BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

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

NOTICE OF FILING

PLEASE TAKE NOTICE that I have filed today with the Illinois Pollution Control Board Illinois EPA's APPEARANCE; STATEMENT OF REASONS and ATTACHMENTS; PROPOSED NEW 35 ILL. ADM. CODE PARTS 841; and MOTION FOR ACCEPTANCE, a copy of which is herewith served upon you.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

By: /s/Joanne M. Olson
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APPEARANCE

The undersigned hereby enters her appearance as an attorney on behalf of the Illinois Environmental Protection Agency.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

By: /s/Joanne M. Olson
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STATEMENT OF REASONS

NOW COMES the Illinois Environmental Protection Agency ("Illinois EPA" or "Agency"), by and through its counsel, and hereby submits this Statement of Reasons to the Illinois Pollution Control Board ("Board") pursuant to Sections 13, 22, 27 and 28 of the Environmental Protection Act ("Act") (415 ILCS 5/13, 22, 27 and 28) and 35 Ill. Adm. Code 102.202 in support of the attached proposed regulations.

I. INTRODUCTION

The Illinois EPA has developed a rule of general applicability for coal combustion waste ("CCW") surface impoundments at power generating facilities. This proposed rule sets forth a process to monitor CCW surface impoundments and groundwater, as well as a process for preventive response, corrective action and closure. The proposed rule allows each owner or operator to develop a site-specific plan for groundwater monitoring, preventive response, corrective action and closure. The proposed rule includes provisions for Agency review of plans and appeals of Agency decisions to the Board.

II. BACKGROUND

Illinois has 23 power plants which have used coal as a fuel source and may be impacted by this rule. Seventeen of these plants are currently burning coal. Two of these plants have been converted to use natural gas as a fuel source and four of these plants are no longer generating

electricity. When coal is burned at power plants CCW is formed. CCW consists of fly ash, bottom ash, boiler slag, flue gas or fluid bed boiler desulfurization by-products. Fly ash is removed from exhaust gases, and is very fine, powdery, and made mostly of silica. Bottom ash is collected at the bottom of the furnaces, and is coarse, fine gravel sized, and angular. Boiler slag is molten bottom ash quenched with water. Flue gas desulfurization material is a by-product of removing sulfur dioxide from the air emissions of a coal fired power plant. It can be either wet sludge or dry powder. Disposal of CCW can be either a wet or dry system. Wet CCW is generally sluiced by pipe to an on-site surface impoundment. Dry CCW can be disposed in a landfill.

As noted above, in wet CCW handling systems, a piping system transports CCW to the impound system. The impound system can be composed of one or more surface impoundments. Typically, a CCW surface impoundment will have a primary cell where the majority of the solid particles settle out of the waste water. In addition to the primary cell, an impound system may have one or two secondary cells, often referred to as polishing ponds for the settlement of very fine suspended solids. In some instances the CCW surface impoundments have a constructed liner which allows the owner or operator to utilize heavy equipment to remove ash from the surface impoundment and dispose it off-site.

Historically, CCW may have been discharged to low lying areas or borrow pits at some locations. A borrow pit is an excavation where earth materials have been removed for site development. Borrow pits are usually incised, and the CCW and liquid is not contained by a dam, but contained in a depression or hole in the ground where earth materials have been removed. To increase storage capacity, owners or operators would sometimes build a CCW surface impoundment by constructing a diked enclosure. These structures are considered dams

and are required to comply with Illinois' dam safety regulations. The size of the diked enclosure units ranges from less than an acre to over 300 acres.

The Agency is aware of 89 CCW surface impoundments at power generating facilities. Some of surface impoundments are lined with impermeable materials, while others are not.

The chemical make-up of CCW depends on the type of coal used, as well as the combustion technology and pollution control technology used at a facility. CCW can contain antimony, arsenic, barium, boron, beryllium, cadmium, chromium, chloride, iron, lead, mercury, manganese, nickel, selenium, silver, sulfate, and thallium. The presence of these contaminants threatens groundwater as these contaminants are soluble and mobile. When the CCW surface impoundments are not lined with impermeable material, these contaminants may leach into the groundwater, affecting the potential use of the groundwater. While some of these contaminants affect the safety of drinking water, others affect taste and odor, and other potential uses such as irrigation. See Attachment A, Technical Support Document ("TSD") for further discussion.

Illinois Groundwater Protection Act

The Illinois Groundwater Protection Act (IGPA), Public Act 85-863, was enacted on September 24, 1987. 1987 Ill. Laws 3624. Sections 1 – 9 of Public Act 85-863 are now codified as the Illinois Groundwater Protection Act, 415 ILCS 55/1 *et seq.* In the IGPA, the General Assembly found that it is the State of Illinois' policy to restore, protect and enhance the groundwaters of the State. 514 ILCS 55/2(b).

> Therefore, it is the policy of the State of Illinois to restore, protect, and enhance the groundwaters of the State, as a natural and public resource. The State recognizes the essential and pervasive role of groundwater in the social and economic well-being of the people of Illinois, and its vital importance to the general health, safety, and welfare. It is further recognized as consistent with this policy that the groundwater resources of the State be utilized for beneficial and legitimate purposes; that waste and degradation of the resources be prevented; and that the underground water resource be managed to allow for maximum benefit of the people of the State of Illinois.

514 ILCS 55/2(b). The IGPA required the Agency to propose and the Board to adopt regulations establishing comprehensive water quality standards specifically for the protection of groundwater. 415 ILCS 55/8(a). The IGPA directed the Board to consider how groundwater differs from surface water, a classification system for groundwater based on its utility as a resource or susceptibility to contamination, and nondegradation provisions including preventive response activities and notification limitations when promulgating groundwater quality standards. 415 ILCS 55/8(b). The Board adopted groundwater quality standards in Part 620. 35 Ill. Adm. Code 620; See R89-14. The Agency has relied on the classification system, nondegradation provisions, groundwater quality standards, and groundwater management zone provisions contained in Part 620 in drafting these proposed rules.

The Public Act 85-863 also added new sections to the Illinois Environmental Protection Act, 415 ILCS 5/ 14.1 through 14.5, 17.1 through 17.4. 1987 Ill. Laws 3636. These sections set forth criteria for establishing setback zones for potable wells, establishing boundaries for regulated recharge areas, a minimal hazard certification program, groundwater protection needs assessment program, and groundwater protection planning program. In addition, the Agency was required to propose groundwater rules to the Board prescribing standards and requirements for certain activities within a setback zone. 415 ILCS5/14.4. The Illinois EPA proposed and the Board adopted these regulations in Parts 615 and 616, Title 35 of the Illinois Administrative Code. The Board's rules in Part 615, Subpart F and Part 616, Subpart F, contain rules for groundwater monitoring, operating and closure of surface impoundments within setback zones. The Agency consulted these rules in drafting this regulatory proposal.

Ash Impoundment Strategy

On December 22, 2008, approximately 3.1 million cubic feet of fly ash and water were released to the Emory River and nearby land as a result of an ash pond failure at a Tennessee Valley Authority facility in Kingston Tennessee. In response, the Illinois EPA developed an aggressive strategy to assess CCW surface impoundments at coal fired power plants in Illinois. Under the ash impoundment strategy, the Illinois EPA identified facilities with CCW surface impoundments, requested groundwater monitoring well data, requested a potable water system surveys, requested hydrogeologic site assessments, required the installation of groundwater monitoring and conferred with the Department of Natural Resources on dam safety. See Attachment B, Letters to Power Generating Facilities. The information gathered as a result of the Illinois EPA's ash impoundment strategy shows that 14 facilities have violations of the numerical groundwater quality standards on-site. Corrective actions, including groundwater management zones, compliance commitment agreements, and consent orders, have been initiated at 11 of these facilities. See Attachment C, Coal Combustion Management in Illinois, September 2010; Attachment D, Illinois EPA Ash Impoundment Strategy Progress Report, October 2010.

Site Specific Rulemaking for Closure of CCW Surface Impoundments

Before the ash pond failure in Kingston Tennessee, and before the Illinois EPA initiated its ash impoundment strategy, Ameren Energy Generating Company ("Ameren") sought to close Ash Pond D, an unlined surface impoundment at its Hutsonville Power Station. The Illinois EPA took the position that the CCW surface impoundment must be closed according to the landfill regulations in Parts 811-815. In response, Ameren sought an adjusted standard from the Board's landfill closure regulations. See AS 09-01. The Board dismissed the case, concluding that a site-specific rulemaking addressing the closure of Ash Pond D is the appropriate source of

regulatory relief and that such regulations should be included in the Board's Subtitle G solid waste regulations. The Board further stated that if the Agency or any other party developed a rule of general applicability, the Board envisioned that it would consider such a proposal as an addition to the Board's Subtitle G waste disposal regulations.

Shortly after the Board dismissed Ameren's petition for an adjusted standard, Ameren filed its site-specific rulemaking to close Ash Pond D. See R09-21 ("Hutsonville Rule"). Thereafter, Agency and Ameren filed a joint proposal. The Board held hearings, and adopted a final rule on January 20, 2011. The Hutsonville Rule added a new Part 840 to Title 35 of the Administrative Code. It requires a hydrogeologic site investigation, a groundwater monitoring system, groundwater monitoring program, groundwater collection trench and discharge system, final slope and final cover system, and post-closure maintenance. The Hutsonville Rule also requires Ameren to prepare a closure plan and post-closure plan, and obtain Agency approval of the plans.

On April 9, 2013, Ameren Energy Resources ("AER"), on behalf of Ameren Energy Resources Generating, AmerenEnergy Generating Company, and Electric Energy, Inc. filed a site-specific rulemaking for the closure of 16 ash ponds at 8 different facilities. See R13-19, Statement of Reasons, p. 2 (April 9, 2013). The following power plants would be subject to the proposed rule: Coffeen Power Station, Duck Creek Power Station, E.D. Edwards Power Station, Grand Tower Power Station, Hutsonville Power Station, Joppa Power Station, Meredosia Power station and Newton Power station. The proposed rule was largely modeled on the Hutsonville Rule. The Board accepted the rulemaking proposal on April 18, 2013.

The Illinois EPA, after reviewing the scope of the AER's proposed rulemaking, began drafting a rule of general applicability that would apply, if adopted, to all of AER's facilities, as

well as all other coal fired power plants with CCW surface impoundments in Illinios. The Agency's proposed rule of general applicability is modeled after the Hutsonville Rule, AER's proposal and Parts 615, 616 and 620 of the Board's rules. As a result of the Illinois EPA's development of a general rule, on July 1, 2013, AER filed a motion to stay its site-specific rulemaking in R13-19. The Board granted AER's motion on July 25, 2013.

