and (b) adopt

a rule that is consistent with that legislative definition. Ameren requests the addition of clarifying language to Section 845.100 (Scope and Purpose) as follows:

> A former ash pond that was closed by removal of CCR pursuant to a state-approved closure plan prior to the effective date of this Part is not a surface impoundment as defined in Section 3.143 of the Act, and is not subject to this Part.

2. Hutsonville Pond D.

The Board has an existing set of rules relevant to Hutsonville Pond D. Those site specific rules were initiated by Ameren pursuant to Section 28 of the Act, subjected to a public hearing before the Board, and promulgated by the Board as Part 840. Additionally, the Part 840 rules have served as a roadmap for Ameren and the Illinois EPA in guiding future closures. In its Answers to Questions, the Illinois EPA saw no redundancy in subjecting Hutsonville Pond D to two separate regulatory structures, primarily because they considered Hutsonville Pond D subject only to Section 845.170. Illinois EPA's Pre-Filed Answers, p. 145. While that may be the Illinois EPA's intention as to Part 845 as proposed, subjecting a regulated entity to two separate Board rules, each intended to accomplish a similar result, is fraught with difficulty and potential inconsistency (including separate enforcement structures, each with separate and independent penalties) and should be addressed by the Board. Ameren requests the addition of clarifying language to Section 845.100 (Scope and Purpose), as follows:

> This Part does not apply to any CCR surface impoundment that is subject to 35 Ill. Adm. Code Part 840.

3. Former Ash Ponds that Have Not Accepted CCR Subsequent to October 21, 1976.

Earlier in my testimony, I explained the circumstances surrounding The Old Ash Pond at Ameren's former Meredosia facility. To reiterate, the Meredosia Old Ash Pond stopped receiving wastes before October 21, 1976. As such, this pond falls outside of the federal regulatory system

(RCRA) for the disposal of wastes. The Old Ash Pond currently has a forest of trees growing on it. It is not a "pond" at all and poses little to no environmental risk—certainly nothing like the risks related to "legacy ponds" that the *USWAG* court referenced in its opinion. In fact, the Old Ash Pond at Meredosia is not even among the inventory of sites discussed in that case. *See Util. Solid Waste Activities Grp. v. Envtl. Prot. Agency*, 901 F.3d at 434 (*citing* Regulatory Impact Analysis for EPA's Proposed RCRA Regulation of Coal Combustion Residues, *Information Request Responses from Electric Utilities* (April 30, 2010), *available at* https://archive.epa.gov/epawaste/nonhaz/industrial/special/fossil/web/xlsx/survey_database_041212.xlsx).

Further, the area encompassing the pond is within a Groundwater Management Zone that is in place at Meredosia for the closed ash ponds there. Any risks from the area will be identified and addressed through said Groundwater Management Zone. The Illinois EPA never asked Ameren to address any issues at the Old Ash Pond, nor did it ever seek to include it in the Closure Plan during its review and approval. The Illinois EPA's proposed closure rules, if required to be applied to the Old Ash Pond at Meredosia, would cause more environmental harm than it would achieve in environmental benefit. Ameren requests the addition of clarifying language to Section 845.100 (Scope and Purpose), as follows:

> This Part does not apply to any CCR surface impoundment that ceased accepting waste prior to October 21, 1976.

C. Delete Three Year Groundwater Monitoring Requirement in Section 845.740(b).

Earlier in this testimony I discussed the problems associated with the Illinois EPA's proposed Section 845.740(b), specifically in the context of its intended application to CCR surface impoundments that have been closed by removal pursuant to an Illinois EPA-approved closure plan. In my opinion, any Board rule or Illinois EPA application of such rule which would require

three years of groundwater monitoring for the three ash ponds—which were closed by removal five years ago—would be an unlawful retroactive application of law. Obviously, if the Board clarifies the scope of its rule as to CCR surface impoundments as suggested above, the problems I discussed as to Ameren's clean closed ponds go away.

Further, the proposed rule is problematic in that it seeks to have the Board promulgate a standard—based upon an assertion of federal consistency—which is not even yet a promulgated federal regulation. On Page 139 of its pre-filed responses, the Illinois EPA concedes that it will have to delete Section 845.740(b) if the USEPA does not promulgate a specific final rule by the close of the record in this proceeding. In my experience, the Illinois EPA has never proposed a rule to the Board that seeks to incorporate into state regulations a *proposed* federal standard—asserting it is required for consistency with federal law—much less apply that standard backward, as it seeks to do as to Ameren. For that reason, Ameren requests the deletion of Section 845.740(b):

D. Provide for Illinois EPA Record Keeping Accountability Similar to that Provided for in the Board's Site Remediation Rules.

