BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

In the Matter of:	)	
	)	
PROPOSED RULES ESTABLISHING	)	**R09-21**
35 ILL. ADM. CODE SUBCHAPTER j, PART	)	**(Rulemaking – Land)**
840, AND SUBPART A,	)	
SITE-SPECIFIC RULES PROVIDING FOR	)	
THE CLOSURE OF ASH POND D AT THE	)	
HUTSONVILLE POWER STATION.	)	
	)	

NOTICE OF FILING

To:

John T. Therriault, Assistant Clerk
Illinois Pollution Control Board
James R. Thompson Center
Suite 11-500
100 West Randolph
Chicago, Illinois 60601

Persons included on the
ATTACHED SERVICE LIST

PLEASE TAKE NOTICE that we have today filed with the Office of the Clerk of the Pollution Control Board **the APPEARANCES OF RENEE CIPRIANO, KATHLEEN C. BASSI, AND JOSHUA R. MORE on behalf of AMEREN ENERGY GENERATING COMPANY; AMEREN'S PROPOSAL FOR SITE-SPECIVID REGULATION OF THE CLOSURE OF ASH POND D AT THE HUTSONVILLE POWER STATION; STATEMENT OF REASONS (with the proposed regulatory language attached); TECHNICAL SUPPORT DOCUMENT, MOTION TO WAIVE SIGNATURE REQUIREMENT; MOTION FOR EXPEDITED REVIEW; and AGENCY ANALYSIS OF ECONOMIC AND BUDGETARY EFFECTS OF PROPOSED RULEMAKING.**

Kathleen C. Bassi

Dated: May 19, 2009

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BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

In the Matter of:	)	
	)	
SITE-SPECIFIC RULE FOR THE CLOSURE OF ASH POND D AT THE HUTSONVILLE POWER STATION: PROPOSED NEW 35 ILL. ADM. CODE PART 840	)	**R09-21 (Rulemaking – Land)**

APPEARANCE

I, RENEE CIPRIANO, hereby file my appearance in this matter on behalf of AMEREN ENERGY GENERATING COMPANY.

Respectfully submitted,

Renee Cipriano

Dated: May 19, 2009

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BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

In the Matter of:	)	
	)	
SITE-SPECIFIC RULE FOR THE	)	**R09-21**
CLOSURE OF ASH POND D AT THE	)	**(Rulemaking – Land)**
HUTSONVILLE POWER STATION:	)	
PROPOSED NEW 35 ILL. ADM.	)	
CODE PART 840	)	

APPEARANCE

I, KATHLEEN C. BASSI, hereby file my appearance in this matter on behalf of AMEREN ENERGY GENERATING COMPANY.

Respectfully submitted,

Kathleen C. Bassi

Dated: May 19, 2009

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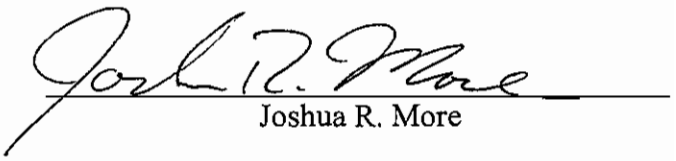
BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

In the Matter of:	)	
	)	
SITE-SPECIFIC RULE FOR THE CLOSURE OF ASH POND D AT THE HUTSONVILLE POWER STATION: PROPOSED NEW 35 ILL. ADM. CODE PART 840	)	**R09-21 (Rulemaking – Land)**

APPEARANCE

I, JOSHUA R. MORE, hereby file my appearance in this matter on behalf of AMEREN ENERGY GENERATING COMPANY.

Respectfully submitted,



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BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

In the Matter of:	)	
	)	
PROPOSED RULES ESTABLISHING	)	**R09-21**
35 ILL. ADM. CODE SUBCHAPTER j,	)	**(Rulemaking – Land)**
PART 840, AND SUBPARTS A AND B,	)	
SITE-SPECIFIC RULES PROVIDING	)	
FOR THE CLOSURE OF ASH POND	)	
D AT THE HUTSONVILLE POWER	)	
STATION.	)	

AMEREN'S PROPOSAL FOR SITE-SPECIFIC REGULATION OF THE CLOSURE OF ASH POND D AT THE HUTSONVILLE POWER STATION

NOW COMES Proponent, AMEREN ENERGY GENERATING COMPANY ("Ameren"), by and through its attorneys, SCHIFF HARDIN LLP, and pursuant to Sections 27 and 28 of the Environmental Protection Act ("Act"), 415 ILCS 5/27and 28, Section 8 of the Groundwater Protection Act, 415 ILCS 55/8, and 35 Ill.Adm.Code §§ 102.208 and 102.210, proposes that the Board amend its rules to add new Subchapter j, Surface Impoundments; new Part 840, Closure of Surface Impoundments; new Subpart A, General Provisions; and new Subpart B, Closure of Ash Pond D, Hutsonville Power Station.

On August 8, 2008, Ameren petitioned the Board for an adjusted standard from the provisions of Parts 811, 814, and 815 of its rules to appropriately accomplish the closure of Ash Pond D at the Hutsonville Power Station. *Petition of Ameren Energy Generating Company for Adjusted Standards from 35 Ill.Adm.Code Parts 811, 814, and 815 (Hutsonville Power Station)*, AS 09-1. On September 16, 2008, the Board posed three questions to the Illinois Environmental Protection Agency ("Agency") and Ameren: (1) what is the authority for applying the Board's landfill regulations to Ash Pond D; (2) whether any of Ameren's applicable permits address

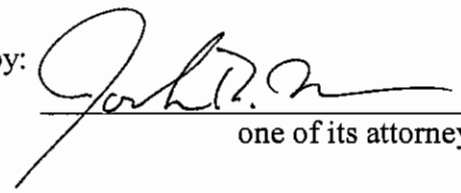
requirements for closure of Ash Pond D; and (3) whether a site-specific rule would perhaps be a more appropriate regulatory relief mechanism through which to define the closure requirements applicable to Ash Pond D. Ameren responded to the Board's Order on October 16, 2008, concluding that the landfill regulations do not apply to Ash Pond D and Agency policy cannot substitute for rules, that none of Ameren's permits provide for closure of Ash Pond D, and that site-specific rules would be the more appropriate regulatory relief. The Board found that Ameren "persuasively argued that Pond D accumulated waste for final disposal without automatically becoming subject to the landfill regulations" but that the petition for adjusted standard more closely resembled land regulations for waste disposal. Order, AS 09-1 (March 5, 2009). The Board, therefore, concluded that a "site-specific rule is the appropriate source of regulatory relief under which to close Ameren's Pond D." *Id.*

Ameren, today, proposes such a regulation and requests that the Board accept the proposal for review and set hearing as soon as possible. Through separate motions filed with this initial submittal, Ameren also requests that the Board waive the requirement for 200 signatures and that it grant expedited review of this proposed rule. In addition to the proposed language, this submittal includes a Statement of Reasons summarizing the rule and discussing the justification for the rule and its economic impact and a Technical Support Document providing detailed technical discussions of Ash Pond D, its impacts on groundwater, the extent of those impacts, and how the proposed rule will resolve those impacts.

WHEREFORE, Ameren respectfully requests that the Board accept this proposed site-specific rulemaking and adopt the proposed as expeditiously as possible.

Respectfully submitted,

AMEREN ENERGY GENERATING COMPANY

by: 

one of its attorneys

Dated: May 19, 2009

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BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

In the Matter of:	)	
	)	
SITE-SPECIFIC RULE FOR THE CLOSURE OF ASH POND D AT THE HUTSONVILLE POWER STATION: PROPOSED NEW 35 ILL. ADM. CODE PART 840	)	**R09-21 (Rulemaking – Land)**

STATEMENT OF REASONS

Ameren Energy Generating Company ("Ameren" or "the Company"), by and through its attorneys, SCHIFF HARDIN LLP, pursuant to 35 Ill.Adm.Code §§ 102.208 and 102.210,[1] Sections 27 and 28 of the Environmental Protection Act ("Act"), 415 ILCS 5/27 and 28, and Section 8 of the Illinois Groundwater Protection Act, 415 ILCS 55/8, propose to add to the Board's rules new Subchapter j, Surface Impoundments, and new Part 840, Site-Specific Closure of Surface Impoundments, consisting of Subpart A, the site-specific rules applicable to Ash Pond D at Ameren's Hutsonville Power Station located in Crawford County, Illinois. In support of its proposal and pursuant to Section 102.202(b), Ameren states as follows:

I. PURPOSE OF THE PROPOSED RULE
(Sections 102.202(b), 102.210(b) and 102.210(e))

The purpose of the proposed rule is to cover a gap in the Board's existing Waste Disposal regulations and allow for the closure of Ash Pond D, a surface impoundment which managed coal combustion waste at Ameren's Hutsonville Power Station located in Crawford County, Illinois. Existing regulations addressing waste, waste hauling, and landfills at Parts 700 through 849, nonconsecutive, of the Board's rules do not sufficiently address the closure of surface

[1] Subsequent references to the Board's rules will be by section number only.

impoundments, in particular, ash ponds used as water treatment facilities in connection with the management of coal combustion waste associated with coal-fired power plants. The operation of ash ponds is regulated pursuant to the Board's Water Pollution Control rules. However, upon closure the ash ponds do not fit any of the types of facilities covered by the Board's regulations, including the Waste Disposal rules of Subtitle G. They are not landfills as defined in the Board's solid waste regulations. 35 Ill. Adm. Code 810.103 (definitions of *landfill* and *surface impoundment*); and *see In re. Conversion Systems, Inc.*, 1993 WL 341270, at *1 and fn. 3, PCB AS 93-4, (August 26, 1993), ("the definition of landfill in the Board's landfill regulations presently does not include the surface impoundments commonly used by utilities for disposal"). They are unique and, therefore, a site-specific rule is needed. The technical feasibility or economic reasonableness of any existing rule is not at issue, except to the extent that existing rules are not appropriate for the closure of ash ponds at coal-fired power plants.

Because the proposed rule addresses the closure of a surface impoundment containing coal-combustion waste, the Board's authority to adopt the proposed rule most appropriately arises under Section 22 of the Act and Section 8 of the Illinois Groundwater Protection Act. The surface impoundment in question was not subject to the provisions of Subtitle G of the Board's rules during its operation. *See* 35 Ill. Adm. Code 810.103 (definitions of *landfill* and *surface impoundment*). However, the closure of the surface impoundment with the coal-combustion waste in place most appropriately falls under the general provisions of Section 22 of the Act. Furthermore, because the proposed rule addresses groundwater quality requirements for the groundwater impacted by the surface impoundment, the Board's authority to adopt the proposed rule also arises under Section 8 of the Illinois Groundwater Protection Act.