Federal Regulations

The United States Environmental Protection Agency ("USEPA") has proposed rules to govern coal combustion residuals from electric utilities. The rule was proposed on June 21, 2010. 75 Fed. Reg. 35128-35264, See Attachment E, Coal Combustion Residual Proposed Rule. USEPA's proposal contains two co-proposals. The first co-proposal would regulate coal combustion residual as a special waste under Subtitle C of the Resource Conservation and Recovery Act ("RCRA"). The second co-proposal would regulate coal combustion residual as a nonhazardous waste under Subtitle D of RCRA. The federal rule has not been finalized, and USEPA has not indicated when it expects to finalize the rule.

IV. REGULATORY PROPOSAL: PURPOSE AND EFFECT

This proposed rule contains a program for groundwater monitoring and the remediation of contaminated groundwater resulting from leaking CCW surface impoundments. Groundwater has an essential and pervasive role in the social and economic well-being of Illinois, and is important to the vitality, health, safety, and welfare of its citizens. This rule has been developed based on the goals above and the principle that groundwater resources should be utilized for beneficial and legitimate purposes. See 415 ILCS 55/1 *et seq*. Its purpose is to prevent waste and degradation of the groundwater. The proposed rule establishes a framework to manage the underground water resource to allow for maximum benefit of the State.

With its proposal, the Illinois EPA intends to fill a regulatory gap in the Board's rules governing CCW surface impoundments at power generating facilities. Many of these impoundments are permitted through an NPDES permit or state operating permit issued by the Agency pursuant to Subtitle C. The Board's Subtitle C regulations, however, do not provide a method for closure or corrective action at these facilities. The Board's rules governing waste disposal in Subtitle G do not apply because surface impoundments are excluded from the definition of landfill. 35 Ill. Adm. Code 720.110; 35 Ill. Adm. Code 810.103. Therefore, the closure provisions for landfills are inapplicable to surface impoundments. As a result, owners or operators of CCW must develop and propose a site-specific rulemaking to complete closure of each CCW surface impoundment.

To close this regulatory gap and avoid numerous site-specific rulemakings, the Illinois EPA now proposes general rules governing monitoring, preventive response, corrective action and closure of CCW surface impoundments. When groundwater quality standards are exceeded, the owner or operator may elect to perform corrective action or to close the CCW surface impoundment. The Agency includes a corrective action process in these rules because closure may not be required in all instances. In addition, monitoring provisions are proposed to be implemented before the facility begins operation or one year after the effective date of these proposed rules. The monitoring network installed before a CCW surface impoundment begins operation will be utilized through the post-closure period. Moreover, the proposed rule acknowledges many owners or operators have taken steps to protect the groundwater (e.g., hydrogeologic characterization, preventive response, and GMZs) by allowing previous work to be used to satisfy the requirements of the proposed rule.

The Illinois EPA used a significant amount of the structure from the adopted Hustonville Rule and concepts from the Board's adopted technology control regulations at 35 Ill. Adm. Code 615 and 616 to draft this proposed regulation. These proposed regulations have been tightly integrated with the Board's groundwater standards in 35 Ill. Adm. Code 620, including the groundwater classification system that differentiates resource groundwaters from others, preventive response processes in 35 Ill. Adm. Code 620.310(c), and the corrective action process in 35 Ill. Adm. Code 620.250.

The proposed rules do not prescribe how all CCW surface impoundments must be closed, or how each site with groundwater contamination must be remediated. Instead, the rule provides a process. If the groundwater monitoring shows statistically significant increasing constituent concentration, the owner or operator may be required to carry out a preventive response. If a site has groundwater contamination that is attributable to a release from a CCW surface impoundment, the owner or operator has a choice between corrective action or closure. The preventive response, corrective action plan or closure plan is site-specific. The proposed rule also provides a framework for closing surface impoundments that have not caused groundwater contamination.

IV. REGULATORY PROPOSAL: LANGUAGE

The following is a section-by-section summary of the Illinois EPA's proposal.

Subpart A: General

Proposed Subpart A sets forth who is subject to these rules as well as generally applicable provisions.

Section 841.100: Purpose

This Section states the purpose of Part 841 is to establish criteria, requirements and standards that govern surface impoundments containing CCW or leachate from CCW.

Section 841.105 Applicability

Under this Section, the universe of CCW surface impoundments subject to this Part is delineated. These proposed rules would apply to all CCW surface impoundments currently in operation or currently with groundwater quality standards exceedences, unless the surface impoundment is specifically exempted. The exemptions include facilities operated as a solid waste landfill or an exempt landfill, facilities subject to site-specific rules governing closure in 35 Ill. Adm. Code 840, facilities used to temporarily store de minimis amounts of CCW, and facilities used to collect stormwater that does not contain CCW leachate.

Section 841.110 Definitions

In addition to definitions contained in the Act, the Illinois EPA proposes adding definitions of compliance point, leachate, off-site, on-site, operator, owner, practical quantitation limit, professional engineer, professional geologist, statistically significant, storm, surface impoundment, unit, and woody species. The definition of unit is limited to any surface impoundment containing CCW or leachate from CCW. Throughout these rules, the Illinois EPA has used the term "unit" to refer surface impoundments containing CCW. For further discussion, See Attachment A, TSD, pp. 18-20.

Section 841.115 Abbreviations and Acronyms

This section contains abbreviations and acronyms used throughout the proposed rule.

Section 841.120 Incorporations by Reference

This Section sets forth the material to be incorporated by reference in the proposed rule, in accordance with 1 Ill. Adm. Code 100.385.

Section 841.125 Groundwater Quality Standards

The Board has adopted groundwater quality standards in 35 Ill. Adm. Code 620. In this Section, the Illinois EPA proposes that CCW surface impoundments subject to this Part must follow the existing groundwater quality standards in Part 620. The groundwater quality standards in Part 620 include the numerical limits in 35 Ill. Adm. Code 620.Subpart D, and the nondegradation provisions in 35 Ill. Adm. Code 620.Subpart C. Under this proposed Section, compliance is demonstrated at the compliance point or points, by using the appropriate statistical method.

Section 841.130 Compliance Period

This Section states when the owner or operator of a CCW surface impoundment must implement these rules. The compliance period begins one year after the effect date of these rules, or when the surface impoundment first receives CCW, whichever is later. The proposed regulations provide that the hydrogeologic site characterization, groundwater monitoring system and plan must be completed by the time the compliance period begins. In addition, the background values of groundwater must also be established before the compliance period begins. The compliance period ends when the post-closure care period ends.

Section 841.135 Recordkeeping

In order to show compliance with the proposed rules, records must be kept. The Agency proposes that the owner or operator keep the following records on-site: the groundwater monitoring plan, all monitoring data for 10 years, the corrective action plan, closure plan and

post-closure plan while the facility is undergoing corrective action or closure, the corrective action report, closure report and post-closure reports for 10 years, and any construction quality assurance reports for two years.

Section 841.140 Submission of Plans, Reports, and Notifications

This Section sets forth how to submit plans, reports, modifications and notifications to the Agency. It also lists the types of documents that must be signed by a professional engineer or professional geologist.

Section 841.145 Previous Investigations, Plans and Programs

The Illinois EPA recognizes that many facilities have existing groundwater monitoring systems and plans, and may have previously conducted hydrogeologic site investigations or characterizations. Under this Section, the owner or operator can use previous work, with the approval of the Agency, and is not expected to redevelop groundwater monitoring networks or repeat site investigation to comply with this Part. In addition, the existence of a groundwater management zone, preventive response plan, compliance commitment agreement, or court or Board order may be used to satisfy the requirements of this Part.

Section 841.150 Modification of Existing Permits

Under this proposed Section, an owner and operator is obligated to update all permits impacted by preventive response, corrective action or closure. Submission of plans under this Part is not sufficient to modify existing permits.

Section 841.155 Construction Quality Assurance Program

This Section requires the owner or operator to have a construction quality assurance program when building components of a preventive response plan, corrective action plan, or closure plan. Subsection (b) sets forth the program requirements, which includes a construction

quality officer, recordkeeping, supervision of construction, and necessary certifications. This Section is similar to 35 Ill. Adm. Code 840.146 and 811.Subpart E.

Section 841.160 Photographs

The purpose of this Section is to set forth minimum requirements that must be met when using photographs to show the progress or acceptability of work performed under this Part. The photographs must include documentation of the date, time and location of the photograph, and the name and signature of the photographer. This Section is similar to 35 Ill. Adm. Code 811.505(c).

Section 841.165 Public Notice

Under Illinois EPA's proposal, whenever the Agency receives proposed corrective action or closure plans, the Agency must place these plans on its website for a period of 30 days. Members from the public can comment on the proposed plans. The Agency is required to take these comments into consideration in making its final decision, but is not required to respond to any comment.

Subpart B: Monitoring

Proposed Subpart B contains monitoring provisions which must be followed until the end of the post-closure period.

Section 841.200 Hydrogeologic Site Characterization

This proposed Section requires all owners or operators to conduct a site investigation to determine potential contamination migration pathways and other hydrogeologic information of the site. This Section also provides examples of how hydrogeologic site investigations are used. For further discussion, See Attachment A, TSD, p. 23.

Section 841.205 Groundwater Monitoring System

Under Illinois EPA's proposal, one component of the groundwater monitoring plan is the groundwater monitoring system. This Section contains standards for monitoring well design and construction. The groundwater monitoring system can be designed for a single CCW surface impoundment or multiple CCW surface impoundments. This Section specifies how to determine how many wells are necessary and where these wells must be placed. For further discussion, See Attachment A, TSD, pp. 24-25.

Section 841.210 Groundwater Monitoring Plan

In this Section, Illinois EPA proposes that an owner or operator develop a groundwater monitoring plan and evaluate the groundwater beneath and around the unit to determine compliance with the groundwater quality standards. In the event there is off-site contamination, this Section further requires the owner or operator to determine the full extent of off-site impact, either through modeling or sampling. Subsection (b) contains the necessary components of the groundwater monitoring plan, and subsections (c) through (e) specifies how the owner or operator should analyze samples. For further discussion, See Attachment A, TSD, pp. 25-26.

Section 841.215 Chemical Constituents and Other Data to be Monitored

The purpose of this Section is to specify which parameters must be monitored in the groundwater monitoring plan. In addition to chemical constituents, the Illinois EPA proposes field parameters be monitored; these field parameters do not need to be analyzed by a certified laboratory. For further discussion, See Attachment A, TSD, pp. 26-27.