Ameren is also proposing an additional Subpart J to Part 845. Subpart J would require the Illinois EPA to account for costs expended in administering Part 845. These costs would be tracked through the use of site-specific codes. The Board has directed the Illinois EPA to maintain records relative to site specific costs previously—the Board did so in the context of 35 Ill. Adm. Code Part 740. *See* 35 Ill. Adm. Code § 740.120 (Definitions section), 35 Ill. Adm. Code § 740.305 (titled "Recordkeeping for Agency Services"). Based on my experience, in accordance with Part 740, the Illinois EPA tracks costs in administering Part 740 based on site-specific codes for

hundreds of sites and hundreds of companies. The universe under Part 845 is much more limited and would be well within the Agency's capabilities.

Although the programs are different, each program has a similar focus: achieve closure of units in a manner that protects human health and the environment. Section 22.59(j) established fee payment amounts, but there is no record information as to the basis for those fees. It appears that those fees, because they are located in Section 22.59, are intended to cover the costs of administering the program under Part 845. However, unless there is tracking of the costs incurred under the program, there will be no way for either the environmental community or the regulated community to know that these fees are being used to address the Part 845 program. My understanding with regards to several questions raised by the environmental community was that they are interested in knowing whether the Illinois EPA is going to have sufficient staffing, with the correct expertise, to administer the Part 845 program. Only if there is recordkeeping of costs by the Illinois EPA can that be known. The legislature has provided for substantial fees, presumably to reimburse the Illinois EPA to perform its review and oversight in Section 22.59(j). In other programs where the Illinois EPA is entitled to such fees, such as the Site Remediation program, the Board has provided for similar accountability measures. Ameren recommends the Board consider similar measures here and requests the insertion of a new Subpart J (Illinois EPA Cost and Recordkeeping). Proposed language is set forth in Ameren Exhibit B.

IV. CONCLUSION

This concludes my Pre-filed Testimony. I will supplement as necessary, and I welcome your questions.

EXHIBIT A-1

Letter dated May 6, 2011 from IEPA to Ameren regarding Venice Ash Ponds Closure Plans.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276 • (217) 782-2829
James R. Thompson Center, 100 West Randolph, Suite 11-300, Chicago, IL 60601 • (312) 814-6026

PAT QUINN, GOVERNOR DOUGLAS P. SCOTT, DIRECTOR

May 6, 2011

John C. Pozzo
Managing Supervising Engineer
1 Ameren Plaza
1901 Chouteau Ave.
St. Louis, Missouri 63103

Dear Mr. Pozzo:

The Illinois Environmental Protection Agency (Illinois EPA) has reviewed the Closure Plan Venice Power Plant Ash Ponds 2 & 3 (Closure Plan) dated February 14, 2011, submitted by Ameren, which contains a proposal to establish a Groundwater Management Zone (GMZ) at the Venice site.

The February 14, 2011 submission was amended by letter and revised Closure Plan pages dated March 25, 2011. The amendments reflect a reduction is size of the proposed GMZ that will limit the GMZ's extent to Ameren's property. Upon review of the Amended submittal, the depth to which the GMZ was to extend was not clear. In a letter dated April 25, 2011 Ameren clarified the intended depth of the GMZ, as discussed in the "Geology" Section (Section 2.2.1) of the amended Closure Plan. Ameren also corrected a 2011 date, which had erroneously been listed as 2010.

The Illinois EPA concurs that the Closure Plan, with the amendments and clarifications as discussed above, meets the conditions of 35 Ill. Adm. Code 620.250(a). Therefore, a GMZ is hereby established at the Venice Power Plant within the three dimensional area described in the Closure Plan. Ameren should initiate the Closure Plan at its earliest convenience.

If you have any question concerning this letter, please contact me or Lynn Dunaway of my staff at 217/785-4787.