After consultation with the Agency, Ameren had proposed an adjusted standard to the landfill regulations to provide for closure of Ash Pond D at the Hutsonville Power Station. *Petition of Ameren Energy Generating Company for Adjusted Standards from 35 Ill. Adm. Code 811, 814, and 815 (Hutsonville Power Station)*, AS 09-1 (Mar. 5, 2009) ("Ameren Hutsonville AS"). The Board, however, determined (and Ameren agrees) that a site-specific rule is the appropriate mechanism under which Ameren should close Ash Pond D and directed Ameren to amend Subtitle G if it chose to proceed with a site-specific rulemaking. *Ameren Hutsonville AS*, AS 09-1, slip op. at 11 (Mar. 5, 2009). In reviewing the organization of the Board's rules, it appears that there is no logical place for closure of ash ponds at coal-fired power plants in the current structure. For that reason, Ameren here proposes that the Board add new Subchapter j to Subtitle G specific to Surface Impoundments. Ameren also proposes that the Board create a new Part 840, Site-Specific Closure of Surface Impoundments, under Subchapter j.[2]

The addition of the proposed new Subchapter and new Part would close a gap currently existing in the Board's Waste Disposal rules. The Board recognized the need for state-wide regulations addressing the closure of on-site ash ponds located at coal-fired electric generating facilities when it promulgated the landfill regulations in 1990. *See Development, Operating and Reporting Requirements for Non-Hazardous Waste Landfills*, R88-7 (Aug. 17, 1990) ("Landfill Regulations"). The electric generation industry sought clarification of the applicability of the Landfill Regulations and sought to regulate ash ponds under the Landfill Regulations soon after they were adopted. *Amendments to the Development, Operating and Reporting Requirements for Non-Hazardous Waste Landfills: 35 Ill. Adm. Code 811*, R90-25 (Nov. 29, 1990). However, regulating ash ponds at closure under the Landfill Regulations was found unworkable. As a

[2] Ameren recognizes that the Board must obtain the number of the new Part from the Secretary of State who may determine that 840 is not the appropriate number for the new Part.

result, no provision for closure of ash ponds was ever adopted under the Landfill Regulations or any other Illinois regulation. Furthermore, there is no existing site-specific rule or even evidence that Ameren could find of a past proposal for site-specific rulemaking for the closure of an ash pond.

As Ameren's ash ponds are reaching capacity, the need for regulatory certainty has become essential. In addition to Hutsonville, and over the course of the next five to seven years, the Company anticipates that a number of ash ponds at its facilities could reach the end of their operating lives and cease to be regulated by the Board's Water Pollution Control requirements, thereby triggering closure obligations.

The proposed rule is required by necessity – there are no regulations governing the closure of ash ponds. It is not a requirement of any federal law and would not be inconsistent with any federal law or requirement. The closure of Ash Pond D does not trigger federal or federally delegated regulatory programs as applied to this site. Furthermore, ash and slag by-products from the combustion of coal by electric generating stations are not subject to regulation as hazardous waste under Subtitle C of RCRA or other federal standards and fall within the hazardous waste exemption set forth in RCRA Section 2001(b)(3)(c). 65 Fed.Reg. 32214 (May 22, 2000).[3]

No federal laws currently exist, and it will be sometime (if ever) before any new federal laws become applicable. Accordingly, the Board may adopt Ameren's proposal consistent with federal law.

[3] The United States Environmental Protection Agency is currently in the process of soliciting input on whether the current regulatory approach is appropriate.

II. TECHNICAL SUPPORT DOCUMENT
(Sections 102.210(b), (c), and (d))

Over the last decade, Ameren has explored with the Agency a variety of regulatory approaches to address the proper closure of Ash Pond D. Those efforts culminated in filing a petition for adjusted standards from various landfill requirements with the Board. *Ameren Hutsonville AS*, AS 09-1 (Mar. 5, 2009). In preparation for that filing, Ameren analyzed groundwater data, performed groundwater modeling, and compared the effectiveness of several closure alternatives. In filing this proposal for site-specific rule, Ameren revisited and redrafted many of the underlying technical documents and reports prepared in support of the adjusted standard proceeding with the revised objective of meeting the requirements for a rulemaking proposal specific to the closure of Ash Pond D. As a result, Ameren has gathered the documents into a Technical Support Document ("TSD") for this rulemaking proposal. In addition to site maps, the TSD includes the following documents:

- Ash Pond D Closure Alternatives Report – This report, located at Chapter 5, pages 9 through 174 of the TSD, identifies various groundwater management and final cover alternatives. The report then evaluates the alternatives based on factors such as technical feasibility and economic reasonableness and their effectiveness in preventing off-site groundwater impacts and minimizing infiltration of the final cover system.
- Hydrogeologic Assessment – This assessment, Chapter 6, pages 175 through 330 of the TSD, evaluates soil, leachate and groundwater samples to characterize the geology, groundwater flow, and groundwater quality at the site and determine the source of elevated parameters of concern found on site.
- Ash Pond D Closure Human Health and Ecological Risk Assessment (RA) – This document, Chapter 7, pages 331 through 492 of the TSD, evaluates the risks of the

selected closure option to human health and the environment under current and reasonably foreseeable future conditions and land uses. The assessment concludes that the closure plan and associated activities will be protective of human health and the environment.

- Groundwater Modeling Technical Memorandum – This document, Chapter 8, pages 493 through 536 of the TSD, describes the modeling used to determine the extent of off-site migration of boron above Class I groundwater quality standards. Boron was chosen because it is an indicator parameter for coal ash leachate and it is very mobile. The results of this modeling form the basis for establishing the boundaries of Zone B, an area of impacted groundwater resulting from the historic operations of Ash Pond D. The modeling also demonstrates the effectiveness of the selected closure activities for Ash Pond D in reducing concentrations of boron in groundwater as well as boron loading to the Wabash River.
- Groundwater Use Restriction – This executed letter between Ameren and the adjacent landowner establishes a groundwater use restriction that is immediately effective and will be applicable to future owners of the designated property. The letter is included at Chapter 9, pages 537 through 540 of the TSD.
- Hutsonville Ash Pond D Monitoring Program – This document, Chapter 10, pages 541 through 605 of the TSD, provides an example of the monitoring program Ameren intends to submit as part of the site closure plan.
- Storet Data – This document, Chapter 11, pages 606 through 608, provides a summary of the STORET data for the "Wabash River at Hutsonville."

- Mixing Calculation – This document, Chapter 12, pages 609 through 610, provides a summary of the mixing calculations performed to determine whether or not discharge from the proposed groundwater collection trench would cause boron to exceed the Facility's NPDES effluent limit of 10 mg/L.

III. THE SITE AND THE AREA AFFECTED BY THE PROPOSED RULE
(Seetions 102.202(b) and 102.210(d))

The Hutsonville Power Station ("Hutsonville" or the "Station") is located on approximately 205 acres in Crawford County near the town of Hutsonville on the Wabash River. The Wabash River forms the eastern border of the Hutsonville Power Station site, while farmland comprises the southern and western borders. The northern border is undeveloped, wooded land. The closest residence is approximately one-half mile from the Hutsonville Station. *See* TSD, Ch. 1, p. 2; Ch. 7, pp. 345, 481-492. Ameren is unaware of any Crawford County zoning restrictions that affect the Hutsonville Station or that preclude implementation of this proposed rule. The Hutsonville Station is the only source affected by this proposal.

The Station was built in the 1940s, and for nearly 70 years, Ameren or its corporate predecessor has generated electricity at Hutsonville. Hutsonville contains a coal-fired electric generating plant and a wastewater disposal system for management of coal-combustion wastes, including fly ash. Principal electric generating equipment at Hutsonville includes two coal-fired boilers for steam production and steam-driven turbine generators. The Station draws water from the Wabash River through a circulating water system that is used in the boiler and turbine equipment systems. Pursuant to the terms of a Water Pollution Control permit (2005-EO-3689) Ameren operates a surface impoundment system consisting of four ponds: bottom ash, fly ash (Ash Pond A), drainage collection (Ash Pond C) and final (Ash Pond B). All of these

impoundments (with the exception of the bottom ash pond) are lined. Ash, a by-product of coal combustion, is removed from the boilers and sluiced to the impoundment system via pipelines. Solids settle in Ash Pond A, and sluice water decants from pond to pond before discharging to the Wabash River through an NPDES-permitted outfall in Ash Pond B (NPDES Permit No. IL0004120). The surface impoundment system accepts coal combustion waste (*i.e.*, fly ash and bottom ash), low-volume waste,[4] and sanitary wastewater that enter the impoundment system after treatment in a package sewage treatment plant.[5] Fifty-eight employees work at the Station, which is staffed 24 hours per day, seven days per week.

The subject of this proposal, Ash Pond D, functioned as the Station's primary ash pond from 1968 until it was removed from service in 2000. Ash Pond D is located in the center of the south half of Section 17, Township 8 North, Range 11 West, Crawford County, Illinois, on the west bank of the Wabash River. It is as close as 100 feet to the river and covers an area of approximately 22 acres. Ash Pond D's berms were constructed from indigenous earthen materials and the impoundment is unlined. In 2000, Ameren excavated coal ash from a former laydown area adjacent to Ash Ponds A and D and constructed two lined ponds, Ash Ponds B and C, to supplement ash management capabilities and to improve surface water management at the Station. Upon completion of Ash Ponds B and C, Ash Pond D was removed from service and allowed to dewater.[6]

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[4] At Hutsonville Power Station, low-volume waste is made up of demineralizers and boiler blow-down (phosphates).

[5] The USEPA issued a regulatory determination on May 22, 2000 (65 Fed. Reg. 32214), exempting coal ash co-disposed with remaining (i.e., low-volume) wastes from RCRA Subtitle C regulation.

[6] Pond D is no longer covered by Water Pollution Control Permit 2005-EO-3689.

Ameren estimates that during its 30 years of active operation, Ash Pond D accumulated approximately 750,000 cubic yards of ash and approximately one-third of this volume (280,000 cubic yards) lies below the water table. TSD Ch. 5, p. 16, 75; Ch. 6, pp. 194-196, 199, 215;; Ch. 8, p. 517. The Agency approved the addition of approximately 200,000 cubic yards of ash to Ash Pond D after it was taken out of service to enable the establishment of an acceptable final grade.

The TSD contains a detailed discussion and description of the site geology. TSD Ch. 6, pp. 193-200. Site geology consists of four hydrostratigraphic units: (1) unlithified sand overlying lithified Pennsylvanian-age sandstone, present in upland areas, with a combined thickness that is typically between 15 and 35 feet; (2) unlithified fine-grained alluvial sediments within the Wabash River bedrock valley that are approximately 20 feet thick; (3) coarse-grained alluvial sediments within the Wabash River bedrock valley that are as much as 70 or more feet thick; and (4) Pennsylvanian-age shale that underlies the sandstone in the upland areas and the coarse-grained alluvium in the bedrock valley. The western portion of Ash Pond D overlies the upland sand. The eastern portion of Ash Pond D overlies the fine-grained alluvium in the Wabash River Valley. The upland sand and underlying sandstone beneath the western portion of Ash Pond D and thin sand lenses within the fine-grained alluvium that lies under the eastern portion of Ash Pond D are collectively referred to as the "upper migration zone." The coarse-grained alluvial deposits at depth in the Wabash River bedrock valley are referred to as the "deep alluvial aquifer." Included in TSD, Chapters 5 and 6 and are cross-section diagrams that illustrate the stratigraphic relationships of these formations. *See* pp. 32, 215.

The fine-grained alluvial deposits overlying the deep alluvial aquifer occur over an elevation range that overlaps the upland shale (*see* TSD, Ch. 5, pp. 16-17, 32), combining to

form a confining layer that restricts vertical migration of groundwater between the upper migration zone and deep alluvial aquifer. As a result, the uppermost aquifer at the Hutsonville site is the upper migration zone. The efficacy of the confining layer is supported by the concentration data because, as explained below, the only ash leachate impacts observed in the deep alluvial aquifer are highly localized and at concentrations lower than Class I standards and much lower than in the upper migration zone, despite the fact that Ash Pond D was first placed in service more than 40 years ago.

Groundwater flow direction in both the upper migration zone and the deep alluvial aquifer is eastward, toward the Wabash River. Maps depicting groundwater flow in these units over four consecutive quarterly measurements are provided in the TSD, Chapters 5 and 6, pages 16-17, 33-48, 197-199. The upper migration zone is not used for water supply at or downgradient of Ash Pond D, because this zone is not sufficiently productive for power plant operational uses, agricultural irrigation purposes, or domestic uses.[7] Only the deep alluvial aquifer at depth in the Wabash River bedrock valley has sufficient thickness and hydraulic conductivity downgradient of Ash Pond D to yield adequate groundwater supplies for domestic uses or power plant and agricultural irrigation purposes.