Section 841.220 Determining Background

Under this Section, an owner or operator must determine background values of the chemical constituents monitored under this Part. Background can be established by various

statistical methods, and the number and types of samples necessary to determine background will depend on the chosen statistical method. In addition, the intrawell statistical method can be used, with Agency approval, in cases where other activities at the site could be impacting the groundwater. Background must be recalculated every five years. For further discussion, See Attachment A, TSD, pp. 27-28.

Section 841.225 Statistical Methods

This Section outlines the statistical methods that may be used to establish background and to evaluate compliance with the groundwater quality standards. For further discussion, See Attachment A, TSD, p. 28-32.

Section 841.230 Sampling Frequency

All groundwater monitoring plans must have as sampling frequency that complies with this Section. As a baseline, the Illinois EPA proposes a semi-annual frequency if such frequency is consistent with the chosen statistical method. During the compliance period, owners or operators must sample for all chemical constituents listed in proposed Section 841.215 at least semi-annually. The Agency proposes requiring increased sampling frequency when the CCW surface impoundment is the cause of groundwater quality standards violation, and when the chemical constituents in the down-gradient wells differ to a statistically significant degree from the up-gradient wells. For further discussion, See Attachment A, TSD, pp. 32-33

Section 841.235 Annual Statistical Analysis

This Section provides that the owner or operator must perform an annual statistical analysis for each monitoring well located down-gradient of the CCW surface impoundment. If the annual analysis shows a statistically significant increase, the owner or operator must conduct further investigation and evaluation. If the investigation and evaluation shows an impairment or

exclusion of an existing or potential use of Class I or Class III groundwater, the owner or operator must develop a preventive response plan. For further discussion, See TSD, pp. 33-36.

Section 841.240 Inspection

This Section requires the owner or operator to perform weekly inspections, and keep records of each inspection. In the event a weekly inspection reveals a sudden and unexpected drop in the liquid level, the owner or operator is required to notify the Agency. For further discussion, See Attachment A, TSD, pp. 36-37.

Subpart C: Corrective Action

Proposed Subpart C contains provisions governing corrective action.

Section 841.300 Confirmation Sampling

This Section provides the process for completing confirmation sampling, and three alternatives for action if the samples results are confirmed. If groundwater monitoring results show an exceedence of the groundwater quality standard, the owner or operator has 30 days to resample and analyze a second sample. Upon receipt of a sample confirming the groundwater standards violation, the owner or operator can either (1) close the unit, (2) perform corrective action, or (3) show another source is the cause of the exceedence. For further discussion, See Attachment A, TSD, p. 37.

Section 841.305 Alternative Cause Demonstration

This Section provides that a groundwater quality violation is not attributable to the CCW surface impoundment when there is an error in sampling, the exceedence is due to natural causes or to a source other than the unit. The timelines for completing the alternative cause demonstration are found in subsections (b) and (c). The owner or operator is provided with an

opportunity to appeal the Agency's determination on the alternative cause demonstration to the Board. For further discussion, See Attachment A, TSD, p.38.

Section 841.310 Corrective Action Plan

After a groundwater quality standard exceedence is confirmed, and the owner or operator elects to perform corrective action instead of closing the CCW surface impoundment or showing an alternative cause is responsible for the exceedence, the owner or operator must submit a corrective action plan. The requirements of a corrective action plan are set forth in subsection (e). In addition, the owner or operator must provide potable water if a release from the CCW surface impoundment is affecting a potable water supply. The timeframe for completing the corrective action shall be proposed by the owner or operator and approved by the Agency as a part of the corrective action plan. For further discussion, See Attachment A, TSD, pp 39-40.

Section 841.315 Groundwater Collection System

This Section requires plans for a groundwater collection system to be included in the corrective action plan when such systems are used. This Section also provides criteria for discontinuing a groundwater collection system once compliance with the groundwater quality standards has been achieved. For further discussion, See Attachment A, TSD, pp. 39-40.

Section 841.320 Groundwater Discharge System

When a groundwater collection system is used, this Section requires that plans for a groundwater discharge system be included in the corrective action plan, and an NPDES permit obtained if the discharge is to waters of the United States. For further discussion, See Attachment A, TSD, pp. 39-40.

Section 841.325 Corrective Action Report and Certification

After completion of the corrective action, the owner or operator must submit for Agency approval a corrective action report, supporting documentation and a certification that the release from the CCW surface impoundment has been mitigated. For further discussion, See Attachment A, TSD, pp. 39-40.

Subpart D: Closure

Proposed Subpart D contains provisions governing closure.

Section 841.400 Surface Impoundment Closure

This Section provides a narrative standard for closing all CCW surface impoundments in subsection (a). Subsection (b) provides the standards for closing a CCW surface impoundment by complete removal. Subsection (c) provides the standard for closing CCW surface impoundment by means other than complete removal. For further discussion, See Attachment A, TSD, p. 40.

Section 841.405 Closure Prioritization

This Section provides a timeline for closing CCW surface impoundments with groundwater quality standard exceedences, which owners or operators with multiple CCW surface impoundments can use in prioritizing the closure order. The Agency proposes four categories: (1) units impacting existing potable water supplies, (2) inactive units, (3) active units and (4) units over Class IV groundwater. Category 1, if applicable, will always govern the closure time frames. If category 1 is not applicable, and category 4 is applicable, category 4 will govern the closure timeframe. Categories 2 and 3 apply when categories 1 and 4 are inapplicable. The amount of time to close a CCW surface impoundment increases from two years in category 1 to six years in category 4. If the CCW surface impoundment is not causing a

groundwater quality standard exceedence, the timeframe for closure is the time agreed to by the owner or operator and the Agency. For further discussion, See Attachment A, TSD, pp. 40-42

Section 841.410 Closure Plan

The purpose of this Section is to specify what must be included in a closure plan. In addition, under subsection (b) the Agency may request additional information. For further discussion, See Attachment A, TSD, pp. 42-43

Section 841.415 Final Slope and Stabilization

This Section provides the technical requirements for the final slope of the CCW surface impoundment when closure is not by complete removal. The Agency consulted 35 Ill. Adm. Code 840.124 and Ill. Adm. Code 811.205 when drafting this proposed language. For further discussion, See Attachment A, TSD, p. 43.

Section 841.420 Final Cover System

This Section provides the technical requirements for the final cover system when closure is not by complete removal. The Agency consulted 35 Ill. Adm. Code 840.126 and Ill. Adm. Code 811.204 when drafting this proposed language. For further discussion, See Attachment A, TSD, p. 43.

Section 841.425 Closure Report and Certification

After completion of all closure activities, the owner or operator must submit for Agency approval a closure report, supporting documentation and a certification that the CCW surface impoundment has been closed in accordance with the approved plan. For further discussion, See Attachment A, TSD, p.43.

Section 841.430 Post-Closure Maintenance of Cover System

This Section contains the cover care requirements after the CCW surface impoundment is closed. The Illinois EPA proposes requiring quarterly inspections, repair of erosion, holes, depressions, tears, rips, punctures or other damage to the cover system. This Section also provides that use of the property must not disturb the integrity of the cover, and any disturbance of the cover must be approved by the Agency. The Agency consulted 35 Ill. Adm. Code 840.136 And Ill. Adm. Code 811.111 when drafting this proposed language. For further discussion, See Attachment A, TSD, pp. 43-45.

Section 841.435 Post-Closure Care Plan

Under the Illinois EPA's proposal, the post-closure care plan must be submitted at the same time as the closure plan. Subsection (c) contains the minimum elements all post-closure care plans must have. These elements include proposed post-closure care activities, description of the operation and maintenance of groundwater collection systems, if used, and statement of planned uses of the property. For further discussion, See Attachment A, TSD, pp. 43-45.

Section 841.440 Post-Closure Report and Certification

After completion of all post-closure activities, the owner or operator must submit for Agency approval a post-closure report, supporting documentation and a certification that the post-closure care of the CCW surface impoundment was in accordance with the approved plan. For further discussion, See Attachment A, TSD, pp. 43-45.

Section 841.445 Closure and Post-Closure Annual Reporting

Under this proposed Section, the owner or operator must complete an annual report, in addition to the annual statistical analysis, during the closure and post-closure care period. This report would include the annual statistical analysis, summary of completed activities, and actions

taken to mitigate statistically significant increasing constituent concentrations, if any. For further discussion, See Attachment A, TSD, p. 45

Section 841.450 Resource Conservation and Recovery Act

This proposed Section provides that any rules governing CCW adopted under RCRA will apply if more stringent or inconsistent with the rules contained in this Part.

Subpart E: Agency Review Procedures

Proposed Subpart E sets forth how plans, reports, and certifications will be reviewed by the Agency, and when an owner or operator can appeal the Agency's decision to the Board.

Section 841.500 Plan Review, Approval, and Modification.

The Illinois EPA proposes, in Section 841.500, a review procedure for all plans submitted under this Part. These plans include a groundwater monitoring plan, preventive response plan, corrective action plan, closure plan and post-closure care plan. The groundwater monitoring system and hydrologic site characterization are included in the groundwater monitoring plan, and therefore, are reviewed under the provisions of this subpart as well. The Agency proposes a 90 day review period to either approve, approve with conditions or disapprove a plan. If the Agency disapproves a plan, a written notification must include an explanation of why the plan was disapproved. Subsection (c) contains criteria for Agency review of the plans. The owner or operator can appeal the Agency's final decision to the Board within 35 days of the Agency's decision.

Section 841.505 Plan Review, Approval, and Modification.

The Illinois EPA proposes a review process for reports and certifications. This process is the same as for plans under proposed Section 841.500. Subsections (c) contains standards for reviewing corrective action reports and certifications. Subsection (d) contains standards for

reviewing closure reports and certifications. Subsection (e) contains standards for reviewing post-closure care reports and certification.

V. TECHNICAL FEASIBILITY AND ECONOMIC REASONABLENESS

Because the proposed regulation does not require installation of any particular technology for preventive response, corrective action and closure, it is difficult to quantify the technical feasibility and economic costs. The proposed rule requires groundwater monitoring and provides a framework to complete corrective action and closure. The Illinois EPA's proposal does not create new obligations for power generating facilities because a facility that causes, threatens or allows groundwater pollution is currently subject to enforcement actions under the Act, including remedial actions and fines. The Agency has previously asked many of these facilities to install groundwater monitoring wells. See Attachment B. Therefore, the Illinois EPA does not believe the proposed rules will have a negative economic impact. The economic impact will be positive, as the proposed rule is designed to prevent groundwater contamination by catching statistically significant increases of groundwater contaminants before the groundwater quality standards are violated. Preventing groundwater contamination preserves the State's natural resources for current and future use. As recognized in the IGPA, groundwater has an essential and pervasive role in the social and economic well-being of the people of Illinois.