Sincerely,

William E. Buscher

William E Buscher, P.G.
Manager, Hydrogeology and Compliance Unit
Groundwater Section
Division of Public Water Supplies
Bureau of Water

CC: Rick Cobb
Alan Keller
Darin LeCrone
Lynn Dunaway
Records Unit

EXHIBIT A-2

Letter dated April 18, 2012 from IEPA to Ameren regarding Approval of Ash Pond D Closure Plans.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397
PAT QUINN, GOVERNOR JOHN J. KIM, INTERIM DIRECTOR

CERTIFIED

April 18, 2012

John C. Pozzo
Managing Supervisor, Water Quality
1901 Chouteau Ave.
P.O. Box 66149. MC 602
St. Louis, Missouri 63166-6149

RE: Hutsonville, Ash Pond D Closure and Post Closure Care Plans

Dear Mr. Pozzo:

This letter provides a final determination by the Illinois Environmental Protection Agency (Illinois EPA) regarding the Ameren Energy Generating Company (Ameren), Hutsonville Power Station Ash Pond D Closure and Post Closure Care Plans (Plans), submitted pursuant to 35 AIC 840.128 and 840.138, respectively, dated July 26, 2011 and revisions thereto dated February 15, 2012 and March 30, 2012.

The Illinois EPA has reviewed the required elements of the Closure Plan and Post Closure Care Plan pursuant to the requirements of 35 IAC 840.130 and 840.140, respectively. The Illinois EPA finds that the Plans include all of the required elements and approves all elements of the Plans pursuant to 35 IAC 840.148, as submitted or as revised on the dates listed above. Pursuant to 35 IAC 840, implementation of the approved Plans is subject to acquiring all required permits.

Thank you for your attention to this matter. If you have any questions concerning this letter, please contact me or Lynn Dunaway of my staff at 217-785-4787.

Sincerely,

William E. Buscher

William E. Buscher, P.G.
Supervisor, Hydrogeology and Compliance Unit
Groundwater Section
Division of Public Water Supplies
Bureau of Water

CC: Rick Cobb
Al Keller
Lynn Dunaway
Records

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2125 S. First St., Champaign, IL 61820 (217)278-5800
2009 Mall St., Collinsville, IL 62234 (618)346-5120
9511 Harrison St., Des Plaines, IL 60016 (847)294-4000
5407 N. University St., Arbor 113, Peoria, IL 61614 (309)693-5462
2309 W. Main St., Suite 116, Marion, IL 62959 (618)993-7200
100 W. Randolph, Suite 11-300, Chicago, IL 60601 (312)814-6026

EXHIBIT A-3

Letter dated April 8, 2015 from IEPA to Ameren regarding Approval of Ash Pond Closures at Hutsonville.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-2829

BRUCE RAUNER, GOVERNOR LISA BONNETT, DIRECTOR

April 8, 2015

W0330100003

Mr. Kevin Kersting, Manager Water Quality
Ameren Services
1901 Chouteau Avenue
P.O. Box 66149, MC 606
St. Louis, Missouri 62257

06 L

Dear Mr. Kersting;

This transmittal responds to the Ameren Energy Medina Valley Cogen, LLC (Ameren) Closure Plan: Ash Ponds A, B, C and Bottom Ash Pond Hutsonville Power Station dated October 23, 2014, the Cover-Liner Comparison dated January 14, 2015, and responses, with attachments, to Agency comments dated February 25, 2015 and March 12, 2015, received at the Illinois Environmental Protection Agency ("Agency") headquarters.

The Agency has reviewed the Closure Plan, which includes a section on post-closure care. The Agency finds that the Closure Plan, in conjunction with the supplemental submissions referenced above, represent an appropriate means by which to close Ash Ponds A, B, C and the Bottom Ash Pond at the Hutsonville Power Station.

The Agency notes that the Closure Plan contains a Groundwater Management Zone ("GMZ") application. A letter approving the establishment of a GMZ as described in the GMZ application will be issued upon the Agency's receipt and favorable review of the Acceptance Report and Certification of Final Cover Placement described in Section 4.12 of the Closure Plan.

Thank you for your attention to these matters. If you have any questions or concerns, please contact Lynn Dunaway of my staff or me at the letterhead address or 217/785-4787.