Since 1984, Ameren has monitored groundwater quality at Hutsonville through a monitoring well network. *See* TSD Chapter 2 page. 4 and Chapter 5 pages 17 and 59 for a detailed description of the monitoring well network. Groundwater impairments associated with Ash Pond D are generally localized to the area adjacent to and south of the pond. Groundwater within the upper migration zone immediately downgradient and adjacent to Ash Pond D,

[7] Shallow sandstone provides limited groundwater yield adequate for domestic uses in other parts of the county, but there are no such wells at or downgradient of Ahs Pond D, and deep formations are saline (*see* the ISWS State Aquifer Map, TSD, Ch. 4, p. 8).

described in the TSD in Chapter 5 at pages 17-18, 49, and 60-72, shows evidence of ash leachate impacts. In particular, boron and sulfate concentrations exceed the Class I groundwater quality standards. 35 Ill.Adm.Code § 620.410. Monitoring well data from the upper migration zone along the southern property line (Monitoring Wells ("MW") 11, 6) suggest the potential for off-site migration. Accordingly, Ameren investigated the extent of any offsite groundwater plume by obtaining direct-push (Geoprobe) samples downgradient of Ash Pond D in the actively farmed agricultural field immediately south of the property line. *See* TSD, Ch. 2, p. 4; Ch. 6, pp. 231, 236. As a result of these activities, Ameren is able to characterize and delineate hydraulic properties, groundwater flow, and the extent of groundwater impacts associated with Ash Pond D. *See* TSD, Ch. 5, pp. 16-18, Ch. 6, pp. 193-211, Ch. 8, pp. 505, 530.

To determine the extent of off-site migration, Ameren obtained direct-push (Geoprobe) samples approximately 1,300 feet south of its property boundary.[8] These sampling results reflected compliance with Class I groundwater quality standards. Nevertheless, Ameren used a calibrated groundwater flow and transport model, in conjunction with information gained from some temporary push wells, to predict the extent of the impact to groundwater on the neighboring property. The model was calibrated to compare existing "in service" boron concentration and distribution levels to changes in such concentrations variables resulting from removing the impoundment from service under a variety of capping scenarios ranging from no cap, native soil, compacted clay, and synthetic cover. Three model codes were used to simulate groundwater flow and contaminant transport: (1) post closure leachate percolation using the model developed by the U.S. Environmental Protection Agency ("USEPA"), the Hydrologic Evaluation of Landfill Performance (HELP) model; a three-dimensional groundwater flow

[8] The area is actively farmed and more invasive sampling would have been disruptive to such farming activities.

MODFLOW analysis (developed by the U.S. Geological Survey); and (3) contaminant transport calculations via the MT3DMS model. The modeling results indicate that the off-site impacts in the upper migration zone extend a distance of approximately 500 feet from the southern property line downgradient of Ash Pond D. *See* TSD, Ch. 8, p. 505, 530.

The proposed rule requires Ameren to cover Ash Pond D with a geosynthetic membrane and install a groundwater collection trench along the southern boundary of the property. By covering Ash Pond D with a geosynthetic membrane, the impounded ash will no longer be subject to precipitation and surface water infiltration. By installing a groundwater collection trench along the Station's southern boundary, groundwater flow emanating from Ash Pond D will be intercepted, thereby allowing impacted groundwater underlying the adjacent off-site property to attenuate. Impacted groundwater collected in the trench will be routed to Ash Pond B where it will mix with sluice waters before eventual discharge to the Wabash River. The concentration levels of such discharge are expected to be below current NPDES limits. TSD, Ch. 12. As set forth more fully in the TSD, the groundwater model indicates that the past dewatering together with the future geosynthetic membrane cap and groundwater collection trench will result in a dramatic improvement of groundwater quality south of Ash Pond D; the upper migration zone groundwater at the southern property boundary is expected to come into compliance with Class I groundwater quality standards within approximately 7-12 years. *See* TSD, Ch. 8 pp. 505-506. In addition, the adjacent landowner has agreed to use restrictions with respect to impaired groundwater underlying the northern-most edge of her property. TSD Ch. 9, pp. 538-540.

As discussed in the TSD, groundwater in the deep alluvial aquifer of the Wabash River valley meets Class I groundwater quality standards and has been only minimally impacted by

Ash Pond D. *See* TSD, Ch. 5, pp. 17-18l; Ch. 6, pp. 201-207, 236. Sampling from one monitoring well, MW 14, immediately southeast of Ash Pond D reflects levels of boron and sulfate above background concentrations. *See* TSD, Ch. 5, pp. 17-18, 51-52, 68-72; Ch. 6, p. 236; Ch. 7, pp. 426-428. Even so, the relatively elevated concentrations of boron and sulfate near MW 14 in the deep alluvial aquifer comply with Class I groundwater standards. The elevated concentrations of manganese in MW 14 are consistent throughout the deep alluvial aquifer and are attributable to natural geochemical conditions, not to Ash Pond D. *See* TSD,Ch. 7., pp. 426-428.

Because groundwater flows towards the Wabash River, Ameren determined potential impacts of groundwater discharge to the Wabash River. It did so by two different methods, described in Appendix E of Chapter 7 of the TSD, Chapter 8 of the TSD and Chapter 11 of the TSD, and concluded that it is unlikely that Ash Pond D adversely impacts river water quality. As discussed in Appendix E of Chapter 7 of the TSD and Chapter 8 of the TSD, the daily loading rate for boron while the pond was in use, conservatively considering river water concentrations under the worst case (low flow conditions), were insufficient to significantly increase the boron concentration in the river. With dewatering of Ash Pond D, the daily loading rate for boron was decreased by approximately 85%. Moreover, USEPA's STORET database for the closest downstream monitoring station, one mile south of Ash Pond D, indicates boron concentrations lower than the median concentrations in the upper migration zone upgradient of Ash Pond D. *See* TSD, Ch. 11.

Groundwater usage near the Station is limited. As set forth in Appendix H of Chapter 7 of the TSD, a search of the Illinois State Geological Survey IL WATER database identified six wells within one-half mile of Ash Pond D. Two of these wells are the plant production wells,

and the other four are irrigation wells utilized by adjacent property owners. *See* TSD, Ch. 7, pp. 482-484. All six of these closer-in wells pump from the deep alluvial aquifer, which, as discussed above, complies with Class I Groundwater Quality standards. Accordingly, Ash Pond D does not pose a risk to downgradient irrigation or production wells.

The City of Hutsonville's public water supply wells draw groundwater from the deep alluvial aquifer approximately one mile south of Ash Pond D. Considering the relatively large distance to the City's wells, the observed easterly groundwater flow direction in the deep alluvial aquifer at the site, and the fact that only one monitoring well (located at the edge of Ash Pond D) in this aquifer has experienced nominal ash leachate impacts, the City wells are not likely to ever be impacted by leachate from Ash Pond D. The 2009 Consumer Confidence Report confirms that the City's water supply does not exceed any minimum contaminant levels (MCLs) for drinking water. TSD Ch. 7, pp. 398-404.

There are no potable wells drawing groundwater from the upper migration zone downgradient or sidegradient of Ash Pond D. The Station's nearest residential neighbor to the south, who owns the field above a portion of the impacted groundwater, is connected to the City of Hutsonville's public water supply system.

Thus, Ameren's proposal is environmentally justified. Separate and apart from this proposed rulemaking, Ameren is establishing appropriate groundwater use restrictions for the site, and the adjacent property owner has agreed to certain use restrictions for the portion of the property that has been impacted by Ash Pond D.

IV. AVAILABLE TREATMENT OR CONTROL OPTIONS
(Section 102.210(d))

Ameren has investigated a variety of treatment or control options to close Ash Pond D in a way that protects human health and the environment. As discussed above, Ash Pond D was not constructed as a landfill and is not a landfill upon closure. Therefore, compliance with current landfill engineering and design standards is inappropriate. Furthermore, it would be impossible to comply with current landfill engineering and design standards without removing the entire volume of ash and disposing of the ash off-site or reconstructing Ash Pond D in accordance with landfill regulations and replacing the ash. Both options are infeasible due to the exorbitant costs. Accordingly, the proposed rule provides for the existing ash to remain in place, yet borrows methods for measurement and performance criteria from the landfill regulations where appropriate.

The viable closure options Ameren considered included various capping alternatives to minimize infiltration of surface water into the impoundment coupled with a groundwater collection trench to reduce elevated concentrations of constituents from Ash Pond D and eliminate any off-site impacts. *See* TSD, Ch. 5.

Ameren selected a geosynthetic membrane cap and final cover system that meets the performance requirements of the general landfill regulations (35 Ill.Adm.Code § 811.314) along with a groundwater collection trench. The combination of the geosynthetic membrane cap and groundwater collection trench is expected to allow the upper migration zone groundwater at the southern property boundary to come into compliance with Class I groundwater quality standards within approximately 7-12 years.

As discussed in Chapter 5 of the TSD, this closure option is both technically feasible and economically reasonable. The geosynthetic membrane cover was chosen because the cost is

consistent with other low-permeability layers, it is more effective at minimizing infiltration than many of the other options, and its use is consistent with existing Board requirements. The membrane and vegetative cover will minimize any infiltration of water due to precipitation and will route surface water from the site to the Wabash River. The groundwater collection trench will contain a perforated horizontal pipe surrounded by gravel bedding and will be located along the south property boundary. This groundwater management option was chosen because it is capable of preventing off-site migration of impacted groundwater in the upper migration zone, the cost is reasonable, and it is more effective than the other groundwater management options considered.

A. Ash Removal and On- v. Off-Site Disposal

As part of its screening of viable alternatives, Ameren considered several strategies of ash removal: (1) the injection of reagent material within the impounded ash to stabilize the material; (2) ash removal with off-site disposal; (3) ash removal, impoundment reconstruction, and the replacement of the ash in Ash Pond D; and (4) ash removal with on-site disposal. Ameren considered none of these alternatives to be economically feasible or technologically reasonable and, therefore, such alternatives were not considered beyond a preliminary screening phase.

1. Ash Stabilization

As discussed in Chapter 5 of the TSD, ash stabilization is costly, and there is uncertainty as to its technical feasibility. *See* TSD, Ch. 5, pp. 22-23. Ash stabilization is a technology designed to micro-encapsulate the ash in a cement-like matrix to minimize the rate of groundwater infiltration and leaching of ash constituents to groundwater. Once the ash is stabilized, groundwater flows around, rather than through the ash. However, there is a high degree of uncertainty as to the effectiveness of the technology. It is very hard to maintain the

continuity and integrity of the cement-like matrix. The costs associated with ash stabilization are estimated at approximately $20 million (2005 dollars). *See* TSD, Ch. 5, p. 73. Therefore, this alternative was not considered because of the technical uncertainties and high cost compared to other groundwater management alternatives.

2. Ash Removal with Off-Site Disposal

As discussed in Chapter 5 of the TSD, ash removal with off-site disposal is costly, and there is uncertainty as to its technical feasibility. *See* TSD, Ch. 5, pp.23-24. The effectiveness of this alternative is controlled largely by the ability to remove saturated ash from below the water table. In addition, the costs associated with the excavation, removal, and transport of nearly a million tons of saturated ash from Ash Pond D to another location are exorbitant. The cost of excavation and off-site disposal is estimated at approximately $34 million (2005 dollars). *See* TSD, Ch. 5, p. 73. Therefore, this alternative was not considered because of the technical uncertainties and the high cost compared to other groundwater management alternatives.

3. Ash Removal, Impoundment Reconstruction, and Disposal in Ash Pond D

As discussed in Chapter 5 of the TSD, reconstruction of Ash Pond D to include a low-permeability liner is costly and would not likely be feasible. *See* TSD, Ch. 5, p. 24. Reconstruction would require extensive excavation and relocation of all ash currently contained in the pond. Because of the lack of space to temporarily store the ash on-site, all of the ash would have to be either temporarily stored off-site or disposed of off-site. As discussed above, the cost of excavation and off-site disposal is approximately $34 million (2005 dollars). *See* TSD, Ch. 5, p. 73. Because this alternative has the same feasibility issues as removal and off-site disposal, detailed costs associated with this option were not evaluated, and this alternative was

not considered due to technical uncertainties and the high cost compared to other groundwater management alternatives.