The proposed rule ensures that CCW surface impoundments are closed in a manner that minimizes impacts to the environment including groundwater, surface water and air medias. A surface impoundment may be closed with removal of the CCW or with CCW left in place. In some cases, recovering useable materials from the CCW surface impoundments may be technically feasible and economically reasonable, but reuse of CCW materials is highly dependent on local market conditions. If the CCW is not removed, and instead left in place, the

CCW surface impoundment must be stabilized in order to construct a final cover system. The final cover system must be designed to minimize impacts to groundwater. Where necessary, groundwater collection systems will be utilized to intercept contaminants.

The size of existing CCW surface impoundments range from less than an acre to over 300 acres. The technical feasibility of corrective action or closure of these surface impoundments depends on their size. In some instances the CCW surface impoundments are lined and the materials are removed and disposed of off-site. For larger CCW surface impoundments, it is appropriate to minimize the movement of contaminants utilizing containment (Hauser, 2009 and Russell, 2012). This can be done by constructing a low permeability cover on the CCW surface impoundment. This cover may be constructed using low permeability clay soils or a synthetic cover material. The cover system would be constructed using standard construction techniques utilized for landfills. When using this approach it is important that site grading is completed to maximize runoff. In addition, post closure care of the cover material will maintain the integrity of the cover.

In some cases corrective action plans will require the migration of contaminated groundwater to be intercepted or controlled using pumping wells or collection trenches (Russell, 2012). These devices remove contaminated groundwater from the aquifer. The application of these collection devices is based on site specific conditions and is standard practice for remediation involving the interception of contaminated groundwater. Collection trenches are constructed using standard earth moving equipment, and wells may be constructed using standard equipment used to drill drinking water wells.

Water collected in groundwater collection systems may contain inorganic contaminants. Treatment for inorganic contaminants would require reverse osmosis. TDS, sulfate and boron

are examples of inorganic contaminants which require reverse osmosis. This treatment would be technically unreasonable for the owners or operators (Nyer, Evan K., 1992). See Attachment A, TSD, p. 1. The corrective action or closure process under the proposed rule takes into account the difficulties associated with treatment of the groundwater. The proposed rule affords the potentially affected facilities the ability to avail themselves of current and future technologies that achieve the requirements of the rule.

VI. AFFECTED FACILITIES AND OUTREACH

Power generating facilities with CCW surface impoundments may be affected by the Illinois EPA's proposed rule. These facilities include:

Name of Facility	Number of CCW Surface Impoundments
Midwest Generation	
Will County Station	4
Waukegan Station	2
Powerton	5
Joliet 29	3
Dynegy Midwest	
Baldwin Energy Cen.	7
Havana Station	4
Hennepin Station	8
Wood River Station	5
Vermilion Station	5
Ameren Energy	
Newton Station	2
Edwards Station	1

Duck Creek Station	7
Coffeen Station	5
Meredosia Station	3
Hutsonville Station	5
Venice	2
Grand Tower	1
Electric Energy Inc.	
Electric Energy Inc.	2
Kincaid Generation	
Kincaid Generation	1
City Water Light and Power	
City Water Light and Power	2
Prairie Power Inc.	
Prairie Power Inc.	1
Southern Illinois Power Co-op.	
Southern Illinois Power Co-op.	7
Prairie State Generation	
Prairie State Generation	7

Because this rulemaking was initiated in response to AER's site-specific rulemaking, the Illinois EPA initially shared an early draft of these rule with AER on May 8, 2013. After working through AER's comments, the Agency circulated a revised draft to a stakeholder workgroup. The stakeholder workgroup included representatives from Ameren, Dynegy, Midwest Generation, City Water Light and Power, Southern Illinois Power Cooperative, Prairie State Generating Company, Electric Energy, Kincaid Generation, Prairie Power, Exelon, Illinois Environmental Regulatory Group, the Office of the Attorney General, Illinois Department of

Natural Resources, Environmental Law and Policy Center, Prairie Rivers Network, Sierra Club, Environmental Integrity Project. A public outreach meeting was held at the Illinois EPA's headquarters in Springfield on June 27, 2013. During the outreach session, the environmental groups and the Attorney General's office suggested adding two requirements: (1) public notice and participation for corrective action and closure plans; and (2) financial assurance requirements for all CCW surface impoundments. The Agency accepted public comments after the outreach session, and encouraged the parties to comment on the public notice and participation, and financial assurance. In finalizing the language in this proposal, the Agency reviewed all comments received.

Regarding public participation, the industry stakeholders generally disfavored its addition. Some industry stakeholders commented the public notice and participation requirement should be limited in duration and scope to prevent disruption of the Agency's review timeframes. The environmental groups proposed a 60 day comment period with the possibility of a public information meeting. The Illinois EPA has chosen to include a public notice and participation process in its proposal. Under the proposed rules, the Illinois EPA will post corrective action and closure plans on its website and accept written public comments on the plans for a period of 30 days. The Agency will review and evaluate the written comments that are submitted within the 30 day comment period.

Regarding financial assurance, the environmental groups and the Attorney General's Office favored a financial assurance requirement. The industry stakeholders opposed such a requirement. The Illinois EPA elected not to include a financial assurance requirement in its proposal.

VII. SYNOPSIS OF TESTIMONY

The Illinois EPA anticipates presenting four witnesses during the Board's hearings on this proposal. The witnesses are Agency employees within the Division of Public Water Supplies. They are (1) Rick Cobb, Deputy Division Manager; (2) Bill Buscher, Manager of the Hydrogeology and Compliance Unit; and (3) Lynn Dunaway, Environmental Protection Specialist, and (4) Amy Zimmer, Environmental Protection Geologist III.

Rick Cobb has a Bachelor of Science in Geology from Illinois State University, and is an Illinois licensed professional geologist. He has worked in the Division of Public Water Supplies at Illinois EPA for 28 years, has been the manager of the Groundwater Section since 1991, and has been the Deputy Division Manager since 2002. During this time he has worked on the development, implementation and enforcement of groundwater laws and regulations in Illinois. Illinois EPA anticipates that Mr. Cobb will testify regarding policy considerations underlying the proposed rules. Mr. Cobb is also expected to testify and answer questions about the general provisions in Subpart A of the proposed rule as well as the Agency review process in Subpart E.

Bill Buscher graduated from the University of Missouri-Rolla with a Bachelor of Science in Geological Engineering and is a licensed professional geologist. He has worked in Bureau of Water for over 25 years. His primary responsibilities include application of the Illinois Environmental Protection Act and Illinois Pollution Control Board's rules which pertain to groundwater. Mr. Buscher will testify about the corrective action and closure process.

Lynn Dunaway graduated from the Bradley University with a Bachelor of Science, in Geology. Mr. Dunaway has been an Illinois Licensed Professional Geologist since 1998. He has worked in the Groundwater Section, Bureau of Water, for the past 25 years. In addition to implementation of programs under the Groundwater Protection Act, he deals with groundwater

standards compliance issues, including implementation of protective measures at the time of permitting and regulatory development. Mr. Dunaway is expected to testify about statistical methods to determine background and compliance, sampling frequency, the annual statistical analysis, preventive response and confirmation sampling.

Amy Zimmer has worked in the Groundwater Section of the Division of Public Water Supplies since 1998. Before joining the Agency, she graduated from Northern Illinois University with a Bachelor of Science in Geology. Ms. Zimmer's job duties include conducting geologic investigations and hydrogeologic characterization of aquifers utilized by community water supplies, developing conceptual and mathematical models of flow systems, identifying groundwater flowpaths, evaluating groundwater models and hydrogeologic data received from regulated sites and community water supplies, providing technical input for special projects requiring geologic expertise, and assisting in the preparation of routine reports concerning various aspects of the state's groundwater protection programs. Ms. Zimmer will present testimony and answer questions related to the hydrogeologic site characterization, groundwater monitoring system, groundwater monitoring program, chemical constituents to be monitored, inspections, and alternative cause demonstrations.

VIII. SUPPORTING DOCUMENTS

A. Documents Relied Upon

The Illinois Administrative Procedure Act provides that all proposed rulemakings must include:

> a descriptive title or other description of any published study or research report used in developing the rule, the identity of the person who performed such study, and a description of where the public may obtain a copy of any such study or research report. If the study was performed by an agency or by a person or entity that contracted with the agency for the performance of the study, the agency shall also make copies of the

> underlying data available to members of the public upon request if the data are not protected from disclosure under the Freedom of Information Act.

5 ILCS 100/5-40(b)(3.5). The Board's procedural rules require the same information to be included with any rulemaking proposal filed with the Board in 35 Ill. Adm. Code 102.202(e). A complete list of the published studies and other documents relied upon by the Agency in developing this proposal is provided below.

List of Documents Relied Upon
Adler, H.L. and E.B. Roessler, 1964, *Introduction to Probability and Statistics*, W.H. Freeman and Company, Third Edition, p. 123.
American Water Works Association (AWWA), 1995, *Water Treatment*, 630 pps.
AWWA, 1996, *Water Transmission and Distribution*, AWWA, 630 pps.
Fetter, C.W., 1993, *Contaminant Hydrogeology*, Macmillan Publishing, 458 pps.
Gorelick, S.M., Freeze, R.A., Donohue, D., and J.F. Keely, 1993, *Groundwater Contamination: Optimal Capture and Containment,* Lewis Publishers, 385 pps.
Hauser, V.L., 2009, *Evapotranspiration Covers for Landfills and Waste Sites,* CRC Press Taylor and Francis Group, 203 pps.
Helsel, D.R. and R.M. Hirsch. 1993. *Statistical Methods in Water Resources*. U.S. Geological Survey. Elsevier Press.
Hem, J.D. 1992. *Study and Interpretation of the Chemical Characteristics of Natural Water*. United States Geological Survey Water –Supply Paper 2254.
Illinois EPA, 2010, *Illinois Integrated Water Quality Report and Section 303(d) List - Volume II - Groundwater – 2010,* http://www.epa.state.il.us/water/tmdl/303d-list.html#2012 , 46 pp.
Natusch, D. F. S., and others, *Characterization of trace elements in fly ash*: Institute for Environmental Studies, University of Illinois; IES Research Report no. 3, 34 pps.
Nyer, E. K., 1992, *Groundwater Treatment Technology*, Van Nostrand Reinhold, 297 pps.
Russel, D.L., 2012, *Remediation Manual for Contaminated Sites,* CRC Press Taylor and Francis Group, 241 pps.
Suloway, John J. and others,1983, *Chemical and Toxicological Properties of Coal Fly Ash*, Environmental Geology Notes 105, Champaign, Il, Illinois Natural History Survey and Illinois State Geological Survey, 77 pps.
United States Environmental Protection Agency (U.S. EPA), March 2009, *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance,* EPA 530/R-09-007, 268 pps
U.S. EPA, 1999, *Health Effects from Exposure to High Levels of Sulfate in Drinking Water Study,* 25 pps.