Sincerely,

William E. Buscher

William E. Buscher, P.G.
Supervisor, Hydogeology and Compliance Unit
Groundwater Section
Division of Public Water Supplies
Bureau of Water

CC: Lynn Dunaway
Darin LeCrone
Records

EXHIBIT A-4

Letter dated March 8, 2017 from IEPA to Ameren regarding approval of Ash Pond Closures at Meredosia.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397
BRUCE RAUNER, GOVERNOR ALEC MESSINA, DIRECTOR

March 8, 2017

Mr. Mike Bollinger, Principal Environmental Scientist
Ameren Services
1901 Chouteau Avenue
P.O. Box 66149, MC 602
St. Louis, Missouri 63166-6149

Dear Mr. Bollinger;

This transmittal responds to the AmerenEnergy Medina Valley Cogen, LLC (Ameren) supplemental data and responses received at the Illinois Environmental Protection Agency ("Agency") headquarters, dated February 6, 2017, which amends the "Closure Plan: Fly Ash Pond and Bottom Ash Pond, Meredosia Power Station". The Agency has reviewed the additional data and responses Ameren provided, and finds that the document adequately addresses the Agency's comments dated November 1, 2016.

The Agency notes that Ameren has committed to submitting a signed groundwater management zone ("GMZ") application upon the Agency's approval of the Meredosia Station Closure Plan which includes the initial plan dated August 15, 2016 as modified by the supplemental information dated February 6, 2017. The Agency hereby approves the Closure Plan for the Meredosia Station. The Agency will acknowledge approval of the signed GMZ application under separate cover.

Thank you for your attention to these matters. If you have any questions or concerns, please contact Lynn Dunaway of my staff or me at the letterhead address or 217/785-4787.

Sincerely,

William E. Buscher

William E. Buscher, P.G.
Supervisor, Hydogeology and Compliance Unit
Groundwater Section
Division of Public Water Supplies
Bureau of Water

CC: Lynn Dunaway
Darin LeCrone
Records

EXHIBIT B

Ameren's Proposed Amendments to Part 845

TITLE 35: ENVIRONMENTAL PROTECTION SUBTITLE G: WASTE DISPOSAL
CHAPTER I: POLLUTION CONTROL BOARD
SUBCHAPTER j: COAL COMBUSTION WASTE SURFACE IMPOUNDMENTS

PART 845
STANDARDS FOR THE DISPOSAL OF COAL COMBUSTION RESIDUALS IN SURFACE IMPOUNDMENTS

SUBPART A: GENERAL PROVISIONS

Section:

SUBPART B: PERMITTING

Section

SUBPART C: LOCATION RESTRICTIONS

Section

SUBPART D: DESIGN CRITERIA

SUBPART E: OPERATING CRITERIA

SUBPART F: GROUNDWATER MONITORING AND CORRECTIVE ACTION

SUBPART G: CLOSURE AND POST-CLOSURE CARE

SUBPART H: RECORDKEEPING

SUBPART I: FINANCIAL ASSURANCE

SUBPART J: AGENCY COST RECORDKEEPING

AUTHORITY: Implementing Sections 12, 22, and 22.59 of the Environmental Protection Act [415 ILCS 5/12, 22, and 22.59] and authorized by Sections 22.59, 27, and 28 of the Environmental Protection Act [415 ILCS 5/22.59, 27, and 28].

SOURCE: Adopted in R__-__ at __ Ill. Reg._____, effective _____.

SUBPART A: GENERAL PROVISIONS

Section 845.100 Scope and Purpose

a) This Part establishes criteria for the purpose of determining which CCR surface impoundments do not pose a reasonable probability of adverse effects on health or the environment. CCR surface impoundments failing to satisfy any of the requirements of this Part are considered open dumps, which are prohibited.

b) This Part applies to owners and operators of new and existing CCR surface impoundments, including any lateral expansions of CCR surface impoundments that dispose or otherwise engage in solid waste management of CCR generated from the combustion of coal at electric utilities and independent power producers. Unless otherwise provided in this Part, these requirements also apply to CCR surface impoundments located off-site of the electric utility or independent power producer.

c) This Part also applies to inactive CCR surface impoundments at active and inactive electric utilities or independent power producers, regardless of the fuel currently used at the facility to produce electricity.

d) Except as provided in Section 845.170, inactive CCR surface impoundments are subject to all the requirements of this Part applicable to existing CCR surface impoundments.

e) This Part does not apply to wastes, including fly ash, bottom ash, boiler slag, and flue gas desulfurization materials generated at facilities that are not part of an electric utility or independent power producer, such as manufacturing facilities, universities, and hospitals. This Part also does not apply to fly ash, bottom ash, boiler slag, and flue gas desulfurization materials, generated primarily from the combustion of fuels (including other fossil fuels) other than coal, for the purpose of generating electricity unless the fuel burned consists of more than fifty percent (50%) coal on a total heat input or mass input basis, whichever results in the greater mass feed rate of coal.

