

ennifer T. Nijman
en@nijmanfranzetti.comSusan M. Franzetti
sf@nijmanfranzetti.com

July 27, 2012

VIA OVERNIGHT MAILIllinois EPA
Division of Public Water Supplies
Attn: Andrea Rhodes, CAS #19
P.O. Box 19276
Springfield, IL 62794-9276Re: Violation Notice: Midwest Generation, LLC, Joliet #29 Generating Station
Identification No.: 6284
Violation Notice No.: W-2012-00059

Dear Ms. Rhodes:

In response to the above-referenced June 11, 2012 Violation Notice ("VN"), received on June 13, 2012, this written response is timely submitted on behalf of the Midwest Generation, LLC ("MWG"), Joliet #29 Generating Station ("Joliet #29"). MWG also requests a meeting with the Illinois Environmental Protection Agency ("Illinois EPA" or the "Agency") to discuss the VN and information provided in this response.

MWG regrets that the Illinois EPA decided to issue the VN because MWG has tried to work cooperatively with the Agency concerning the hydrogeologic assessment of the coal ash ponds at Joliet #29 even though it had significant concerns and objections to how the VN has proceeded in this matter.¹ Nevertheless, MWG complied with the Agency's request that it conduct a hydrogeologic assessment of the area around the coal ash ponds and followed its requirements and comments for how the hydrogeologic assessment should be conducted, even though it was under no legal obligation to do so.² At no time however did MWG agree that the scope and nature of the hydrological assessment the Agency required it to perform would

¹ See, e.g., MWG (B. Constantelos) letter to Illinois EPA (A. Keller) dated July 15, 2009. MWG is also working cooperatively with the USEPA with regards to the Coal Combustion Residuals Proposed Rules, EPA-HQ-RCRA-2009-0640, and is trying to coordinate the responses and requirements of both Agencies. USEPA first issued the proposed rules on June 21, 2010, and requested additional comments and information on Oct. 12, 2011. The additional information comment period closed on November 14, 2011, and MWG is now waiting for the USEPA to issue the final rule.

² MWG continues to reserve its objection that the Illinois EPA did not have the legal authority to require the hydrological assessments of the ash ponds under Sections 4 or 12 of the Illinois Environmental Protection Act (the "Act") or the Groundwater Quality Regulations, 35 Ill. Adm. Code Part 620.

provide any basis for concluding that the ash ponds were impacting groundwater. The alleged violations in the VN are based solely on the results of the hydrogeologic assessment MWG performed at the Agency's request. The results of the hydrogeologic assessment do not show that the coal ash ponds at the Joliet #29 Station are impacting the groundwater and do not provide the necessary evidence to support the alleged violations contained in the VN.

Well prior to the issuance of this VN, MWG met with the Agency to discuss the groundwater monitoring results and to discuss cooperatively how to proceed based on those results, including what additional actions, if any, the Agency believed were necessary. The Agency told MWG that it had not yet decided how to proceed. The next development was the issuance of the VN. The VN itself provides no information concerning the basis for the Agency's apparent conclusion that the Joliet #29 ash ponds are the cause of the alleged groundwater impacts, other than the conclusory statement that "[o]perations at ash impoundments have resulted in violations of the Groundwater Quality Standards." The VN also provides no information concerning the nature or type of corrective action which the Agency may deem acceptable to address the alleged violations. The Agency is not pursuing this matter in a way that allows MWG to prepare an effective response or a Compliance Commitment Agreement.

This letter provides a detailed response to each of the alleged violations in Attachment A of the VN to the extent possible given the lack of information provided in the VN. It also advances MWG's general objection to the legal sufficiency of the notice of the alleged violations contained in the VN. MWG maintains that the Illinois EPA cannot prove the alleged violations in the VN, and does not, by submitting this response, make any admissions of fact or law, or waive any of its defenses to those alleged violations.