U.S. EPA, July 1996, *Pump-and-Treat Ground-Water Remediation- A Guide for Decision Makers and Practitioners,* EPA/625/R-95/005, 74 pps.
U.S. EPA, 1986, *Quality Criteria for Water,* 477 pps
United States Geological Survey (USGS), October 1997, *Radioactive Elements in Coal and Fly Ash: Abundance, Forms, and Environmental Significance,* Factsheet FS-163-97, http://pubs.usgs.gov/fs/1997/fs163-97/FS-163-97.html

This list includes all the references provided in the Agency's TSD as well as some additional references relied on in rule development and the Statement of Reasons. The Agency did not perform any new studies, nor did the Agency contract with any outside entities to perform any studies for the development of this rulemaking proposal. Because no studies were conducted, there is no underlying data meeting the requirements of 5 ILCS 100/5-40(b)(3.5).

B. Incorporations by Reference and Attachments

This section of the Statement of Reasons provides a list of documents that are incorporated by reference in the proposed rule. Section 102.202(d) requires the Agency to submit "[c]opies of any material to be incorporated by reference within the proposed rule pursuant to section 5-75 of the IAPA [5 ILCS 100/5-75]." The Agency proposes incorporating nine documents by reference. These documents include the documents incorporated in the Hustonville Rule and one additional USEPA publication: "Statistical Methods of Groundwater Monitoring Data at RCRA Facilities—Unified Guidance." These nine incorporations by reference are listed below. Copies of each of these documents are included with this rulemaking proposal.

Documents Incorporated By Reference
"Methods for Chemical Analysis of Water and Wastes," March 1983, Doc. No. PB84-128677. EPA 600/4-79-020 (available on-line at http://nepis.epa.gov/).
"Methods for the Determination of Inorganic Substances in Environmental Samples," August 1993, Doc. No. PB94-120821 (referred to as "USEPA Environmental Inorganic Methods"). EPA 600/R-93-100 (available online at http://nepis.epa.gov/

"Methods for the Determination of Metals in Environmental Samples," June 1991, Doc. No. PB91-231498. EPA 600/4-91-010 (available on-line at http://nepis.epa.gov/).
"Methods for the Determination of Metals in Environmental Samples Supplement I," May 1994, Doc. No. PB95-125472. EPA 600/4-94-111 (available on-line at http://nepis.epa.gov).
"Methods for the Determination of Organic and Inorganic Compounds in Drinking Water: Volume I," EPA 815-R-00-014 (August 2000) (available on-line at http://nepis.epa.gov).
"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," USEPA Publication No. SW-846, as amended by Updates I, II, IIA, IIB, III, IIIA, and IIIB (Doc. No. 955-001-00000-1), (available on-line at http://www.epa.gov/epaoswer/hazwaste/test/main.htm).
"Practical Guide for Ground-Water Sampling," EPA Publication No. EPA/600/2-85/104 (September 1985), Doc. No. PB 86-137304. National Technical Information Service, 5285 Port Royal Road, Springfield VA 22161, (703) 605-6000.
2009 Unified Guidance. "Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities—Unified Guidance," March 2009, EPA 530/R-09-2007. United States Environmental Protection Agency, National Service Center for Environmental Publications, P.O. Box 42419, Cincinnati, OH 45242-0419 (accessible on-line and available by download from http://www.epa.gov/nscep/).
"Techniques of Water Resources Investigations of the United States Geological Survey, Guidelines for Collection and Field Analysis of Ground-Water Samples for Selected Unstable Constituents," Book I, Chapter D2 (1976). United States Geological Survey, 1961 Stout St., Denver CO 80294, (303) 844-4169.

C. **Attachments**

This section of the Statement of Reasons provides list of documents attached to this rulemaking proposal.

Letter	**Attachments**
A	Illinois EPA's Technical Support Document (TSD)
B	Letters to Power Generating Facilities
C	Coal Combustion Management in Illinois, September 2010;)
D	Illinois EPA Ash Impoundment Strategy Progress Report, October 2010.
E	Coal Combustion Residual Proposed Rule Federal Register 73:225 (2008), Revised

	National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitation Guidelines for Concentrated Animal Feeding Operations in Response to the Waterkeeper Decision: Final rule, pp. 70418-70486, November 20, 2008

IX. CONCLUSION

WHEREFORE, the Illinois EPA respectfully requests the Board to adopt the Illinois EPA's proposed regulation in its entirety as submitted.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

By: /s/Joanne M. Olson
Joanne M. Olson
Assistant Counsel
Division of Legal Counsel

Joanne M. Olson #6293500
Illinois Environmental Protection Agency
Division of Legal Counsel
1021 N. Grand Ave. East
P.O. Box 19276
Springfield, IL 62794-9276
(217) 782-5544

Attachment B

Letters to Power Generating Facilities

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601 - (312) 814-6026

217/782-0610

DOUGLAS P. SCOTT, DIRECTOR

April 10, 2009

Midwest Generation, LLC.
Environmental Health and Safety Department
One Financial Place
440 South LaSalle Street, Suite 3500
Chicago, Illinois 60605

Re: Ash Impoundment Groundwater Protection
Development of Groundwater Monitoring Plan
Will County Station – NPDES Permit No. IL0002208

Gentlemen:

The Illinois Environmental Protection Agency (Illinois EPA) has undertaken efforts to evaluate ash impoundments at the various power generation facilities in Illinois which have one or more ash impoundments either currently in use, or out of use. A review of available groundwater monitoring data indicates that many of these facilities have no groundwater monitoring program and therefore there is no reliable way to demonstrate that these impoundments are in compliance with 35 Ill. Adm. Code Part 620.

Based on information available to the Illinois EPA, this facility operates four lined ash ponds, but does not have a monitoring well system to demonstrate compliance with the Part 620 groundwater quality standards. Regional maps of the area indicate that Class I: Potable Resource Groundwater is likely to exist proximate to these ash ponds. Additionally, the Illinois State Geological Survey's well data base indicates potable water system wells may exist in the vicinity. Therefore, pursuant to Sections 4 and 12 of the Illinois Environmental Protection Act, the Will County Station must submit a hydrogeologic assessment plan to characterize the subsurface hydrogeology and evaluate the potential for contaminant migration from these ash ponds. This assessment must include a groundwater monitoring plan for these ash ponds and a plan for identifying potable well use within 2500 feet of the ash ponds. These plans must be submitted for Illinois EPA review within 45 days of the date of this letter.

Copies of the proposed groundwater monitoring plan shall be submitted to the Industrial Unit, Permit Section, Division of Water Pollution Control and to the Hydrogeologic and Assessment Unit, Groundwater Section, Division of Public Water Supplies.

Thank you for your efforts. If you have any question concerning this letter, please contact Darin LeCrone of the Industrial Unit or Bill Buscher of the Hydrogeologic and Assessment Unit.

Sincerely,

Alan Keller

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

cc: DesPlaines Region
Records

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 - (217) 782-2829
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ROD R. BLAGOJEVICH, GOVERNOR DOUGLAS P. SCOTT, DIRECTOR

217/782-0610

May 15, 2009

Midwest Generation, LLC.
Environmental Health and Safety Department
One Financial Place
440 South LaSalle Street, Suite 3500
Chicago, Illinois 60605

Re: Ash Impoundment Groundwater Protection
Hydrogeologic Assessment Plan
Waukegan Station – NPDES Permit No. IL0002259

Gentlemen:

The Illinois Environmental Protection Agency (Illinois EPA) has undertaken efforts to evaluate ash impoundments at the various power generation facilities in Illinois which have one or more ash impoundments either currently in use, or out of use. A review of available groundwater monitoring data indicates that many of these facilities have no groundwater monitoring program and therefore there is no reliable way to demonstrate that these impoundments are in compliance with 35 Ill. Adm. Code Part 620.

Based on information available to the Illinois EPA, Waukegan Station operates 2 lined ash ponds, but does not have a monitoring well system to demonstrate compliance with the Title 35, Part 620 groundwater quality standards. Regional maps of the area indicate that resource groundwater may exist proximate to the ash ponds. Additionally, the Illinois State Geological Survey's well data base indicates that potable water supply wells may exist in the vicinity. Therefore, the Waukegan Station must submit a hydrogeologic assessment plan to characterize the subsurface geology and evaluate the potential for contaminant migration from the ash ponds. In addition a plan for identifying potable water supply well use within 2500 feet of the ash ponds must be provided. These plans must be submitted for Illinois EPA review within 60 days of the date of this letter. Upon Illinois EPA approval Waukegan Station will have 180 days to complete the work identified in these plans.

Copies of the proposed hydrogeologic assessment plan and the plan for identifying potable water supply wells shall be submitted to the Industrial Unit, Permit Section, Division of Water Pollution Control and to the Hydrogeology and Compliance Unit, Groundwater Section, Division of Public Water Supplies.

Thank you for your efforts. If you have any question concerning this letter, please contact Darin LeCrone of the Industrial Unit or Bill Buscher of the Hydrogeology and Compliance Unit.

Sincerely,

Alan Keller by DLC

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

cc: DesPlaines Region
Records

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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217/782-0610

DOUGLAS P. SCOTT, DIRECTOR

April 10, 2009

Midwest Generation, LLC.
Environmental Health and Safety Department
One Financial Place
440 South LaSalle Street, Suite 3500
Chicago, Illinois 60605

Re: Ash Impoundment Groundwater Protection
Development of Groundwater Monitoring Plan
Powerton Station – NPDES Permit No. IL0002232

Gentlemen:

The Illinois Environmental Protection Agency (Illinois EPA) has undertaken efforts to evaluate ash impoundments at the various power generation facilities in Illinois which have one or more ash impoundments either currently in use, or out of use. A review of available groundwater monitoring data indicates that many of these facilities have no groundwater monitoring program and therefore there is no reliable way to demonstrate that these impoundments are in compliance with 35 Ill. Adm. Code Part 620.