f) This Part does not apply to the beneficial use of CCR.

g) This Part does not apply to CCR placement at active or abandoned underground or surface coal mines.

h) This Part does not apply to landfills that receive CCR.

i) <u>This Part does not apply to any CCR surface impoundment that is subject to 35 Ill. Adm. Code Part 840.</u>

j) <u>This Part does not apply to any CCR surface impoundment that ceased accepting waste prior to October 21, 1976.</u>

k) A former ash pond that was closed by removal of CCR pursuant to a state-approved closure plan prior to the effective date of this Part is not a surface impoundment as defined in Section 3.143 of the Act, and is not subject to this Part.

Section 845.120 Definitions

Except as stated in this Section, or unless a different meaning of a word or term is clear from the context, the definition of words or terms in this Part will be the same as that applied to the same words or terms in the Environmental Protection Act (Act):

"Act" means the Illinois Environmental Protection Act [415 ILCS 5].

"Active facility" or "active electric utilities" or "independent power producers" means any facility subject to the requirements of this Part that is in operation on or after October 19, 2015. An electric utility or independent power producer is in operation if it is generating electricity that is provided to electric power transmission systems or to electric power distribution systems on or after October 19, 2015. An off-site CCR surface impoundment is in operation if it is accepting or managing CCR on or after October 19, 2015.

"Active life" or "in operation" means the period of operation beginning with the initial placement of CCR in the CCR surface impoundment and ending at completion of closure activities in accordance with Subpart G.

"Agency" means the Illinois Environmental Protection Agency.

"Agency Travel Costs" means costs incurred and documented for travel in accordance with 80 Ill. Adm. Code 2800 and 3000 by individuals employed by the Agency. Such costs include costs for lodging, meals, travel, automobile mileage, vehicle leasing, tolls, taxi fares, parking and miscellaneous items.

"Aquifer" means a geologic formation, group of formations, or portion of a formation capable of yielding usable quantities of groundwater to wells or springs.

"Area-capacity curves" means graphic curves which readily show the reservoir water surface area, in acres, at different elevations from the bottom of the reservoir to the maximum water surface, and the capacity or volume, in acre-feet, of the water contained in the reservoir at various elevations.

"Areas susceptible to mass movement" means those areas of influence (i.e., areas characterized as having an active or substantial possibility of mass movement) where, because of natural or human-induced events, the movement of earthen material at, beneath, or adjacent to the CCR surface impoundment may result in the downslope transport of soil and rock material by means of gravitational influence. Areas of mass movement include, but are not limited to, landslides, avalanches, debris slides and flows, soil fluctuation, block sliding, and rock fall.

"Beneficial use of CCR" means CCR that meets the definition of coal combustion by product in the Act and the definition of "beneficial use of CCR" pursuant to 40 C.F.R. 257.53.

"Board" means Illinois Pollution Control Board.

“Certified Laboratory” means any laboratory certified under Section 4(o) of the Act, or certified by USEPA for the specific constituents to be examined.

“Closed” means placement of CCR in a CCR surface impoundment has ceased, and the owner or operator has completed closure of the CCR surface impoundment and has initiated post-closure care in accordance with Subpart G.

“*Coal combustion residuals*” or “*CCR*” *means fly ash, bottom ash, boiler slag, and flue gas desulfurization materials generated from burning coal for the purpose of generating electricity by electric utilities and independent power producers*. [415 ILCS 5/3.142]

“CCR fugitive dust” means solid airborne particulate matter that contains or is derived from CCR, emitted from any source other than a stack or chimney.

“CCR storage pile” means any temporary accumulation of solid, non-flowing CCR placed on the land that is designed and managed to control releases of CCR to the environment. CCR contained in an enclosed structure is not a CCR storage pile. Examples of control measures to control releases from CCR storage piles include: periodic wetting, application of surfactants, tarps or wind barriers to suppress dust; tarps or berms for preventing contact with precipitation and controlling run-on/runoff; and impervious storage pads or geomembrane liners for soil and groundwater protection.