4. Ash Removal and On-Site Disposal

In addition to the extraordinary costs associated with removal and on-site disposal, the on-site disposal alternative poses significant technical feasibility challenges because there is insufficient land on-site to construct dewatering and storage facilities large enough to handle the ash. Use of lined Ash Pond A is not feasible because it would completely fill that pond, rendering the Station inoperable. Therefore, this alternative was not considered because of operational impacts, technical uncertainties, and the high cost compared to other groundwater management alternatives.

Whether considering on-site redeposition after reconstruction of the pond or off-site disposal, removal of approximately 950,000 cubic yards of ash from Ash Pond D creates significant logistical hurdles and costs. The saturated ash alone would require unconventional excavation techniques, such as dredging or mechanical sluicing (*i.e.*, mudcat auger excavation). The physical configuration of the site and the narrow access around Ash Pond D significantly limit implementation of these unconventional excavation techniques. Therefore, such techniques would be ineffective in removing the ash. In addition, ash removal is not an economically reasonable option for Ameren. The costs to excavate 950,000 cubic yards of ash from ash from Pond D alone would be tens of millions of dollars, and when the costs of transportation and storage/disposal are factored in, ash removal is not economically reasonable.

For these reasons, ash removal does not present a viable alternative to the closure of Ash Pond D.

B. Groundwater Management Alternatives

As noted in the AECOM risk assessment, TSD Chapter 7, groundwater migration from Ash Pond D does not pose a risk to human health and the environment. Impacted groundwater is localized, and the impacted water is not and will not be utilized for potable water. Accordingly, treatment of groundwater is not necessary. Furthermore, there is no cost effective treatment for boron, the primary constituent of concern at the site. *See e.g.,* In the Matter of City of Galva Site Specific Water Quality Standard For Boron Discharges to Edwards River and Mud Creek, R09-11, (PCB 2/5/2209), summarizing the available treatment options and their upfront costs. Therefore, Ameren considered two groundwater management approaches: (1) installation of a groundwater collection trench and (2) construction of a low-permeability barrier wall.

1. Groundwater Collection Trench

As discussed in Chapter 5 of the TSD, Ameren has found that a perimeter collection trench along the southern property boundary is the most feasible control option to minimize the migration of contaminants offsite. *See* TSD, Ch. 5, p. 21. Such a trench is typically constructed by excavating downgradient of a contamination source and installing a drainage pipe surrounded by permeable granular soil backfill. Water within the trench would be collected and directed into the Station's existing water treatment impoundment system. Ameren analyzed the construction of a trench system along the Station's southern property boundary to mitigate off-site migration to the neighboring property to the south and performed groundwater transport modeling to evaluate its impact on groundwater quality. TSD Ch. 8.

Installation of a collection trench along the southern property boundary will isolate groundwater within Ash Pond D and preclude continued offsite migration. Impacted groundwater collected in the perimeter trench will be routed to Ash Pond B where it will mix

with sluice waters before eventual discharge into the Wabash River. The concentration levels of such discharge are expected to be well below current NPDES limits. TSD, Ch. 12.

Ameren has determined that the groundwater collection trench is an economically viable and environmentally justified option because it would mitigate the offsite migration of contaminants without any negative impact to the Wabash River.

2. Slurry Wall

As discussed in Chapter 5 of the TSD, Ameren examined the alternative of constructing a low-permeability barrier wall around Ash Pond D to prevent lateral migration of ash leachate. *See* TSD, Ch. 5, p. 22. Construction of a vertical barrier or "slurry wall" is dependent upon keying into a geologic formation with low hydraulic conductivity, such as shale bedrock or clay, that would prevent vertical migration of contaminants. As the Board noted in the promulgation of the Landfill Regulations, "[t]he slurry wall must extend into the lower confining layer to a depth necessary to maintain a continuous hydraulic barrier and prevent seepage." *Development, Operating, and Reporting Requirements for Non-Hazardous Waste Landfills*, R88-7, STS Response to Comments on Proposed Parts 807 Through 815, at 37 (Mar. 1, 1990). The sandstone bedrock beneath the western portion of Ash Pond D does not provide a sufficient key-in layer for an impermeable barrier wall. Without a low permeability formation in which to key the barrier wall, proper containment cannot be achieved. *See* TSD, Ch. 5, p. 22. This alternative is, therefore, technically infeasible.

C. Final Cover System

Ameren has determined that the geosynthetic membrane cover is an economically viable and environmentally justified option because it would mitigate the infiltration of surface water. In selecting the appropriate manner to cap Ash Pond D, Ameren evaluated a number of materials

ranging from a synthetic geomembrane product, compacted clay, layered earth, and a pozzolonic mix. These technologies and strategies are discussed in detail in the Chapter 5 of the TSD at pages 24-25 and 73-74. While the underlying variables and estimating contingencies varied among the particular options, preliminary estimates of construction capital costs ranged from $2.6 to $3.4 million dollars. Ameren selected the geomembrane product as it is a known and certain technology that is readily available and meets the performance criteria set forth in the Landfill Regulations.

V. ECONOMIC IMPACT
(Section 102.202(b))

In total, Ameren estimates that the capital costs associated with the selected closure scenario could range from $3 to $4 million dollars, excluding engineering design. *See* TSD, Ch. 5, pp. 73-74. Annual operating and maintenance costs associated with the trench and final cover system are expected to be around $50,000. *See* TSD, Ch. 5, pp. 73-74. Therefore, the selected closure scenario is economically viable to Ameren.

VI. ENVIRONMENTAL IMPACT OF PROPOSED RULE
(Section 102.210(d))

Ameren has also assessed the environmental impact of the selected geosynthetic membrane and groundwater collection trench for the closure of Ash Pond D, finding them to be protective of human health and the environment. Ameren hired consultant AECOM, Inc. to perform a human health and ecological risk assessment. The report, presented at Chapter 7 of the TSD, assesses the impacts of the closure plan, given the current and reasonably foreseeable future conditions and land use. The assessment analyzes the current groundwater uses in the vicinity of Ash Pond D based on the fact that the upper migration zone is not used for potable or

irrigation water supplies at or downgradient of the Station and that only wells in the deep alluvial aquifer are used for potable water supply and irrigation purposes. The risk assessment concludes that the closure plan and associated activities do not pose a threat to human health or the environment under current and reasonably foreseeable future conditions and land use. TSD, Ch. 7, p. 371.

As an added measure, Ameren and the adjacent landowner have entered into an agreement restricting the neighbor's groundwater use within the first 25 vertical feet of the water table and extending 500 feet south of the Hutsonville Station property boundary. TSD Ch. 9. The agreement provides that if required by either the Agency or the Board, Ameren may record the agreement with the chain of title.

VII. SYNOPSIS OF TESTIMONY
(Section 102.202(c))

Ameren will provide testimony in support of the facts and analyses described in this Statement of Reasons and in the Technical Support Document in support of its proposal.

Michael Bollinger, Principal Environmental Scientist for Ameren Services Company, will provide testimony regarding the surface impoundment system, Station operations, NPDES permit requirements, Ameren's efforts to evaluate regulatory solutions, suitable closure design options and associated costs, the closure alternative ultimately selected by the Company, the regulatory proposal itself including the Company's groundwater monitoring plan, and why existing rules do not appropriately cover the closure of Ash Pond D.

Bruce Hensel, Principal Hydrogeologist with Natural Resource Technology, Inc., will provide testimony regarding the hydrogeologic studies and groundwater modeling analysis.

Lisa Bradley, Senior Toxicologist and Regional Program Manager with AECOM, will provide testimony regarding the human health and ecological risk assessment performed to evaluate whether the closure activities are protective of human health and the environment.

VIII. MATERIALS INCORPORATED BY REFERENCE
(Sections 102.202(d), 102.202(e), and 102.210(e))

The proposed rulemaking does not incorporate any materials by reference. All materials relied upon, including any published study or research report, have been provided as part of the Technical Support Document or Ameren has provided web addresses for such materials. Where Ameren has provided only web addresses, it will provide hard copies upon request.

IX. CERTIFICATION OF AMENDMENT OF MOST RECENT VERSION OF BOARD'S RULES
(Section 102.202(h))

As Ameren proposes a new Subchapter and a new Part, none of the Board's existing rules are proposed for amendment. Therefore, the certification required by Section 102.202(h) is not appropriate for this proposal and has not been included.

X. PROPOSED RULE
(Sections 102.202(a) and 102.210(a))

The proposed rule would not replace the applicability of a general rule to Ash Pond D. As indicated above, there is a gap in the Board's Waste Disposal rules that this site-specific rule proposes to fill as to Ash Pond D.

Following is a section-by-section summary and explanation of the proposed rule. Attached as Attachment A to this Statement of Reasons is the proposal language of the rule.

Authority

Ameren proposes this rule pursuant to the authority granted the Board in Section 22 of the Illinois Environmental Protection Act and Section 8 of the Illinois Groundwater Protection Act. Because the proposed rule addresses the closure of a surface impoundment containing coal-combustion waste, the Board's authority to adopt the proposed rule most appropriately arises under Section 22 of the Act. While the surface impoundment in question was not subject to the provision of Subtitle G of the Board's rules during its operation, the closure of the surface impoundment with the coal-combustion waste in place most appropriately falls under the general provisions of Section 22 of the Act. Furthermore, because the proposed rule sets groundwater quality standards for the groundwater impacted by the surface impoundment, the Board's authority to adopt the proposed rule also arises under Section 8 of the Illinois Groundwater Protection Act.

Subchapter j

The purpose of proposed new Subchapter j is to provide a place in the Board's rules to address the closure of Ash Pond D at the Hutsonville Power Station to address a gap in the Board's existing Waste Disposal regulations.

Section 840.100: Purpose

Likewise, the purpose of Section 840.100 is to identify that Subpart A specifically addresses the closure of Ash Pond D at the Hutsonville Power Station.

Section 840.102: Applicability

Section 840.102 establishes that Part 840, Subpart A sets forth the entirety of the requirements that apply to the closure of Ash Pond D, including the site-specific groundwater quality standards applicable to the site and the portion of the neighboring property where

groundwater has been impacted by Ash Pond D. No other provisions of the Board's rules would apply to Ash Pond D and its closure upon adoption of this proposed site-specific rule.

Section 840.104: Definitions

This Section sets forth the definitions applicable to Subpart A.

For purposes of clarity and consistency with other Board rules, the definition of *Agency*, the Illinois Environmental Protection Agency, was included in the definitions.

The definition of *aquifer* was taken from Section 3(b) of the Illinois Groundwater Protection Act, 415 ILCS 55/3(b).

The definition of *Ash Pond D* was derived from the designation used by Ameren and referenced in various permits issued by the Agency to describe the surface impoundment at the Hutsonville Power Stations that is subject to the proposed rule.

For purposes of clarity and consistency with other Board rules, the definition of *Board*, the Illinois Pollution Control Board, was included the definitions.

The definition of *Hutsonville Power Station* was included for purposes of clarity.

The definitions of *operator* and *owner* describe the persons responsible for various requirements of the proposed rule and clarify that they are the owner or operator of Ash Pond D only.

The definition of p*rofessional engineer* was taken from Section 325 of the Professional Engineering Practice Act of 1989, 225 ILCS 325.

The definition of p*rofessional geologist* was taken from Section 28.2 of the Act, 415 ILCS 5/58.2.

The definition of *surface impoundment* was derived from Part 810 of the Board's solid waste regulations and revised to accurately describe Ash Pond D.