Based on information available to the Illinois EPA, this facility operates three lined ash ponds, but does not have a monitoring well system to demonstrate compliance with the Title 35, Part 620 groundwater quality standards. Regional maps of the area indicate that Class I: Potable Resource Groundwater is likely to exist proximate to the ash ponds. Additionally, the Illinois State Geological Survey's well data base indicates potable water system wells may exist in the vicinity. Therefore, pursuant to Section 4 and 12 of the Illinois Environmental Protection Act, the Powerton Station must submit a hydrogeologic assessment plan to characterize the subsurface hydrogeology and evaluate the potential for contaminant migration from these ash ponds. This assessment must include a groundwater monitoring plan for these ash ponds and a plan for identifying potable well use within 2500 feet of the ash ponds. These plans must be submitted for Illinois EPA review within 45 days of the date of this letter.

Copies of the proposed groundwater monitoring plan shall be submitted to the Industrial Unit, Permit Section, Division of Water Pollution Control and to the Hydrogeologic and Assessment Unit, Groundwater Section, Division of Public Water Supplies.

Thank you for your efforts. If you have any question concerning this letter, please contact Darin LeCrone of the Industrial Unit or Bill Buscher of the Hydrogeologic and Assessment Unit.

Sincerely,

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

cc: Peoria Region
Records

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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217/782-0610

DOUGLAS P. SCOTT, DIRECTOR

April 10, 2009

Midwest Generation, LLC.
Environmental Health and Safety Department
One Financial Place
440 South LaSalle Street, Suite 3500
Chicago, Illinois 60605

Re: Ash Impoundment Groundwater Protection
Development of Groundwater Monitoring Plan
Joliet 29 Station – NPDES Permit No. IL0064254

Gentlemen:

The Illinois Environmental Protection Agency (Illinois EPA) has undertaken efforts to evaluate ash impoundments at the various power generation facilities in Illinois which have one or more ash impoundments either currently in use, or out of use. A review of available groundwater monitoring data indicates that many of these facilities have no groundwater monitoring program and therefore there is no reliable way to demonstrate that these impoundments are in compliance with 35 Ill. Adm. Code Part 620.

Based on information available to the Illinois EPA, this facility operates three lined ash ponds, but does not have a monitoring well system to demonstrate compliance with the Title 35, Part 620 groundwater quality standards. Regional maps of the area indicate that Class I: Potable Resource Groundwater is likely to exist proximate to the ash ponds. Additionally, the Illinois State Geological Survey's well data base indicates potable water system wells may exist in the vicinity. Therefore, pursuant to Section 4 and 12 of the Illinois Environmental Protection Act, the Joliet 29 Station must submit a hydrogeologic assessment plan to characterize the subsurface hydrogeology and evaluate the potential for contaminant migration from these ash ponds. This assessment must include a groundwater monitoring plan for these ash ponds and a plan for identifying potable well use within 2500 feet of the ash ponds. These plans must be submitted for Illinois EPA review within 45 days of the date of this letter.

Copies of the proposed groundwater monitoring plan shall be submitted to the Industrial Unit, Permit Section, Division of Water Pollution Control and to the Hydrogeologic and Assessment Unit, Groundwater Section, Division of Public Water Supplies.

Thank you for your efforts. If you have any question concerning this letter, please contact Darin LeCrone of the Industrial Unit or Bill Buscher of the Hydrogeologic and Assessment Unit.

Sincerely,

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

cc: DesPlaines Region
Records

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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ROD R. BLAGOJEVICH, GOVERNOR DOUGLAS P. SCOTT, DIRECTOR

217/782-0610

May 15, 2009

Midwest Generation, LLC.
Environmental Health and Safety Department
One Financial Place
440 South LaSalle Street, Suite 3500
Chicago, Illinois 60605

Re: Ash Impoundment Groundwater Protection
Hydrogeologic Assessment Plan
Crawford Station – NPDES Permit No. IL0002186

Gentlemen:

The Illinois Environmental Protection Agency (Illinois EPA) has undertaken efforts to evaluate ash impoundments at the various power generation facilities in Illinois which have one or more ash impoundments either currently in use, or out of use. A review of available groundwater monitoring data indicates that many of these facilities have no groundwater monitoring program and therefore there is no reliable way to demonstrate that these impoundments are in compliance with 35 Ill. Adm. Code Part 620.

Based on information available to the Illinois EPA, Crawford Station operates 1 lined ash pond, but does not have a monitoring well system to demonstrate compliance with the Title 35, Part 620 groundwater quality standards. Regional maps of the area indicate that resource groundwater may exist proximate to the ash pond. Additionally, the Illinois State Geological Survey's well data base indicates that potable water supply wells may exist in the vicinity. Therefore, the Crawford Station must submit a hydrogeologic assessment plan to characterize the subsurface geology and evaluate the potential for contaminant migration from the ash pond. In addition a plan for identifying potable water supply well use within 2500 feet of the ash pond must be provided. These plans must be submitted for Illinois EPA review within 60 days of the date of this letter. Upon Illinois EPA approval Crawford Station will have 180 days to complete the work identified in these plans.

Copies of the proposed hydrogeologic assessment plan and the plan for identifying potable water supply wells shall be submitted to the Industrial Unit, Permit Section, Division of Water Pollution Control and to the Hydrogeology and Compliance Unit, Groundwater Section, Division of Public Water Supplies.

Thank you for your efforts. If you have any question concerning this letter, please contact Darin LeCrone of the Industrial Unit or Bill Buscher of the Hydrogeology and Compliance Unit.

Sincerely,

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

cc: DesPlaines Region
Records

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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217/782-0610

DOUGLAS P. SCOTT, DIRECTOR

April 10, 2009

Dynegy Midwest Generation, Inc.
Operations Environmental Compliance
604 Pierce Boulevard
O'Fallon, Illinois 62269

Re: Ash Impoundment Groundwater Protection
Development of Groundwater Monitoring Plan
Baldwin Energy Center – NPDES Permit No. IL0000043

Gentlemen:

The Illinois Environmental Protection Agency (Illinois EPA) has undertaken efforts to evaluate ash impoundments at the various power generation facilities in Illinois which have one or more ash impoundments either currently in use, or out of use. A review of available groundwater monitoring data indicates that many of these facilities have no groundwater monitoring program and therefore there is no reliable way to demonstrate that these impoundments are in compliance with 35 Ill. Adm. Code Part 620.

Based on information available to the Illinois EPA, this facility operates six active unlined ash ponds and has one inactive unlined ash pond, but does not have a monitoring well system to demonstrate compliance with the Title 35, Part 620 groundwater quality standards. Regional maps of the area indicate that Class I: Potable Resource Groundwater is likely to exist proximate to the ash ponds. Additionally, the Illinois State Geological Survey's well data base indicates potable water system wells are likely to exist in the vicinity. Therefore, pursuant to Section 4 and 12 of the Illinois Environmental Protection Act, Baldwin Energy Center must submit a hydrogeologic assessment plan to characterize the subsurface hydrogeology and evaluate the potential for contaminant migration from these ash ponds. This assessment must include a groundwater monitoring plan for these ash ponds and a plan for identifying potable well use within 2500 feet of the ash ponds. These plans must be submitted for Illinois EPA review within 45 days of the date of this letter.

Copies of the proposed groundwater monitoring plan shall be submitted to the Industrial Unit, Permit Section, Division of Water Pollution Control and to the Hydrogeologic and Assessment Unit, Groundwater Section, Division of Public Water Supplies.

Thank you for your efforts. If you have any question concerning this letter, please contact Darin LeCrone of the Industrial Unit or Bill Buscher of the Hydrogeologic and Assessment Unit.

Sincerely,

Alan Keller

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

cc: Collinsville Region
Records

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 - (217) 782-3397
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601 - (312) 814-6026

DOUGLAS P. SCOTT, DIRECTOR

March 19, 2009

Mr. Rick Diericx
Senior Director, Operations Environmental Compliance
Dynegy Midwest Region Operations
604 Pierce Boulevard
O'Fallon, Illinois 62269

Dear Mr. Diericx:

The Illinois Environmental Protection Agency (Illinois EPA) is requesting that Dynegy Midwest Generation, Inc. (Dynegy) conduct an evaluation of the monitoring well system that is being operated at the Vermillion Station. Evaluation of analytical results taken in 2006 and 2007, from down gradient monitoring well MW-13A, indicate an exceedence of the TDS Class I numerical groundwater standard, during each of the six sampling events that were available for review. However, MW-10, the only up gradient monitoring well, had insufficient water to collect a sample during each of the sampling events.

An additional point of concern is that for five of the six monitoring events from 2006 and 2007, which were available, the reported TDS value for MW-13A was exactly 1,400 mg/l. The sixth value was 1,500 mg/l. While such consistent results are not beyond the realm of possibility, it does raise a concern over the sensitivity of the analytical method being used.

Pursuant to Sections 4(b),(c),(d) and (e), and 12(a),(b) and (d) of the Illinois Environmental Protection Act (415 ILCS 5/et seq.), the Illinois EPA is requesting that within 90 days of the date of this letter Dynegy complete an evaluation of the existing monitoring well system at the Vermillion Station. The evaluation must:

1. Assess if the existing monitoring wells are properly placed and constructed; in a manner to collect groundwater samples, to provide representative background groundwater quality and to provide groundwater quality at the point of compliance.
2. Assess if the number and placement of monitoring wells is adequate to represent groundwater quality at both the East Ash Pond and North Ash Pond systems.
3. Assess whether appropriate analytical methods are being used to analyze the samples collected and note the frequency at which samples are being collected.
4. Recommend changes or additions to the existing monitoring system and analytical methods to address deficiencies identified in bullets 1-3, for Illinois EPA approval.
5. Identify sample results that exceed Class I numerical groundwater standards.

In addition to the evaluation of the on-site monitoring system, the Vermillion Station must identify all potable well use within 2,500 feet of any of the ash ponds, and report this information to the Illinois EPA.

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

Sincerely,

William E. Buscher

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

CC: Marcia Willhite
Sanjay Sofat
Rick Cobb
Al Keller
Kurt Neibergall
Darin LeCrone
Connie Tonsor
Lynn Dunaway
records unit

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 - (217) 782-2829
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601 - (312) 814-6026

ROD R. BLAGOJEVICH, GOVERNOR DOUGLAS P. SCOTT, DIRECTOR

217/782-0610

May 15, 2009

Ameren Energy Generating Company
Environmental, Safety and Health
One Ameren Plaza
1901 Chouteau Avenue
P.O. Box 66149
St. Louis, Missouri 63166-6149

Re: Ash Impoundment Groundwater Protection
Hydrogeologic Assessment Plan
Newton Station – NPDES Permit No. IL0049191

Gentlemen:

The Illinois Environmental Protection Agency (Illinois EPA) has undertaken efforts to evaluate ash impoundments at the various power generation facilities in Illinois which have one or more ash impoundments either currently in use, or out of use. A review of available groundwater monitoring data indicates that many of these facilities have no groundwater monitoring program and therefore there is no reliable way to demonstrate that these impoundments are in compliance with 35 Ill. Adm. Code Part 620.