“*CCR surface impoundment*” or “*impoundment*” *means a natural topographic depression, man-made excavation, or diked area, which is designed to hold an accumulation of CCR and liquids, and the surface impoundment treats, stores, or disposes of CCR.* [415 ILCS 5/3.143]

<u>"Costs" means all costs incurred by the Agency in administering Part 845.</u>

“Dike” means an embankment, berm, or ridge of either natural or man-made materials used to prevent the movement of liquids, sludges, solids, or other materials.

“Displacement” means the relative movement of any two sides of a fault measured in any direction.

“Disposal” means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste as defined in section 1004(27) of the Resource Conservation and Recovery Act into or on any land or water or into any well so that such solid waste, or constituent thereof, may enter the environment or be emitted into the air or discharged into any waters, including groundwaters. For purposes of this Part, disposal does not include the beneficial use of CCR.

“Downstream toe” means the junction of the downstream slope or face of the CCR surface impoundment with the ground surface.

“Enclosed structure” means:

(1) A completely enclosed, self-supporting structure that is designed and constructed of manmade materials of sufficient strength and thickness to support itself, the CCR, and any personnel and heavy equipment that operate within the structure, and to prevent failure due to settlement, compression, or uplift; climatic conditions; and the stresses of daily operation, including the movement of heavy equipment within the structure and contact of such equipment with containment walls;

(2) Has containment walls that are designed to be sufficiently durable to withstand any movement of personnel, CCR, and handling equipment within the structure;

(3) Is designed and operated to ensure containment and prevent fugitive dust emissions from openings, such as doors, windows and vents, and the tracking of CCR from the structure by personnel or equipment.

"Exceedance of the groundwater protection standard" means:

For existing CCR surface impoundments and inactive CCR surface impoundments, an analytical result with a concentration greater than the numerical value of the constituents listed in 845.600(a), in a down gradient well, or when the up gradient background concentration of a constituent exceeds the numerical value listed in 845.600(a), an analytical result with a concentration at a statistically significant level above the up gradient background concentration, in a down gradient well.

For new CCR surface impoundments and lateral expansions of existing CCR surface impoundments, an analytical result with a constituent concentration at a statistically significant level above the up gradient background concentration, in a down gradient well.

"Existing CCR surface impoundment" means a CCR surface impoundment in which CCR is placed both before and after October 19, 2015, or for which construction commenced prior to October 19, 2015 and in which CCR is placed on or after October 19, 2015. A CCR surface impoundment has commenced construction if the owner or operator has obtained the federal, state, and local approvals or permits necessary to begin physical construction and a continuous on-site, physical construction program had begun prior to October 19, 2015.

"Facility" means all contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, disposing, or otherwise conducting solid waste management of CCR. A facility may consist of several treatment, storage, or disposal operational units (e.g., one or more landfills, surface impoundments, or combinations of them).

"Factor of safety" or "Safety factor" means the ratio of the forces tending to resist the failure of a structure to the forces tending to cause such failure as determined by accepted engineering practice.

"Fault" means a fracture or a zone of fractures in any material along which strata on one side have been displaced with respect to that on the other side.

"Flood hydrograph" means a graph showing, for a given point on a stream, the discharge, height, or other characteristic of a flood as a function of time.

"Free liquids" means liquids that readily separate from the solid portion of a waste under ambient temperature and pressure.

"Groundwater" means water below the land surface in a zone of saturation.

"Hazard potential classification" means the possible adverse incremental consequences that result from the release of water or stored contents due to failure of the diked CCR surface impoundment or mis-operation of the diked CCR surface impoundment or its appurtenances. The hazardous potential classifications include Class 1 and Class 2, which mean:

> Class 1 CCR surface impoundment means a diked surface impoundment where failure or mis-operation will probably cause loss of human life.
>
> Class 2 CCR surface impoundment means a diked surface impoundment where failure or mis-operation results in no probable loss of human life, but can cause economic loss, environmental damage, disruption of lifeline facilities, or impact other concerns.

"Height" means the vertical measurement from the downstream toe of the CCR surface impoundment at its lowest point to the lowest elevation of the crest of the CCR surface impoundment, not including spillways.

"Holocene" means the most recent epoch of the Quaternary period, extending from the end of the Pleistocene Epoch, at 11,700 years before present, to present.

"Hydraulic conductivity" means the rate at which water can move through a permeable medium (i.e., the coefficient of permeability).

"Inactive CCR surface impoundment" means a CCR surface impoundment in which CCR was placed before but not after October 19, 2015 and still contains CCR on or after October 19, 2015. Inactive CCR surface impoundments may be located at an active facility or inactive facility.