The definition of *Zone A* describes the unique site-specific conditions associated with the impacts from Ash Pond D. Zone A encompasses Ash Pond D and is depicted in the TSD at page 6.

The definition of *Zone B* describes the unique site-specific conditions associated with the impacts from Ash Pond D. Zone B encompasses the area impacted by Ash Pond D, including the area impacted on the neighboring property to the south of Ash Pond D. The area that comprises Zone B is depicted in the TSD at page 6.

Section 840.106: Abbreviations and Acronyms

Section 840.106 identifies acronyms used in Subpart A.

Section 840.108: Hydrogeologic Site Investigation

Section 840.108 requires the owner or operator of Ash Pond D to design and implement a hydrogeologic site investigation to provide the type of information necessary to assess the impacts of Ash Pond D, perform groundwater modeling, and establish a groundwater monitoring system. Ameren performed such an investigation in 1999. *See* TSD, Ch. 6. The information that Ameren collected at that time continues to be valid; therefore, the rule provides that Ameren may use that data rather than conducting a new hydrogeologic site investigation. Ameren proposes to include the requirement for the hydrogeologic site investigation in the rule for purposes of completeness.

Section 840.110: Groundwater Monitoring System

Section 840.110 requires the owner or operator of Ash Pond D to design and install a groundwater monitoring system that is sufficient to evaluate post-closure groundwater quality and trends. Subsequent to conducting the hydrogeologic site investigation in 1999, Ameren designed and installed a groundwater monitoring system on its property. Ameren proposes to

continue using components of that system pursuant to this rule. For purposes of completeness, Ameren believes that the rule should provide for the design and installation of a groundwater monitoring system but also that the rule should provide that components of the system that Ameren has already established meets the requirements of the rule. Section 840.110 also provides the standards for the design and construction of the wells, for their location, and for sample collection and analysis. The proposed standards are consistent with protocols and practices utilized by the Company in submitting monitoring data to the Agency as part of its ongoing compliance obligations with respect to the Station's Water Pollution Control and NPDES permits.

Section 840.112: Groundwater Monitoring Program

Section 840.112 sets forth the requirement that the owner or operator develop a groundwater monitoring program, the frequency of monitoring, and the constituents to be monitored at each well installed pursuant to Section 840.110. The monitoring frequency is similar to that prescribed in the Board's Landfill Regulations (e.g., 35 Ill. Adm. Code Section 811.319) and will provide sufficient data to monitor the effectiveness of the proposed closure activities. Ameren chose to monitor for the specified constituents set forth in subsection (a) of this Section because they are consistent with parameters required in the Station's NPDES Permit and boron and sulfate are indicator parameters for coal ash leachate and are very mobile. In addition, after discussions with the Agency, Ameren chose to monitor for the additional inorganic constituents specified in subsection (b) of this Section to properly monitor the effectiveness of the proposed closure activities.

Section 840.114: Compliance Zones

Historical operations of Ash Pond D have impacted groundwater. Ameren has conducted groundwater modeling and monitoring to determine the extent of the groundwater impacts from the operations of Ash Pond D. These areas of impacts have been delineated into two regions: Zone A and Zone B. Zone A is defined as the upper migration zone underlying Pond D. Zone B is the upper migration zone located east of Pond D, extending 500 feet south onto the adjacent landowner's property, and running to the Wabash River.

Since historic operations of Ash Pond D have already impacted groundwater, compliance with Class I groundwater quality standards is not feasible and is not consistent with Board regulations pertaining to other pre-existing fill operations. For example, the Board's Landfill Regulations establish a zone of attenuation around a landfill, in which constituents from landfill leachate are allowed to exceed applicable groundwater quality standards. 35 Ill. Adm. Code Section 811.320.

Section 840.114 sets the groundwater quality standards applicable within Zone A and Zone B. Section 840.114 provides that concentrations of parameters as monitored are authorized and no groundwater quality standards shall apply within Zones A and B. As provided in Section 840.116, the results of annual trend analyses will be used to determine compliance within Zone B.

Section 840.116: Demonstration of Compliance

Because historic operations of Ash Pond D have impacted groundwater, the rule utilizes a trend analysis to ensure that the closure strategy is effectively reducing the level of constituents over time. Section 840.116 requires the owner or operator to establish and identify no fewer than three downgradient monitoring wells located within Zone B for monitoring and evaluating

groundwater quality. For those wells located within Zone B, the owner or operator must perform an annual trend analysis for those constituents monitored in accordance with Section 840.112(a) and for all constituents monitored in accordance with Section 840.112(b) that are above Class I groundwater quality standards. Ameren will identify these wells in the closure and post-closure care plans. By identifying these wells in the closure and post closure care plans, the plans can be updated when necessary to account for new or replacement wells that will be used for monitoring and evaluating groundwater quality.

Upon determining the existence of a statistically significant increasing trend, as defined by Section 840.116(b), the owner or operator must perform an investigation to determine the cause of the increasing trend. If the cause is something other than Ash Pond D, then the owner or operator is required to notify the Agency of the superseding cause. If the investigation determines that the increasing trend is a result of Ash Pond D and monitoring frequency has been reduced, then the owner or operator must perform quarterly sampling. After four consecutive quarterly samples show no statistically significant increasing trend, sampling frequency may return to either semi-annual or annual, whichever may be the case.

If a statistically significant increasing trend attributable to Ash Pond D continues over a period of two or more consecutive years, the owner or operator must perform additional investigations to determine the extent of the impact and the effectiveness of the closure activities. The investigation may include more frequent inspections of the surface of the cover system, more frequent sampling of the monitoring wells, installation of additional wells, or one-time sampling of groundwater at other points. If the owner or operator concludes from the investigation that the Class I groundwater quality standards applicable outside of Zone B will be exceeded, the owner or operator must take appropriate action to mitigate the exceedance.

Section 840.118: Groundwater Collection Trench

Ameren has determined that it is appropriate to construct and operate a groundwater collection trench to address the impacts on groundwater emanating from Ash Pond D. Section 840.118 requires the owner or operator to install a groundwater collection trench long the southern property boundary. This trench will route groundwater collected to Ash Pond B, where it will be managed pursuant to Section 840.120 and discharged through the NPDES-permitted outfall from that pond.

Section 840.120: Groundwater Discharge System

Section 840.120 provides that any groundwater collected by the groundwater collection trench required by Section 840.118 must be managed in Ash Pond B prior to discharge from its NPDES-permitted outfall to ensure compliance with applicable water quality standards in the Wabash River. The routing of groundwater from the collection trench into Ash Pond B may require Ameren to amend its current NPDES permit. Ameren has confirmed that according to the 2008 303d list, segments of the Wabash River are impaired for PCBs and mercury but not for any of the constituents Ameren expects to discharge as a result of the management of groundwater via the groundwater collection trench and Ash Pond B's permitted NPDES-permitted outfall.[9]

Section 840.122: Final Slope and Stabilization

As part of the closure activities, there will be a final cover placed over Ash Pond D, in accordance with Section 840.124. Section 840.122 requires that all final slopes on that cover be designed and constructed so that they minimize erosion, support vegetation, and drain runoff. In addition, Ash Pond D must meet the stability criteria of 35 Ill.Adm.Code § 811.304 before the

[9] Partially Approved 2008 Illinois 303d List, http://www.epa.state.il.us/water/tmdl/303d-list.html.

final cover is installed. Subsection (c) allows the owner or operator to use coal combustion waste generated at the Hutsonville Power Station as part of that final grading and slope and makes a determination that such use does not require any independent approval from the Agency pursuant to Section 3.135 of the Act.

Section 840.124: Final Cover System

Section 840.124 identifies the standards for the final cover system. Ameren has determined that a geosynthetic membrane is the appropriate type of cover for Ash Pond D. Such a cover is consistent with those required by the Board's Landfill Regulations and will adequately minimize infiltration. Ameren considered a variety of cap alternatives such as compacted clays and pozzolonic materials but selected the geosynthetic membrane as it readily complies with existing landfill performance criteria, is commercially available and a technologically known to the Company, and represents an economically viable alternative.

Subsection (b) identifies the standards for the upper, final protective layer. The final protective layer must cover all of the low permeability layer and be at least three feet thick or the thickness necessary to protect the low permeability layer from freezing and to minimize root penetration into the low permeability layer. Additionally, the final protective layer must be of a material that will support vegetation. Subsection (b)(4) requires that the final protective layer be installed as quickly as possible after installation of the low permeability layer to protect the low permeability layer from the elements. Finally, subsection (b)(5) requires vegetation on the final protective layer to protect it from wind and water erosion.

Section 840.126: Closure Plan

The proposed rule requires the owner or operator to prepare a closure plan that must be submitted to the Agency within 180 days of the effective date of this rule. A copy of the plan must also be retained on-site or at a location specified in the closure plan.

Section 840.128: Contents of Closure Plan

Section 840.128 sets forth the contents required to be included in the closure plan. Subsection (a) requires a site map that includes all of the pertinent features and buildings at the Hutsonville Power Station, including all of the surface impoundments, all existing and proposed groundwater collection trenches associated with Ash Pond D, all existing and proposed monitoring wells, and diagrams identifying Zone A and Zone B. Subsection (b) requires a detailed description of Ash Pond D, including its contents, the volume of material contained in Ash Pond D, and an analysis of the structural integrity of Ash Pond D. Subsection (c) requires a description of the closure activities planned and already performed. Subsection (d) requires a description of the hydrogeologic site investigation, and Subsection (e) requires a description of the groundwater trend analysis. Subsections (f) and (g) require descriptions of the groundwater monitoring system and program. Subsection (h) requires identification of the monitoring wells where trend analysis is being performed, which would be one or more of the groundwater monitoring wells included under subsections (f) and (g). Subsection (i) requires a description of the final cover system. Finally, subsection (j) requires estimates of the amount of time it will take for Ameren to complete closure of Ash Pond D, the cost of that closure, and the cost of post-closure care.

Section 840.130: Modification of Existing Permit

The proposed rule requires that groundwater collected in the groundwater collection trench be routed to Ash Pond B for treatment and disposal. In 2005, Ameren filed a NPDES renewal application for Ash Pond B. However, at the time that Ameren applied for renewal of the NPDES permit, it did not know that groundwater collected in the groundwater collection trench for Ash Pond D would be routed to Ash Pond B for treatment and disposal. Therefore, within 180 days of the effective date of this rule, Ameren will amend its application for the NPDES permit for Ash Pond B.

Section 840.132: Closure Report and Certification of Completion of Closure

Within 90 days after completing all closure activities described in the closure plan, the owner or operator of Ash Pond D must prepare and submit to the Agency a report that includes a certification by a professional engineer that Ash Pond D was closed as provided in the closure plan and all construction quality assurance reports required by Section 840.124(c)(2).

Section 840.134: Post-Closure Maintenance of Cover System

Section 840.134 requires the owner or operator of Ash Pond D to maintain the cover system. The subsections specify the details of that maintenance: (a) annual inspections until completion of the post-closure care report; (b) filling all rills, gullies, and crevices at least six inches deep and recontouring areas prone to erosion; (c) repairing all eroded and scoured drainage channels, including replacing lining materials as appropriate; (d) filling and recontouring all holes and depressions to prevent standing water; (e) revegetating areas in excess of 100 square feet where the vegetation has failed or been eroded away, if the area was previously vegetated; and (f) repair all tears, rips, punctures, and other damage to the geosynthetic membrane, as needed.

Section 840.136: Post-Closure Care Plan

Section 840.136 requires the owner or operator of Ash Pond D to prepare and submit to the Agency a post-closure care plan and to maintain it on-site or at a location specified in the post-closure care

Section 840.138: Contents of Post-Closure Care Plan

This Section identifies the required contents of the post-closure care plan. Subsection (a) requires a description of the post-closure maintenance activities or program, including a description of the inspections to be performed to ensure the stability of the impoundment. Subsections (b) and (c) require descriptions of the groundwater monitoring system and program. Although the groundwater monitoring system will likely be the same as identified in the closure plan, the groundwater monitoring program carried out during post-closure may be somewhat different from the program carried out during closure. Subsection (d) requires identification of the monitoring wells where trend analysis is being performed. Subsection (e) requires inclusion of the certification of closure.