Based on information available to the Illinois EPA, Newton Station operates 2 unlined ash ponds, but does not have a monitoring well system to demonstrate compliance with the Title 35, Part 620 groundwater quality standards. Regional maps of the area indicate that resource groundwater may exist proximate to the ash ponds. Additionally, the Illinois State Geological Survey's well data base indicates that potable water supply wells may exist in the vicinity. Therefore, the Newton Station must submit a hydrogeologic assessment plan to characterize the subsurface geology and evaluate the potential for contaminant migration from the ash ponds. In addition a plan for identifying potable water supply well use within 2500 feet of the ash ponds must be provided. These plans must be submitted for Illinois EPA review within 60 days of the date of this letter. Upon Illinois EPA approval Newton Station will have 180 days to complete the work identified in these plans.

Copies of the proposed hydrogeologic assessment plan and the plan for identifying potable water supply wells shall be submitted to the Industrial Unit, Permit Section, Division of Water Pollution Control and to the Hydrogeology and Compliance Unit, Groundwater Section, Division of Public Water Supplies.

Thank you for your efforts. If you have any question concerning this letter, please contact Darin LeCrone of the Industrial Unit or Bill Buscher of the Hydrogeology and Compliance Unit.

Sincerely,

Alan Keller by DEC

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

cc: Champaign Region
Records

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 - (217) 782-2829
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601 - (312) 814-6026

217/782-0610

DOUGLAS P. SCOTT, DIRECTOR

April 10, 2009

Ameren Energy Generating Company
Environmental, Safety and Health
One Ameren Plaza
1901 Chouteau Avenue
P.O. Box 66149
St. Louis, Missouri 63166-6149

Re: Ash Impoundment Groundwater Protection
Development of Groundwater Monitoring Plan
Edwards Station -- NPDES Permit No. IL0001970

Gentlemen:

The Illinois Environmental Protection Agency (Illinois EPA) has undertaken efforts to evaluate ash impoundments at the various power generation facilities in Illinois which have one or more ash impoundments either currently in use, or out of use. A review of available groundwater monitoring data indicates that many of these facilities have no groundwater monitoring program and therefore there is no reliable way to demonstrate that these impoundments are in compliance with 35 Ill. Adm. Code Part 620.

Based on information available to the Illinois EPA, this facility operates one active unlined ash pond, but does not have a monitoring well system to demonstrate compliance with the Title 35, Part 620 groundwater quality standards. Regional maps of the area indicate that Class I: Potable Resource Groundwater is likely to exist proximate to the ash pond. Additionally, the Illinois State Geological Survey's well data base indicates potable water system wells are likely to exist in the vicinity. Therefore, pursuant to Section 4 and 12 of the Illinois Environmental Protection Act, Edwards Station must submit a hydrogeologic assessment plan to characterize the subsurface hydrogeology and evaluate the potential for contaminant migration from this ash pond. This assessment must include a groundwater monitoring plan for this ash pond and a plan for identifying potable well use within 2500 feet of the ash pond. These plans must be submitted for Illinois EPA review within 45 days of the date of this letter.

Copies of the proposed groundwater monitoring plan shall be submitted to the Industrial Unit, Permit Section, Division of Water Pollution Control and to the Hydrogeologic and Assessment Unit, Groundwater Section, Division of Public Water Supplies.

Thank you for your efforts. If you have any question concerning this letter, please contact Darin LeCrone of the Industrial Unit or Bill Buscher of the Hydrogeologic and Assessment Unit.

Sincerely,

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

cc: Peoria Region
Records

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 – (217) 782-3397
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601 – (312) 814-6026

DOUGLAS P. SCOTT, DIRECTOR

March 20, 2009

Michael Smallwood
Ameren Services
1 Ameren Plaza
1901 Chouteau Ave.
St. Louis, Missouri 63103

Dear Sirs:

The Illinois Environmental Protection Agency (Illinois EPA) is requesting information pursuant to Sections 4(b),(c),(d) and (e), and 12(a),(b) and (d) of the Illinois Environmental Protection Act (415 ILCS 5/et seq.). The Illinois EPA requests that Ameren provide the two most recent years of groundwater monitoring data for the Coffeen Station ash pond system, and a map showing monitoring well locations.

In addition to submitting the monitoring data, Ameren must complete a well survey at the Coffeen Station to identify potable well use within 2,500 feet of the ash pond system and report this information to the Illinois EPA within 60 days of the date of this letter.

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

Sincerely,

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

CC: Marcia Willhite
Sanjay Sofat
Rick Cobb
Al Keller
Kurt Neibergall
Darin LeCrone
Connie Tonsor
Lynn Dunaway records mtb

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 - (217) 782-2829
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601 - (312) 814-6026

217/782-0610

DOUGLAS P. SCOTT, DIRECTOR

April 10, 2009

Ameren Energy Generating Company
Environmental, Safety and Health
One Ameren Plaza
1901 Chouteau Avenue
P.O. Box 66149
St. Louis, Missouri 63166-6149

Re: Ash Impoundment Groundwater Protection
Development of Groundwater Monitoring Plan
Meredosia Station – NPDES Permit No. IL0000116

Gentlemen:

The Illinois Environmental Protection Agency (Illinois EPA) has undertaken efforts to evaluate ash impoundments at the various power generation facilities in Illinois which have one or more ash impoundments either currently in use, or out of use. A review of available groundwater monitoring data indicates that many of these facilities have no groundwater monitoring program and therefore there is no reliable way to demonstrate that these impoundments are in compliance with 35 Ill. Adm. Code Part 620.

Based on information available to the Illinois EPA, this facility operates two active unlined ash ponds and has three inactive unlined ash ponds, but does not have a monitoring well system to demonstrate compliance with the Title 35, Part 620 groundwater quality standards. Regional maps of the area indicate that Class I: Potable Resource Groundwater is likely to exist proximate to these ash ponds. Additionally, the Illinois State Geological Survey's well data base indicates potable water system wells are likely to exist in the vicinity. Therefore, pursuant to Section 4 and 12 of the Illinois Environmental Protection Act, Meredosia Station must submit a hydrogeologic assessment plan to characterize the subsurface hydrogeology and evaluate the potential for contaminant migration from these ash ponds. This assessment must include a groundwater monitoring plan for these ash ponds and a plan for identifying potable well use within 2500 feet of the ash ponds. These plans must be submitted for Illinois EPA review within 45 days of the date of this letter.

Copies of the proposed groundwater monitoring plan shall be submitted to the Industrial Unit, Permit Section, Division of Water Pollution Control and to the Hydrogeologic and Assessment Unit, Groundwater Section, Division of Public Water Supplies.

Thank you for your efforts. If you have any question concerning this letter, please contact Darin LeCrone of the Industrial Unit or Bill Buscher of the Hydrogeologic and Assessment Unit.

Sincerely,

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

cc: Springfield Region
Records

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 - (217) 782-2829
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601 - (312) 814-6026

217/782-0610

DOUGLAS P. SCOTT, DIRECTOR

April 10, 2009

Ameren Energy Generating Company
Environmental, Safety and Health
One Ameren Plaza
1901 Chouteau Avenue
P.O. Box 66149
St. Louis, Missouri 63166-6149

Re: Ash Impoundment Groundwater Protection
Development of Groundwater Monitoring Plan
Venice Station – NPDES Permit No. IL0000175

Gentlemen:

The Illinois Environmental Protection Agency (Illinois EPA) has undertaken efforts to evaluate ash impoundments at the various power generation facilities in Illinois which have one or more ash impoundments either currently in use, or out of use. A review of available groundwater monitoring data indicates that many of these facilities have no groundwater monitoring program and therefore there is no reliable way to demonstrate that these impoundments are in compliance with 35 Ill. Adm. Code Part 620.

Based on information available to the Illinois EPA, this facility operates two active unlined ash ponds though these ponds may no longer be used, but does not have a monitoring well system to demonstrate compliance with the Title 35, Part 620 groundwater quality standards. Regional maps of the area indicate that Class I: Potable Resource Groundwater is likely to exist proximate to these ash ponds. Additionally, the Illinois State Geological Survey's well data base indicates potable water system wells may exist in the vicinity. Therefore, pursuant to Section 4 and 12 of the Illinois Environmental Protection Act, Venice Station must submit a hydrogeologic assessment plan to characterize the subsurface hydrogeology and evaluate the potential for contaminant migration from these ash ponds. This assessment must include a groundwater monitoring plan for these ash ponds and a plan for identifying potable well use within 2500 feet of the ash ponds. These plans must be submitted for Illinois EPA review within 45 days of the date of this letter

Copies of the proposed groundwater monitoring plan shall be submitted to the Industrial Unit, Permit Section, Division of Water Pollution Control and to the Hydrogeologic and Assessment Unit, Groundwater Section, Division of Public Water Supplies.

Thank you for your efforts. If you have any question concerning this letter, please contact Darin LeCrone of the Industrial Unit or Bill Buscher of the Hydrogeologic and Assessment Unit.

Sincerely,

Alan Keller

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

cc: Collinsville Region
Records

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 - (217) 782-2829
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601 - (312) 814-6026

217/782-0610

DOUGLAS P. SCOTT, DIRECTOR

April 10, 2009

Ameren Energy Generating Company
Environmental, Safety and Health
One Ameren Plaza
1901 Chouteau Avenue
P.O. Box 66149
St. Louis, Missouri 63166-6149

Re: Ash Impoundment Groundwater Protection
Development of Groundwater Monitoring Plan
Grand Tower Station – NPDES Permit No. IL0000124

Gentlemen:

The Illinois Environmental Protection Agency (Illinois EPA) has undertaken efforts to evaluate ash impoundments at the various power generation facilities in Illinois which have one or more ash impoundments either currently in use, or out of use. A review of available groundwater monitoring data indicates that many of these facilities have no groundwater monitoring program and therefore there is no reliable way to demonstrate that these impoundments are in compliance with 35 Ill. Adm. Code Part 620.

Based on information available to the Illinois EPA, this facility operates one active unlined ash pond, but does not have a monitoring well system to demonstrate compliance with the Title 35, Part 620 groundwater quality standards. Regional maps of the area indicate that Class I: Potable Resource Groundwater is likely to exist proximate to the ash pond. Additionally, the Illinois State Geological Survey's well data base indicates potable water system wells may exist in the vicinity. Therefore, pursuant to Section 4 and 12 of the Illinois Environmental Protection Act, Grand Tower Station must submit a hydrogeologic assessment plan to characterize the subsurface hydrogeology and evaluate the potential for contaminant migration from the ash pond. This assessment must include a groundwater monitoring plan for the ash pond and a plan for identifying potable well use within 2500 feet of the ash pond. These plans must be submitted for Illinois EPA review within 45 days of the date of this letter.