"Inactive Closed CCR surface impoundment" means an inactive CCR surface impoundment that completed closure before ~~October 19, 2015~~ the effective date of this Part with an Agency-approved closure plan.

"Inactive facility" or "inactive electric utilities or independent power producers" means any facility that is not in operation on or after October 19, 2015.

“Incised CCR surface impoundment” means a CCR surface impoundment which is constructed by excavating entirely below the natural ground surface, holds an accumulation of CCR entirely below the adjacent natural ground surface, and does not consist of any constructed diked portion.

"Indirect costs" means those costs incurred by the Agency that cannot be attributed directly to a specific site but are necessary to support the site-specific activities, including, but not limited to, such expenses as managerial and administrative services, building rent and maintenance, utilities, telephone and office supplies.

“Inflow design flood” means the flood hydrograph that is used in the design or modification of the CCR surface impoundments and its appurtenant works.

“In operation” means the same as “active life.”

“Karst terrain” means an area where karst topography, with its characteristic erosional surface and subterranean features, is developed as the result of dissolution of limestone, dolomite, or other soluble rock. Characteristic physiographic features present in karst terranes include, but are not limited to, dolines, collapse shafts (sinkholes), sinking streams, caves, seeps, large springs, and blind valleys.

“Lateral expansion” means a horizontal or vertical expansion of the waste boundaries of an existing CCR surface impoundment made after October 19, 2015.

“Liquefaction factor of safety” means the factor of safety (safety factor) determined using analysis under liquefaction conditions.

“Lithified earth material” means all rock, including all naturally occurring and naturally formed aggregates or masses of minerals or small particles of older rock that formed by crystallization of magma or by induration of loose sediments. This term does not include man-made materials, such as fill, concrete, and asphalt, or unconsolidated earth materials, soil, or regolith lying at or near the earth surface.

“Maximum horizontal acceleration in lithified earth material” means the maximum expected horizontal acceleration at the ground surface as depicted on a seismic hazard map, with a 98% or greater probability that the acceleration will not be exceeded in 50 years, or the maximum expected horizontal acceleration based on a site-specific seismic risk assessment.

“New CCR surface impoundment” means a CCR surface impoundment or lateral expansion of an existing or new CCR surface impoundment that first receives CCR or commences construction after October 19, 2015. A new CCR surface impoundment has commenced construction if the owner or operator has obtained the federal, state, and local approvals or permits necessary to begin physical construction and a continuous on-site, physical construction program had begun after October 19, 2015.

"Other contractual costs" means costs for contractual services not otherwise specifically identified, including, but not limited to, printing, blueprints, photography, film processing, computer services and overnight mail.

“Operator” means the person(s) responsible for the overall operation of a CCR surface impoundment.

“Outermost damage zone of a fault” means the volume of deformed wall rocks around a fault surface that results from the initiation, propagation, interaction and build-up of slip along faults.

“Owner” means the person(s) who owns a CCR surface impoundment or part of a CCR surface impoundment.

"Personal services costs" means costs relative to the employment of individuals by the Agency. Such costs include, but are not limited to, hourly wages and fringe benefits.

“Poor foundation conditions” means those areas where features exist which indicate that a natural or human-induced event may result in inadequate foundation support for the structural components of an existing or new CCR surface impoundment. For example, failure to maintain static and seismic factors of safety as required in Section 845.460 would cause a poor foundation condition.

“Probable maximum flood” means the flood that may be expected from the most severe combination of critical meteorologic and hydrologic conditions that are reasonably possible in the drainage basin.

“Qualified person” means a person or persons trained to recognize specific appearances of structural weakness and other conditions which are disrupting or have the potential to disrupt the operation or safety of the CCR surface impoundment by visual observation and, if applicable, to monitor instrumentation.

“Qualified professional engineer” means an individual who is licensed under the Professional Engineer Act of 1989, 225 ILCS 32, to practice one or more disciplines of engineering and who is qualified by education, technical knowledge and experience to complete the engineering analyses and make the specific technical certifications required under this Part.

“Recognized and generally accepted engineering practices” means engineering maintenance or operation activities based on established codes, widely accepted standards, published technical reports, or a practice widely recommended throughout the industry. Such practices generally detail approved ways to perform specific engineering, inspection, or mechanical integrity activities.