Section 840.140: Post-Closure Report and Certification of Completion of Post-Closure Care Plan

Section 840.140 requires the owner or operator of Ash Pond D to prepare and submit a report within 60 days of completing the requirements in Section 840.134 and 840.112(a)(3) describing the completion of post-closure activities and include a certification by a professional engineer or geologist that the requirements of Section 840.134 and 840.112(a)(3) have been met.

Section 840.142: Recordkeeping and Reporting Requirements

Section 840.142 requires the owner or operator of Ash Pond D to file groundwater monitoring data electronically with the Agency no later than 30 days after the end of the sampling period and an annual report with the Agency no later than January 31 of each year

during the closure and post-closure periods. These annual reports must be filed during both closure and the entirety of the post-closure care period until the owner or operator of Ash Pond D has complied with the requirements of Section 840.140.

The annual reports must provide summaries of all groundwater monitoring data generated during the preceding year, identify any closure or post-closure activities completed during the preceding year, and summarize modifications made to the closure or post-closure plan during the preceding year.

Subsection (d) requires the owner or operator of Ash Pond D to maintain all monitoring and modeling data on-site or at a location specified in the closure plan or post-closure plan for a period of 10 years following generation of the data. Subsections (e) and (f) requires the owner or operator of Ash Pond D to maintain the closure and post-closure care plan. The closure plan is to be maintained on-site or at a location specified in the plan until the post-closure care period ends. The post-closure care plan is to be maintained on-site or at a location specified in the plan for 10 years following the certification of the post-closure report.

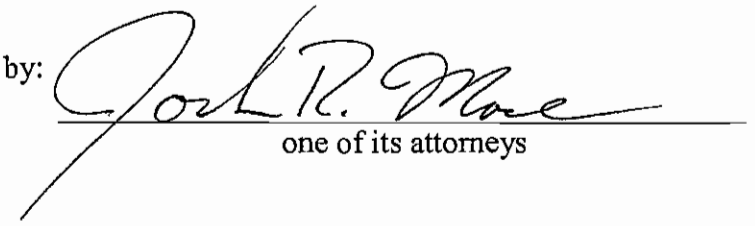
Section 840.144: Modification of Closure or Post-Closure Care Plan

Section 840.144 allows the owner or operator of Ash Pond D to modify the closure plan or post-closure plan as appropriate when there have been changes at the site. Any modification must be in accordance with the proposed rule and submitted to the Agency pursuant to Section 840.142(c)(3). Possible changes at the site that would require a modification of the closure or post-closure plan could be a change in the placement of the final cover system, a decrease in the efficiency or performance of the groundwater collection system, a change in the treatment or storage of the groundwater from the groundwater collection system (*e.g.*, some change to Ash Pond B), a change in the final slope or stabilization grade or material, a change in the location of

a monitoring well, a change to the groundwater monitoring system, or a change in the groundwater monitoring program. A change to the groundwater monitoring system or a monitoring well could be performed in response to damage to one of the groundwater monitoring wells such that its integrity was lost. A change to the final slope could be required if excessive erosion or settling of the impounded material occurs or if unanticipated weather events require modifications.

Respectfully submitted,

AMEREN ENERGY GENERATING COMPANY

by: 

one of its attorneys

Dated: May 19, 2009

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ATTACHMENT A

ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF PROPOSED RULE

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

PART 840
SITE-SPECIFIC CLOSURES OF SURFACE IMPOUNDMENTS

SUBPART A: CLOSURE OF ASH POND D, HUTSONVILLE POWER STATION

Section

ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF PROPOSED RULE

AUTHORITY: Implementing Section 22 of the Environmental Protection Act (415 ILCS 5/22) and Section 8 of the Illinois Groundwater Protection Act (415 ILCS 55/8), and authorized by Sections 22, 27, and 28 of the Environmental Protection Act (415 ILCS 5/22, 27, and 28) and Section 8 of the Illinois Groundwater Protection Act (415 ILCS 55/8).

SOURCE: Adopted in R09-_____ at _____ Ill. Reg. _____, effective _____, 2009.

SUBPART A: CLOSURE OF ASH POND D, HUTSONVILLE POWER STATION

Section 840.100 Purpose

This Subpart provides for the closure of Ash Pond D located at the Hutsonville Power Station, 15142 East 1900 Avenue, Hutsonville, Crawford County, Illinois.

Section 840.102 Applicability

This Subpart exclusively applies to the closure of Ash Pond D, located at the Hutsonville Power Station, and particularly, no other Part of Subtitle G applies to the closure of Ash Pond D.

Section 840.104 Definitions

Unless otherwise specified, the definitions of the Environmental Protection Act ("Act") [415 ILCS 5] apply to this Subpart. The following definitions also apply:

"Agency" means the Illinois Environmental Protection Agency.

"Aquifer" means saturated (with groundwater) soils and geologic materials which are sufficiently permeable to readily yield economically useful quantities of water to wells, springs, or streams under ordinary hydraulic gradients. [415 ILCS 55/3(b)]

"Ash Pond D" means the surface impoundment designated as Ash Pond D, located at the Hutsonville Power Station, 15142 East 1900 Avenue, Hutsonville, Crawford County, Illinois.

"Board" means the Illinois Pollution Control Board.

"Hutsonville Power Station" means the electric generating station located at 15142 East 1900 Avenue, Hutsonville, Crawford County, Illinois.

"Operator" means the person responsible for the operation of Ash Pond D.

"Owner" means the person who owns Ash Pond D.

"Professional engineer" means a person who has registered and obtained a seal pursuant to the Professional Engineering Practice Act of 1989. [225 ILCS 325]

"Professional geologist" means a person licensed under the laws of the State of Illinois to practice as a professional geologist. [415 ILCS 5/58.2]

"Surface impoundment" means for purposes of this Subpart a natural topographic depression, a man-made excavation, or a diked area used to retain coal combustion wastes and free liquids that was designed and constructed prior to 1990 and currently operates under or has been subject to a water pollution control permit issued by the Agency. For purposes of this Subpart, a surface impoundment that contains coal combustion waste is not a landfill.

"Zone A" means for purposes of this Subpart the three dimensional region of groundwater that has been impacted by Ash Pond D bounded by a vertical plane 25 feet from the outside edge of the bermed area surrounding Ash Pond D to the south, north, east, and west and extending to the base of the uppermost aquifer.

"Zone B" means the three dimensional region of the uppermost aquifer outside Zone A and located 500 feet South of the Hutsonville Power Station boundary, in the North Half of Section 20, Township 8 North, Range 11 West of the Second Principal Meridian, Crawford County, Illinois, lying East of Township Road 254A which extends in a Northwesterly direction across said Section 20; the area located 500 feet South of the Hutsonville Generation Plant boundary, in the North Half of Section 21, Township 8 North, Range 11 West of the Second Principal Meridian, Crawford County, Illinois, lying West of the Wabash River; and the area located within the Hutsonville Power Station, North of the southern Hutsonville Power Station boundary, in the South Half of Section 17, Township 8 North, Range 11 West of the Second Principal Meridian, Crawford County, Illinois, lying West of the Wabash River and extending from the river towards Ash Pond D 2,040 feet, turning North and extending 940 feet towards the Wabash

River, and turning Southeasterly and extending 2,200 feet to the point of origin.

Section 840.106 Abbreviations and Acronyms

Agency	Illinois Environmental Protection Agency
CQA	Construction Quality Assurance
mg/L	milligrams per liter
NPDES	National Pollutant Discharge Elimination System
TDS	total dissolved solids

Section 840.108 Hydrogeologic Site Investigation

The owner or operator of Ash Pond D must design and implement a hydrogeologic site investigation of Ash Pond D to develop hydrogeologic information for the uses set forth below. Information from any hydrogeologic site investigation performed since 1999 may be used to satisfy the requirements of this Section. The hydrogeologic site investigation shall be used:

a) To provide information to define hydrogeology and to assess the groundwater impacts associated with Ash Pond D;

b) To provide information to perform a model to assess the groundwater impacts associated with closure of Ash Pond D; and

c) To provide information to establish a groundwater monitoring system.

Section 840.110 Groundwater Monitoring System

The owner or operator of Ash Pond D must design and install a groundwater monitoring system that enables it to monitor groundwater to evaluate post-closure groundwater quality and trends. Any groundwater monitoring system in operation since 1999 that complies with the standards set forth in this Section may be used to satisfy the requirements of this Section.

a) Standards for monitoring well design and construction.

1) All monitoring wells must be cased in a manner that maintains the integrity of the bore holes.

2) Wells must be screened to allow sampling only at the desired interval.

3) All wells must be covered with vented caps, unless located in flood-prone areas, and equipped with devices to protect against tampering and damage.

b) Standards for the location of monitoring points.

1) A network of no fewer than three monitoring points must be established at locations downgradient of Ash Pond D with respect to groundwater flow.

2) Monitoring wells must be located in statigraphic horizons that could serve as contaminant pathways.

c) Standards for sample collection and analysis.

1) The owner or operator of Ash Pond D must utilize sampling and analysis procedures that ensure that collected samples are representative of the zone being monitored and that the results can be relied upon to provide data representative of the zone being monitored.

2) The owner or operator of Ash Pond D must establish a quality assurance program.

Section 840.112 Groundwater Monitoring Program

The owner or operator of Ash Pond D must develop a groundwater monitoring program that enables it to monitor groundwater to evaluate post-closure groundwater quality. The owner or operator must begin the groundwater monitoring program upon completion of the final cover system installation. The groundwater monitoring program must comply with the following requirements:

a) The owner or operator of Ash Pond D must monitor each well installed pursuant to Section 840.110 for the following constituents on a quarterly basis for the first five years after closure: boron, iron, manganese, pH, sulfate, and TDS. The owner or operator must also monitor for the

following: specific conductance, groundwater elevation, and monitoring well depth.

1) After five years, the owner or operator of Ash Pond D may reduce the frequency of groundwater monitoring to semi-annual sampling upon a determination of all of the following:

   A) That monitoring effectiveness will not be compromised by the reduced frequency of monitoring;

   B) That sufficient quarterly data has been collected to characterize groundwater; and

   C) That concentrations of constituents monitored pursuant to subsection (a) of this Section at the downgradient monitoring wells inside Zone B show no statistically significant increasing trends that can be attributed to Pond D.

2) Beginning fifteen years after closure, or five years after reducing the monitoring frequency to semi-annual pursuant to subsection (a)(1) of this Section and concentrations of constituents monitored pursuant to subsection (a) of this Section at the downgradient monitoring wells inside Zone B show no statistically significant increasing trends for the five years after reducing the monitoring frequency to semi-annual, the owner or operator of Ash Pond D may reduce monitoring frequency to annual sampling.

3) The owner or operator of Ash Pond D may discontinue groundwater monitoring for the constituents in subsection (a) of this Section when no statistically significant increasing trend that can be attributed to Pond D is detected in the concentration of any such constituent at the downgradient monitoring wells inside Zone B for three consecutive years after changing to an annual monitoring frequency pursuant to subsection (a)(2) of this Section and all concentrations of constituents monitored in accordance with Section 840.112 are at or below Class I groundwater quality standards for a period of five years.

b) The owner or operator of Ash Pond D must monitor each well installed pursuant to Section 840.110 for the following inorganic constituents on an annual basis until monitoring pursuant to subsection (a) of this Section is discontinued in accordance with Section 840.112(a)(3): antimony, arsenic, barium, beryllium, cadmium, chloride, chromium, cobalt, copper, cyanide, fluoride, lead, mercury, nickel, nitrate as N, selenium, silver, thallium, and zinc.