I. General Objection to the Legal Sufficiency of the Violation Notice

The VN does not comply with the requirements of Section 31 of the Act. Section 31(a)(1)(B) of the Act requires the Illinois EPA to provide a detailed explanation of the violations alleged. 415 ILCS 5/31(a)(1)(B). Under the Act, MWG is entitled to notice of the specific violation charged against it and notice of the specific conduct constituting the violation.³ The VN fails to provide adequate notice to MWG of either the alleged violations or the activities which the Agency believes are necessary to address them. The VN states that "[o]perations at ash impoundments have resulted in violations of the Groundwater Quality Standards...." (Violation Notice, Attachment A, page 1, 1st paragraph) No further description of the alleged "ash impoundments" is provided in the VN. Three ash impoundments exist at the Joliet #29 Station. It is impossible to identify from the contents of the VN what operations or activities at the Joliet #29 Station the Agency is claiming are the cause of the alleged violations, including

³ *Citizens Utilities Co., v. IPCB*, 9 Ill.App.3d 158, 164, 289 N.E.2d 642, 648 (2nd Dist., 1972) (a person is entitled to notice of the specific violation charged against it and notice of the specific conduct constituting the violation). See also, *City of Pekin v. Environmental Protection Agency*, 47 Ill.App.3d 187, 192, 361 N.E.2d 889, 893 (3rd Dist., 1977).

whether it is the Agency's position that each of the Station's ash ponds, or only certain ones, have caused the alleged violations. Absent an accurate or complete description of the activities or operations that the Agency is alleging caused the violations, it is also not possible to identify what action might be necessary to resolve them. Attachment A to the VN states: "Included with each type of violation is an explanation of the activities that the Illinois EPA believes may resolve the violation." However, no such explanation is provided in the VN. In sum, the VN fails to comply with the legal requirement that it include a detailed explanation of the violations alleged, does not inform MWG of the specific conduct constituting the alleged violations and provides no notice of what is necessary to resolve the alleged violations. The Section 31 process is based on fundamental principles of due process. MWG should not have to speculate about what activities it allegedly engaged in that caused the violations and how to address them to resolve the alleged violations. In the absence of this material, statutorily-required information, the Agency also has effectively denied MWG's statutory right to formulate an acceptable Compliance Commitment Agreement to submit for the Agency's approval.

The VN is also deficient regarding its explanation of what laws MWG has allegedly violated. The VN solely alleges that MWG violated "Section 12" of the Act. 415 ILCS 5/12. It does not provide any further specification as to which of the provisions of Section 12 MWG has allegedly violated. Sec. 12 of the Act has nine subsections, consecutively numbered (a) through (i). Each of these subsections describes a different and distinct water pollution prohibition. 415 ILCS 5/12(a)-(i). However, the VN issued to MWG does not identify which of the nine subsections the Agency is alleging MWG violated. Based on the contents of Section 12 of the Act, the Agency is taking the position that MWG violated each and every one of the provisions of Section 12. Based on the relevant facts, it is highly unlikely that this is the intent of the VN. Therefore, the VN's general reference to Section 12 of the Act, without any other explanation, is not a "detailed explanation of the violations." This is another example of how the VN fails to provide MWG with adequate notice as a matter of law and thereby violates MWG's due process rights.⁴

By failing to provide a detailed explanation of the violations and any explanation of the activities that the Illinois EPA believes may resolve the violations, , the Agency has effectively denied MWG the opportunity to properly and thoroughly respond to the alleged violations and to make an acceptable offer to resolve them. The VN's deficiencies conflict with the intent and purpose of Section 31 of the Act, which is to avoid unnecessary litigation. Therefore, MWG respectfully requests that Illinois EPA rescind the VN and suspend any further enforcement action unless and until it has taken the necessary actions to correct and cure the legal deficiencies in the notice of the alleged violations by following the statutory requirements under Section 31(a)(1)(B) of the Act. 415 ILCS 5/31(a)(1)(B).

⁴ See, e.g., *Grigoleit Co. v. IEPA*, PCB 89-184, slip op at p. 11 (November 29, 1990) (Failure to notify permit applicant of alleged violations and provide an opportunity to provide information in response was a violation of applicant's due process rights)

II. Response to Alleged Violations in the VN

Subject to and without waiving its objections to the legal sufficiency of the VN, MWG has attempted to discern the legal basis for the alleged violations and to prepare this response in defense to those allegations based on various assumptions. MWG reserves the right to supplement this response, including by submitting a separate response should the Agency provide the legally required notice under Section 31 of the Act.