Copies of the proposed groundwater monitoring plan shall be submitted to the Industrial Unit, Permit Section, Division of Water Pollution Control and to the Hydrogeologic and Assessment Unit, Groundwater Section, Division of Public Water Supplies.

Thank you for your efforts. If you have any question concerning this letter, please contact Darin LeCrone of the Industrial Unit or Bill Buscher of the Hydrogeologic and Assessment Unit.

Sincerely,

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

cc: Marion Region
Records

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 - (217) 782-2829
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601 - (312) 814-6026

217/782-0610

DOUGLAS P. SCOTT, DIRECTOR

April 10, 2009

Electric Energy, Inc.
P.O. Box 165
2100 Portland Road
Joppa, Illinios 62953

Re: Ash Impoundment Groundwater Protection
Development of Groundwater Monitoring Plan
Electric Energy Power Station – NPDES Permit No. IL0004171

Gentlemen:

The Illinois Environmental Protection Agency (Illinois EPA) has undertaken efforts to evaluate ash impoundments at the various power generation facilities in Illinois which have one or more ash impoundments either currently in use, or out of use. A review of available groundwater monitoring data indicates that many of these facilities have no groundwater monitoring program and therefore there is no reliable way to demonstrate that these impoundments are in compliance with 35 Ill. Adm. Code Part 620.

Based on information available to the Illinois EPA, this facility operates one active lined ash pond and has one inactive ash pond, but does not have a monitoring well system to demonstrate compliance with the Title 35, Part 620 groundwater quality standards. Regional maps of the area indicate that Class I: Potable Resource Groundwater may exist proximate to the ash ponds. Additionally, the Illinois State Geological Survey's well data base indicates potable water system wells are likely to exist in the vicinity. Therefore, pursuant to Section 4 and 12 of the Illinois Environmental Protection Act, Electric Energy Power Station must submit a hydrogeologic assessment plan to characterize the subsurface hydrogeology and evaluate the potential for contaminant migration from these ash ponds. This assessment must include a groundwater monitoring plan for these ash ponds and a plan for identifying potable well use within 2500 feet of the ash ponds. These plans must be submitted for Illinois EPA review within 45 days of the date of this letter.

Copies of the proposed groundwater monitoring plan shall be submitted to the Industrial Unit, Permit Section, Division of Water Pollution Control and to the Hydrogeologic and Assessment Unit, Groundwater Section, Division of Public Water Supplies.

Thank you for your efforts. If you have any question concerning this letter, please contact Darin LeCrone of the Industrial Unit or Bill Buscher of the Hydrogeologic and Assessment Unit.

Sincerely,

Alan Keller

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

cc: Marion Region
Records

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 - (217) 782-2829
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601 - (312) 814-6026

ROD R. BLAGOJEVICH, GOVERNOR DOUGLAS P. SCOTT, DIRECTOR

217/782-0610

May 15, 2009

Dominion
P.O. Box 260
Kincaid, Illinois 62540

Re: Kincaid Generation, LLC
Ash Impoundment Groundwater Protection
Hydrogeologic Assessment Plan
Kincaid Station – NPDES Permit No. IL0002241

Gentlemen:

The Illinois Environmental Protection Agency (Illinois EPA) has undertaken efforts to evaluate ash impoundments at the various power generation facilities in Illinois which have one or more ash impoundments either currently in use, or out of use. A review of available groundwater monitoring data indicates that many of these facilities have no groundwater monitoring program and therefore there is no reliable way to demonstrate that these impoundments are in compliance with 35 Ill. Adm. Code Part 620.

Based on information available to the Illinois EPA, Kincaid Generating Station operates 1 unlined ash pond, but does not have a monitoring well system to demonstrate compliance with the Title 35, Part 620 groundwater quality standards. Regional maps of the area indicate that resource groundwater may exist proximate to the ash pond. Additionally, the Illinois State Geological Survey's well data base indicates that potable water supply wells may exist in the vicinity. Therefore, the Kincaid Station must submit a hydrogeologic assessment plan to characterize the subsurface geology and evaluate the potential for contaminant migration from the ash pond. In addition a plan for identifying potable water supply well use within 2500 feet of the ash pond must be provided. These plans must be submitted for Illinois EPA review within 60 days of the date of this letter. Upon Illinois EPA approval Kincaid Station will have 180 days to complete the work identified in these plans.

Copies of the proposed hydrogeologic assessment plan and the plan for identifying potable water supply wells shall be submitted to the Industrial Unit, Permit Section, Division of Water Pollution Control and to the Hydrogeology and Compliance Unit, Groundwater Section, Division of Public Water Supplies.

Thank you for your efforts. If you have any question concerning this letter, please contact Darin LeCrone of the Industrial Unit or Bill Buscher of the Hydrogeology and Compliance Unit.

Sincerely,

Alan Keller by DLL

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

cc: Springfield Region
Records

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 - (217) 782-2829
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601 - (312) 814-6026

ROD R. BLAGOJEVICH, GOVERNOR DOUGLAS P. SCOTT, DIRECTOR

217/782-0610

May 15, 2009

City of Springfield
Office of Public Utilities
City Water, Light and Power
Environmental Affairs
7th and Monroe Street
Springfield, Illinois 62757

Re: Ash Impoundment Groundwater Protection
Hydrogeologic Assessment Plan
City Water Light and Power – NPDES Permit No. IL0024767

Gentlemen:

The Illinois Environmental Protection Agency (Illinois EPA) has undertaken efforts to evaluate ash impoundments at the various power generation facilities in Illinois which have one or more ash impoundments either currently in use, or out of use. A review of available groundwater monitoring data indicates that many of these facilities have no groundwater monitoring program and therefore there is no reliable way to demonstrate that these impoundments are in compliance with 35 Ill. Adm. Code Part 620.

Based on information available to the Illinois EPA, CWLP operates 2 unlined ash ponds, but does not have a monitoring well system to demonstrate compliance with the Title 35, Part 620 groundwater quality standards. Regional maps of the area indicate that resource groundwater may exist proximate to the ash ponds. Additionally, the Illinois State Geological Survey's well data base indicates that potable water supply wells may exist in the vicinity. Therefore, CWLP must submit a hydrogeologic assessment plan to characterize the subsurface geology and evaluate the potential for contaminant migration from the ash ponds. In addition a plan for identifying potable water supply well use within 2500 feet of the ash ponds must be provided. These plans must be submitted for Illinois EPA review within 60 days of the date of this letter. Upon Illinois EPA approval CWLP will have 180 days to complete the work identified in these plans.

Copies of the proposed hydrogeologic assessment plan and the plan for identifying potable water supply wells shall be submitted to the Industrial Unit, Permit Section, Division of Water Pollution Control and to the Hydrogeology and Compliance Unit, Groundwater Section, Division of Public Water Supplies.

Thank you for your efforts. If you have any question concerning this letter, please contact Darin LeCrone of the Industrial Unit or Bill Buscher of the Hydrogeology and Compliance Unit.

Sincerely,

Alan Keller by DLC

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

cc: Springfield Region
Records

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 - (217) 782-2829
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601 - (312) 814-6026

217/782-0610

DOUGLAS P. SCOTT, DIRECTOR

April 10, 2009

Prairie Power, Inc.
P.O. Box 10
Pearl, Illinois 62361

Re: Ash Impoundment Groundwater Protection
Development of Groundwater Monitoring Plan
Prairie Power, Inc. Station – NPDES Permit No. IL0036765

Gentlemen:

The Illinois Environmental Protection Agency (Illinois EPA) has undertaken efforts to evaluate ash impoundments at the various power generation facilities in Illinois which have one or more ash impoundments either currently in use, or out of use. A review of available groundwater monitoring data indicates that many of these facilities have no groundwater monitoring program and therefore there is no reliable way to demonstrate that these impoundments are in compliance with 35 Ill. Adm. Code Part 620.

Based on information available to the Illinois EPA, this facility operates one active unlined ash pond, but does not have a monitoring well system to demonstrate compliance with the Title 35, Part 620 groundwater quality standards. Regional maps of the area indicate that Class I: Potable Resource Groundwater is likely to exist proximate to the ash pond. Additionally, the Illinois State Geological Survey's well data base indicates potable water system wells may exist in the vicinity. Therefore, pursuant to Section 4 and 12 of the Illinois Environmental Protection Act, Prairie Power, Inc. Station must submit a hydrogeologic assessment plan to characterize the subsurface hydrogeology and evaluate the potential for contaminant migration from this ash pond. This assessment must include a groundwater monitoring plan for the ash pond and a plan for identifying potable well use within 2500 feet of the ash pond. These plans must be submitted for Illinois EPA review within 45 days of the date of this letter.

Copies of the proposed groundwater monitoring plan shall be submitted to the Industrial Unit, Permit Section, Division of Water Pollution Control and to the Hydrogeologic and Assessment Unit, Groundwater Section, Division of Public Water Supplies.

Thank you for your efforts. If you have any question concerning this letter, please contact Darin LeCrone of the Industrial Unit or Bill Buscher of the Hydrogeologic and Assessment Unit.

Sincerely,

Alan Keller

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

cc: Marion Region
Records

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 – (217) 782-3397
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601 – (312) 814-6026

DOUGLAS P. SCOTT, DIRECTOR

March 20, 2009

Jason McLaurin, Environmental Coordinator
Southern Illinois Power Cooperative
11543 Lake of Egypt Road
Marion, Illinois 62959

Dear Sirs:

The Illinois Environmental Protection Agency (Illinois EPA) is requesting information pursuant to Sections 4(b),(c),(d) and (e), and 12(a),(b) and (d) of the Illinois Environmental Protection Act (415 ILCS 5/et seq.). The Illinois EPA requests that Southern Illinois Power Cooperative provide the two most recent years of groundwater monitoring data for the Williamson County generating station ash pond system, and a map showing monitoring well locations.

In addition to submitting the monitoring data, Southern Illinois Power Cooperative must complete a well survey at the Williamson County generating station to identify potable well use within 2,500 feet of the ash pond system and report this information to the Illinois EPA within 60 days of the date of this letter.

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

Sincerely,

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

CC: Marcia Willhite
Sanjay Sofat
Rick Cobb
Al Keller
Kurt Neibergall
Darin LeCrone
Connie Tonsor
Lynn Dunaway records mco