1) Monitoring of inorganic constituents must be performed during the first quarter of each monitoring year as the monitoring year is defined in the closure plan.

2) Any inorganic constituent listed in this subsection observed to exceed its Class I groundwater quality standard must be monitored on a quarterly basis. After four consecutive quarterly samples show no exceedance of the Class I groundwater quality standard for such constituent, the owner or operator of Ash Pond D may reduce the monitoring frequency of that constituent to annual sampling.

c) Elements of the Groundwater Monitoring Program may be modified upon agreement with the Agency, so long as the modification is in accordance with the provisions of this Subpart.

Section 840.114 Compliance Zones

a) No generally applicable groundwater quality standards apply within Zone A or Zone B. Within Zone A and Zone B, from the effective date of this rule and continuing indefinitely thereafter, concentrations of constituents may exceed any generally applicable groundwater quality standard established by the Board or the Agency, including the Class I groundwater quality standards, as set forth in 35 Ill. Adm. Code 620.

b) As provided in Section 840.116 of this Subpart, the results of annual trend analyses will be used to determine compliance within Zone B.

Section 840.116 Demonstration of Compliance

a) The owner or operator of Ash Pond D must establish and identify in the

closure plan and post-closure care plan no fewer than three downgradient monitoring wells located within Zone B for determining groundwater quality.

b) The owner or operator of Ash Pond D must perform an annual trend analysis for each monitoring well located in Zone B for all constituents monitored in accordance with Section 840.112(a) of this Subpart and for all constituents monitored in accordance with Section 840.112(b) that are above Class I groundwater quality standards, based on a minimum of four consecutive samples, by applying Sen's Estimate of Slope. If the results show an increasing trend, a Mann-Kendall analysis must be performed at 95 percent confidence to determine whether the increasing trend is statistically significant.

c) The owner or operator of Ash Pond D must investigate the cause of a statistically significant increasing trend as determined under subsection (b) of this Section. If the statistically significant increasing trend occurs during post-closure care, such investigation must include more frequent inspection of the surface of the cover system and evaluation of the effectiveness of the groundwater collection trench required by Section 840.118 of this Subpart.

1) If an investigation performed in accordance with subsection (c) of this Section attributes a statistically significant increasing trend to a superseding cause, the owner or operator of Ash Pond D must notify the Agency in writing, stating the cause of the increasing trend and providing the rationale used in such a determination.

2) If there is no superseding cause for the statistically significant increasing trend and sampling frequency has been reduced pursuant to Section 840.112(a)(1) or (a)(2) of this Subpart to semi-annual or annual sampling, the owner or operator must return to a quarterly sampling schedule. After four consecutive quarterly samples show no statistically significant increasing tend, the frequency of groundwater monitoring may be returned to either semi-annual or annual, whichever frequency was utilized prior to the return to quarterly sampling.

d) If a statistically significant increasing trend is observed to continue over a period of two or more consecutive years and there are no superseding

causes for the trend, the owner or operator must perform the following:

1) A hydrogeologic investigation;

2) An investigation to determine there are no exceedences of Class I standards attributable to Ash Pond D at the outer edge of Zone B; and

3) Additional site investigation, if necessary.

e) Based on the outcome of the activities required by subsection (d) of this Section, the owner or operator of Ash Pond D must take action to mitigate exceedances occurring at the outer edge of Zone B.

f) The owner or operator of Ash Pond D must submit an annual report to the Agency with the results of the trend analysis required by subsection (b) of this Section and supporting data. The annual report must include a discussion of any statistically significant increasing trends within Zone B and a copy of any notice submitted to the Agency pursuant to subsection (c)(1) of this Section.

Section 840.118 Groundwater Collection Trench

The owner or operator of Ash Pond D must design, install, and, consistent with wastewater discharge permit conditions, operate a groundwater collection trench along the south property boundary of the Hutsonville Power Station to prevent migration of groundwater impacted by Ash Pond D south of the property boundary. Upon completion of the post-closure care certification required by Section 840.140 of this Subpart, the owner or operator of Ash Pond D may discontinue operation of the groundwater collection trench.

Section 840.120 Groundwater Discharge System

Groundwater collected in the groundwater collection trench must be directed to Ash Pond B at the Hutsonville Power Station consistent with wastewater discharge permit conditions. Groundwater collected must be routed through the outfall from Ash Pond B as authorized by the Hutsonville Power Station's NPDES permit in compliance with applicable water quality standards for the Wabash River.

Section 840.122 Final Slope and Stabilization

a) All final slopes must be designed and constructed to a grade capable of supporting vegetation and minimizing erosion.

b) All slopes must be designed to drain runoff away from the cover and to prevent ponding.

c) Ash Pond D must meet the stability criteria of 35 Ill. Adm. Code 811.304. The owner or operator may use coal combustion waste generated at the site in establishing the final grade and slope. Any coal combustion waste used to establish the final grade and slope is considered coal combustion byproduct, and its use does not require any independent approval pursuant to 415 ILCS 5/3.135.

Section 840.124 Final Cover System

The owner or operator of Ash Pond D must design and install a final cover system for Ash Pond D. The final cover system must consist of a low permeability layer and a final protective layer.

a) Standards for the low permeability layer. The low permeability layer must be designed to minimize surface infiltration and must consist of a geosynthetic membrane cover and be constructed in accordance with the following standards:

1) The geosynthetic membrane must have a minimum thickness of 40 mil (0.04 inches) and a hydraulic conductivity of 1×10^{-7} centimeters per second or less.

2) The geosynthetic membrane must be placed over a prepared base free from sharp objects and other materials that may cause damage.

b) Standards for the final protective layer.

1) The final protective layer must cover the entire geosynthetic membrane.

2) The final protective layer must be at least three feet thick and must

be sufficient to protect the geosynthetic membrane from freezing and minimize root penetration of the geosynthetic membrane.

3) The final protective layer must consist of soil material capable of supporting vegetation.

4) The final protective layer must be placed as soon as possible after placement of the geosynthetic membrane.

5) The final protective layer must be covered with vegetation to minimize wind and water erosion.

c) Construction Quality Assurance Program. The final cover system must be constructed according to a construction quality assurance program that meets the following requirements:

1) The operator must designate a construction quality assurance ("CQA") officer.

2) At the end of each week of construction of the final cover system until construction is complete, a summary report must be either prepared by the CQA officer or under the supervision of the CQA officer. The report must include descriptions of the weather, locations where construction occurred during the previous week, materials used, results of testing, inspection reports, and procedures used to perform the inspections. The CQA officer must certify the report.

3) The CQA officer must exercise judgment to certify the following:

A) That the bedding material contains no undesirable objects;

B) That the closure plan has been followed;

C) That the anchor trench and backfill are constructed to prevent damage to the geosynthetic membrane;

D) That all tears, rips, punctures, and other damage are repaired; and

E) That all geosynthetic membrane seams are properly constructed and tested in accordance with manufacturer's specifications.

Section 840.126 Closure Plan

a) Within 180 days after the effective date of this rule, the owner or operator of Ash Pond D must prepare and submit to the Agency a closure plan.

b) The owner or operator of Ash Pond D must maintain the closure plan onsite or at a location specified in the closure plan.

Section 840.128 Contents of Closure Plan

The closure plan must contain the following information or documents:

a) Site map. The site map must identify all pertinent features and buildings at the Hutsonville Power Station and must clearly identify the following:

1) All of the surface impoundments located at the site;

2) All existing and proposed groundwater collection trenches associated with the operation or closure of Ash Pond D;

3) All existing and proposed groundwater monitoring wells; and

4) Diagrams depicting Zone A and Zone B.

b) Description of Ash Pond D. The description of Ash Pond D must include all of the following information:

1) A description of the contents of Ash Pond D;

2) The estimated volume of material contained in Ash Pond D; and

3) An analysis of the structural integrity of Ash Pond D.

c) Description of the closure activities to be performed in accordance with

this Subpart and any additional activities performed by the owner or operator to close Ash Pond D, including any dewatering.

d) Description of the hydrogeologic site investigation required by Section 840.108 of this Subpart.

e) Description of the groundwater trend analysis methods as required by Section 840.116 of this Subpart.

f) Description of the groundwater monitoring system required by Section 840.110 of this Subpart.

g) Description of the groundwater monitoring program required by Section 840.112 of this Subpart.

h) Identification of the location of the monitoring wells used for trend analyses required by Section 840.116 of this Subpart.

i) Description of the final cover system required by Section 840.124 of this Subpart.

j) Estimates of the amount of time to complete closure, the cost of closure, and the cost of post-closure care.

Section 840.130 Modification of Existing Permits

The owner or operator of Ash Pond D must timely submit to the Agency an application to revise any state operating permit or NPDES permit issued by the Agency as required by Section 840.118 of this Subpart.

Section 840.132 Closure Report and Certification of Completion of Closure

No later than 90 days after the completion of all closure activities required by this Subpart, the owner or operator of Ash Pond D must prepare and submit to the Agency a closure report. The report must include certification by a professional engineer that Ash Pond D has been closed in accordance with the closure plan required by Section 840.126 of this Subpart and include all CQA reports required by Section 840.124(c)(2).

Section 840.134 Post-Closure Maintenance of Cover System

The owner or operator of Ash Pond D must maintain the surface of the cover system.

a) After closure and until completion of the post-closure care report, the owner or operator of Ash Pond D must conduct annual inspections of the cover system.

b) The owner or operator of Ash Pond D must fill all rills, gullies, and crevices six inches or deeper identified during the inspection. Areas identified as particularly susceptible to erosion must be recontoured.

c) The owner or operator of Ash Pond D must repair all eroded and scoured drainage channels identified during inspections and replace lining material, if necessary.

d) The owner or operator of Ash Pond D must fill and recontour all holes and depressions created by settling so as to prevent standing water.

e) The owner or operator of Ash Pond D must revegetate all areas in excess of 100 square feet, cumulative, with failed or eroded vegetation that had previously been vegetated.

f) The owner or operator of Ash Pond D must repair all tears, rips, punctures, and other damage to the geosynthetic membrane, if necessary.

Section 840.136 Post-Closure Care Plan

a) The owner or operator of Ash Pond D must prepare and submit to the Agency a post-closure care plan.

b) The owner or operator must maintain the post-closure care plan onsite or at a location specified in the post-closure care plan.

Section 840.138 Contents of Post-Closure Care Plan

The post-closure care plan must include the following elements:

a) Description of the post-closure care activities required by Section 840.134 of this Subpart;

b) Description of the groundwater monitoring system required by Section 840.110 of this Subpart;

c) Description of the groundwater monitoring program required by Section 840.112 of this Subpart;

d) Identification of the location of the monitoring wells used for trend analyses required by Section 840.116 of this Subpart; and

e) A copy of the certification of closure required by Section 840.132 of this Subpart.

Section 840.140 Post-Closure Report and Certification of Completion of Post-Closure Care Plan

The owner or operator of Ash Pond D must prepare and submit to the Agency a Post-Closure Report within 60 days after satisfying the requirements of Sections 840.134 and 840.112(a)(3) of this Subpart. The Post-Closure Report must include a certification by a professional engineer or professional geologist that the requirements of Section 840.134 and Section 840.112(a)(3) of this Subpart have been met.