“Retrofit” means to remove all CCR and contaminated soils and sediments from the CCR surface impoundment, and to ensure the surface impoundment complies with the requirements in Section 845.410.

"Run-off" means any rainwater, leachate, or other liquid that drains over land from any part of a CCR surface impoundment or lateral expansion of a CCR surface impoundment.

"Run-on" means any rainwater, leachate, or other liquid that drains over land onto any part of a CCR surface impoundment or lateral expansion of a CCR surface impoundment.

"Sand and gravel pit" or "quarry" means an excavation for the extraction of aggregate, minerals or metals. The term sand and gravel pit and/or quarry does not include subsurface or surface coal mines.

"Seismic factor of safety" means the factor of safety (safety factor) determined using analysis under earthquake conditions using the peak ground acceleration for a seismic event with a 2% probability of exceedance in 50 years, equivalent to a return period of approximately 2,500 years, based on the U.S. Geological Survey (USGS) seismic hazard maps for seismic events with this return period for the region where the CCR surface impoundment is located.

"Seismic impact zone" means an area having a 2% or greater probability that the maximum expected horizontal acceleration, expressed as a percentage of the earth's gravitational pull (g), will exceed 0.10 g in 50 years.

"Slope protection" means engineered or non-engineered measures installed on the upstream or downstream slope of the CCR surface impoundment to protect the slope against wave action or erosion, including but not limited to rock riprap, wooden pile, concrete revetments, vegetated wave berms, concrete facing, gabions, geotextiles, or fascines.

"Solid waste management" or "management" means the systematic administration of the activities which provide for the collection, source separation, storage, transportation, processing, treatment, or disposal of solid waste.

"Static factor of safety" means the factor of safety (safety factor) determined using analysis under the long-term, maximum storage pool loading condition, the maximum surcharge pool loading condition, and under the end-of-construction loading condition.

"Structural components" means liners, leachate collection and removal systems, final covers, run-on and run-off systems, inflow design flood control systems, and any other component used in the construction and operation of the CCR surface impoundment that is necessary to ensure the integrity of the surface impoundment and that the contents of the surface impoundment are not released into the environment.

"Temporary accumulation" means an accumulation on the land that is neither permanent nor indefinite. To demonstrate that the accumulation on the land is temporary, all CCR must be removed from the pile at the site. The entity engaged in the activity must have a record in place, such as a contract, purchase order, facility operation and maintenance, or fugitive dust control plan, documenting that all of the CCR in the pile will be completely removed according to a specific timeline.

“Unstable area” means a location that is susceptible to natural or human-induced events or forces capable of impairing the integrity, including structural components of some or all of the CCR surface impoundment that are responsible for preventing releases from such surface impoundment. Unstable areas can include poor foundation conditions, areas susceptible to mass movements, and karst terrains.

“Uppermost aquifer” means the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within the facility’s property boundary. Upper limit is measured at a point nearest to the natural ground surface to which the aquifer rises during the wet season.

“Waste boundary” means a vertical surface located at the hydraulically downgradient limit of the CCR surface impoundment. The vertical surface extends down into the uppermost aquifer.

“Wetlands” means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Section 845.740 Closure by Removal

a) Closure by removal of CCR. An owner or operator may elect to close a CCR surface impoundment by removing and decontaminating all areas affected by releases from the CCR surface impoundment. CCR removal and decontamination of the CCR surface impoundment are complete when the CCR in the surface impoundment and any areas affected by releases from the CCR surface impoundment have been removed.

b) ~~After closure by removal has been completed, the owner or operator must continue groundwater monitoring pursuant to Subpart F for three years after the completion of closure or for three years after groundwater monitoring does not show an exceedance of the groundwater protection standard established pursuant to Section 845.600, whichever is longer.~~

SUBPART J: AGENCY COST RECORDKEEPING

Section 845.1000 General

This Subpart sets forth the requirements to be followed by the Agency in maintaining records relative to costs incurred by the Agency in administering Part 845.

Section 845.1010 Recordkeeping for Agency Costs Administering Part 845

a) Costs incurred by the Agency shall be tracked within the Agency by the use of site-specific codes. The following types of costs shall be documented as applicable:

1) Personal services costs and indirect costs;
2) Agency travel costs;
3) Professional and artistic services contractual costs;
4) Laboratory costs; and
5) Other contractual costs.

b) All Agency personnel performing review services or other support services for a site under this Part shall allocate their time to that site using the assigned site-specific codes.