Section 840.142 Recordkeeping and Reporting Requirements

a) The owner or operator of Ash Pond D must file groundwater monitoring data electronically with the Agency each year during the closure of Ash Pond D and for the entire post-closure care period. The owner or operator must submit sampling data no later than 30 days after the end of the sampling period.

b) The owner or operator of Ash Pond D must file an annual report with the Agency no later than January 31 of each year during the closure of Ash Pond D and for the entire post-closure care period. Once the requirements of Section 840.140 of this Subpart have been met, annual reports are no longer required.

c) All annual reports must contain the following information:

1) Trend analyses of all groundwater monitoring data generated by

the groundwater monitoring program required by Section 840.112 of this Subpart during the preceding year;

2) The completed closure or post-closure activities performed during the preceding year; and

3) A summary of all modifications made to the closure plan or post-closure care plan during the preceding year and copies of the updated closure and post-closure plans reflecting any such modifications.

d) The owner or operator of Ash Pond D must maintain onsite or at a location specified in the closure or post-closure care plan all monitoring data and trend analysis data for 10 years following generation of the data.

e) The owner or operator of Ash Pond D must maintain the closure plan until the end of the post-closure care period.

f) The owner or operator of Ash Pond D must maintain the post-closure care plan for 10 years following the certification of the Post Closure Report as required by Section 840.140.

g) All reports and notifications required under this Subpart to be submitted to the Agency must be submitted to the Bureau of Land, 1021 South Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276 or electronically as authorized and directed by the Agency.

Section 840.144 Modification of Closure or Post-Closure Care Plan

The owner or operator of Ash Pond D may modify the closure or post-closure plan so long as the modification is in accordance with the provisions of this Subpart. The updated plans must be filed with the Agency pursuant to Section 840.142(c)(3) of this Subpart.

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

In the Matter of:	)	
	)	
PROPOSED RULES ESTABLISHING	)	**R09-21**
35 ILL. ADM. CODE SUBCHAPTER j,	)	**(Rulemaking – Land)**
PART 840, AND SUBPART A,	)	
SITE-SPECIFIC RULES PROVIDING	)	
FOR THE CLOSURE OF ASH POND	)	
D AT THE HUTSONVILLE POWER	)	
STATION.	)	

MOTION TO WAIVE SIGNATURE REQUIREMENT

NOW COMES Proponent, AMEREN ENERGY GENERATING COMPANY, by and through its attorneys, SCHIFF HARDIN LLP, and, pursuant to 35 Ill.Adm.Code § 101.500, moves to waive the signature requirements of Section 102.200 of the Board's regulations (35 Ill.Adm.Code § 102.200) and Section 28(a) of the Environmental Protection Act (415 ILCS 5/28(a)). Ameren is seeking to amend the Board's waste rules by adding new Subchapter j, Surface Impoundments, and new Part 840, Closure of Surface Impoundments, and new Subpart A. In support of its motion, Ameren states as follows:

1. Ameren is proposing to add a new Subchapter and new Part to the Board's rules because none of the current rules appropriately address the proper closure of surface impoundments or ash ponds at coal-fired power plants. Therefore, Ameren is proposing a site-specific rule to address this gap in the Board's rules.

2. Proposed Subpart A contains site-specific rules providing for the closure of Ash Pond D at Ameren's Hutsonville Power Station in Crawford County, Illinois.

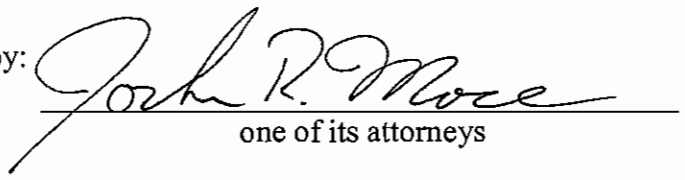
3. The scope of the proposed rule is limited to the Hutsonville Power Station. Therefore, for Ameren to have to obtain 200 signatures would present an added expense that is burdensome and unnecessary.

4. The Board has a long-standing practice of granting signature waiver requests for site-specific rulemakings.

WHEREFORE, for the reasons set forth above, Ameren respectfully requests that the Board waive the signature requirement for its proposed site-specific rule.

Respectfully submitted,

AMEREN ENERGY GENERATING COMPANY

by: 
one of its attorneys

Dated: May 19, 2009

Renee Cipriano
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312-258-5500
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BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

In the Matter of:	)	
	)	
PROPOSED RULES ESTABLISHING 35 ILL. ADM. CODE SUBCHAPTER j, PART 840, AND SUBPART A, SITE-SPECIFIC RULES PROVIDING FOR THE CLOSURE OF ASH POND D AT THE HUTSONVILLE POWER STATION.	)	**R09-21 (Rulemaking – Land)**

MOTION FOR EXPEDITED REVIEW

NOW COMES Proponent, AMEREN ENERGY GENERATING COMPAN., by and through its attorneys, SCHIFF HARDIN LLP, and, pursuant to 35 Ill.Adm.Code § 101.512, moves the Board to set this matter for First Notice as soon as possible, accept the proposal for hearing, and move this rulemaking forward as expeditiously as possible. Ameren is seeking to amend the Board's Waste rules by adding new Subchapter j, Surface Impoundments, and new Part 840, Closure of Surface Impoundments, and new Subpart A. In support of its motion, Ameren states as follows:

1. Over a number of years, Ameren has engaged in discussions with the Illinois Environmental Protection Agency ("Agency") regarding the standards under which Ash Pond D at the Hutsonville Power Station should be closed. Most recently, Ameren and the Agency have had productive discussions regarding regulatory language that would apply to the closure of this ash pond. None of the currently existing rules apply.

2. For that reason, Ameren finally sought an adjusted standard in AS 09-1 in the late summer of 2008. On March 5, 2009, the Board dismissed Ameren's petition, finding that a site-specific rule is the more appropriate form of relief. Order, p. 11, AS 09-1 (March 1, 2009).

3. In the meantime, two events have transpired: (i) Ameren has offered the plant for sale, and (ii) public and regulatory interest in ash ponds at coal-fired power plants has heightened nationwide, including in Illinois.

4. Ameren has placed the Hutsonville Power Plant on the market for sale to reduce the cost to Ameren of operating the plant. Although having already closed Ash Pond D would present Hutsonville in a better light to a potential buyer, having at least a rule that sets forth the parameters under which Ash Pond D may be closed would be beneficial. Regulatory certainty would provide a buyer with information sufficient to estimate and plan for environmental compliance obligations.

5. Although ash ponds are permitted facilities essential to water treatment at many power plants, officials are now recognizing the need to address aspects of ash pond management. In fact, the Agency has recently asked all power plant operators in the state to voluntarily monitor groundwater at ash impoundments. Ameren intends to comply with that request, and such information will be valuable in determining the best manner of closing other Ameren surface impoundments with such structures reach end of life. In addition, the U.S. Environmental Protection Agency has expressed an intention to visit various ash impoundments across the country, including several in Illinois, to gather information regarding structural stability and design issues. Finally, the Board indicated that a site-specific rule is the appropriate course, and Ameren believes it is prudent for it to close Ash Pond D as expeditiously as possible. Ameren is prepared to expeditiously implement the proposed rule once it becomes effective.

6. Ameren is mindful of the Board's heavy docket and believes it has addressed most, if not all, of the Agency's requests and has prepared this proposal and supporting technical documents to facilitate prompt review. The Board has granted expedited – or prompt – review

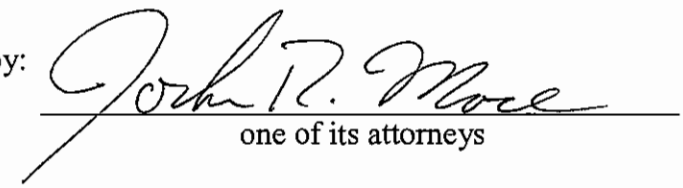
recently in several instances, including in R08-19, and set the City of Galva's proposal for site-specific rulemaking for First Notice without first considering the merits of the proposal in R09-11. Ameren requests that the Board grant it the same consideration.

7. Ameren will continue to suffer material hardship so long as the parameters under which it may close Ash Pond D are undecided. Ameren has performed numerous studies, assessments, and analyses of the impacts of Ash Pond D and the best method for closing it. Ameren merely awaits authority to proceed from the Board so that it can take the environmentally prudent steps of formally capping and closing Ash Pond D.

WHEREFORE, for the reasons set forth above, Ameren respectfully requests that the Board accept this proposed rulemaking and set it for First Notice as soon as possible and that it set hearings and move toward decision expeditiously.

Respectfully submitted,

AMEREN ENERGY GENERATING COMPANY

by: 

one of its attorneys

Dated: May 19, 2009

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Agency Analysis of Economic and Budgetary Effects of Proposed Rulemaking

Agency: Illinois Pollution Control Board

Part/Title: Site-Specific Closure of Surface Impoundments (35 Ill. Adm. Code Part 840) (new subchapter and new part within Subtitle G)

Illinois Register Citation: _____

Please attempt to provide as dollar-specific responses as possible and feel free to add any relevant explanation.

1. Anticipated effect on State expenditures and revenues:

   (a) Current cost to the agency for this program/activity: $0.00

   (b) If this rulemaking will result in an increase or decrease in cost, specify the fiscal year in which this change will first occur and the dollar amount of the effect.

   There will be no increased cost to the Pollution Control Board.

   (c) Indicate the funding source, including Fund and appropriate lines, for this program/activity.

   Unknown.

   (d) If an increase or decrease in costs of another State agency is anticipated, specify the fiscal year in which this change will first occur and the estimated dollar amount of the effect.

   There is no current cost to the Illinois Environmental Protection Agency for this program. There may be some slight increase in cost to the Illinois EPA in terms of the time necessary for staff to review various documents that the rule requires to be submitted on an infrequent basis. That increased cost could first be incurred in FY2010.

   (e) Will this rulemaking have any effect on State revenues or expenditures not already indicated above?

   No.

2. Economic effect on persons affected by the rulemaking:

(a) Indicate the economic effect and specify the persons affected:

Positive	Negative	X	No Effect
_____	_____		_____

Persons affected:

The owner or operator of the Hutsonville Power Station and Ash Pond D, currently Ameren Energy Generating Company.

Dollar amount per person: Undetermined, but preliminary budgetary estimates are $52,000/year for sampling and monitoring costs and periodic maintenance of the cover; *c.a.* $4.7 million capital cost; firm costs will be established once the rule is adopted and construction and engineering bid packages issued.

Total statewide cost: same as above

(b) If an economic effect is predicted, please briefly describe how the effect will occur.

The economic effect will occur in the engineering and implementation of the construction activities required by the rule and then operation of the closure and post-closure plans and care specified in the rule.

(c) Will the rulemaking have an indirect effect that may result in increased administrative costs? Will there by any change in requirements such as filing, documentation, reporting or completion of forms?

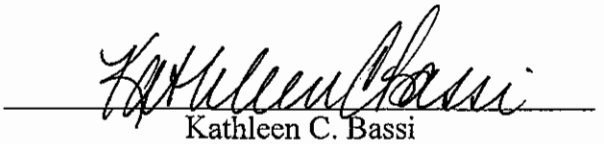
Yes. The rule requires that certain records be developed, maintained, and submitted to Illinois EPA. However, the administrative costs are expected to be nominal.

CERTIFICATE OF SERVICE

I, the undersigned, certify that on this 19th day of May, 2009, I have served electronically the attached **the APPEARANCES OF RENEE CIPRIANO, KATHLEEN C. BASSI, AND JOSHUA R. MORE on behalf of AMEREN ENERGY GENERATING COMPANY; AMEREN'S PROPOSAL FOR SITE-SPECIVID REGULATION OF THE CLOSURE OF ASH POND D AT THE HUTSONVILLE POWER STATION; STATEMENT OF REASONS (with the proposed regulatory language attached); TECHNICAL SUPPORT DOCUMENT, MOTION TO WAIVE SIGNATURE REQUIREMENT; MOTION FOR EXPEDITED REVIEW; and AGENCY ANALYSIS OF ECONOMIC AND BUDGETARY EFFECTS OF PROPOSED RULEMAKING** upon the following persons:

John T. Therriault, Assistant Clerk
Illinois Pollution Control Board
James R. Thompson Center
Suite 11-500
100 West Randolph
Chicago, Illinois 60601

and by first class mail, postage affixed upon persons included on the **ATTACHED SERVICE LIST**.



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