The VN alleges that the “[o]perations at ash impoundments” at MWG’s Joliet #29 Station have resulted in violations of certain of the Groundwater Quality Standards at the respective monitoring wells identified in the VN. (Violation Notice at Attachment A) MWG believes the Agency’s use of the term “ash impoundments” is intended to refer to the structures that the Joliet #29 Station commonly refers to as “ash ponds;” that is how they will be referred to here. The Agency further alleges that the alleged violations of the groundwater quality standards in 35 Ill. Admin. Code Part 620 also constitute violations of Section 12 of the Act and the underlying groundwater regulations in 35 Ill. Admin. Code Part § 620. It is undisputable that the Agency has the burden to prove these alleged violations both in proceedings before the Illinois Pollution Control Board (“Board”) and in the courts.⁵ However, the groundwater monitoring data on which the Agency primarily, if not solely relies, to assert these violations is not sufficient, legally or technically, to prove that any “ash impoundment” is the source of the alleged groundwater impacts. Further, based on the existing condition of the ash ponds, it is not likely that they are the source of the alleged impacts.

To support its defense to the alleged violations, MWG has set forth below a description of: (1) the condition and use of the ash ponds at Joliet #29; (2) the hydrogeologic assessment performed at the Joliet #29 Station; (3) the site hydrology; and (4) why the analytical data from the monitoring wells does not establish that the ash ponds are the source of the alleged exceedances of the groundwater standards.⁶ In addition, for certain of the alleged exceedances, additional information not considered by the Agency shows that it is either more likely, or at least as likely, that the source of the alleged exceedance is something other than the ash ponds. In either case, the Agency cannot sustain its burden to prove the alleged violations.

⁵ Section 31(e) of the Act provides in relevant part: “In hearings before the Board under this Title, the burden shall be on the Agency...to show either that the respondent has caused or threatened to cause...water pollution or that the respondent has violated or threatens to violate any provision of this Act or any rule or regulation of the Board or permit or term or condition thereof.” 415 ILCS 5/31(e); *Citizens Utilities v. IPCB*, 9 Ill. App. 3d 158, 164, 289 N.E.2d 642, 646 (1972) (the Agency has the burden of proof in enforcement actions).

⁶ In preparing this response, MWG closely reviewed the groundwater monitoring reports previously submitted to the Agency for the monitoring wells which are identified in the VN. In the course of this review, some data transcription errors were found in the previously submitted data tables included in the groundwater monitoring reports. Copies of the corrected data tables are enclosed. The tables are annotated to identify the nature of the corrections made to the previously submitted reports. However, none of the transcription errors affected the values that are the subject of and reported in the VN.

A. The Condition of the Ash Ponds

For several reasons, the construction and operation of the Joliet #29 ash ponds makes it unlikely that they are the cause of the alleged violations. The construction and operation of the ponds minimizes the potential for leakage from the ash ponds to groundwater.

First, the Joliet #29 ash ponds, known as Ponds 1, 2 and 3, are not ash disposal sites. The ash that enters the ponds is routinely removed. Ponds 1 and 2 are used both intermittently and interchangeably with each other. Their use is intermittent because under normal station operations, the ash wastewater generated by Joliet #29 is conveyed mechanically directly to the on-site, permitted Lincoln Stone Quarry Landfill without entering any of the ash ponds. The Lincoln Stone Quarry Landfill is the disposal site, not the ash ponds. However, because there are temporary periods of time when the ash wastewater conveyance system is not operational, due to maintenance reasons, either Pond 1 or Pond 2 is temporarily used until the ash wastewater conveyance system is brought back on line. During those times when ash wastewater is entering Pond 1 or Pond 2, the wastewater exits one of those ponds and then enters Pond 3. Pond 3 provides additional settling time for any residual ash. However, as is evident from visually observing the influent to Ponds 1 and 2 versus the influent to Pond 3, most of the ash settles out in Pond 1 or Pond 2 before flowing to Pond 3. Thus, the amount of ash that accumulates in Pond 3 is minimal. As necessary, the ash that accumulates in the ash ponds is periodically removed. However, because the use and purpose of Pond 3 as an ash settling basin is so minimal, and the rate of ash accumulation is so slow, it has not been necessary to remove ash from Pond 3 during the years that MWG has operated Joliet #29.

Second, unlike many other ash ponds in Illinois, the three ash ponds at Joliet #29 are not simply earthen ponds with no protection against the migration of constituents into the land or groundwater. Each of the Joliet #29 ash ponds is lined to prevent releases to groundwater. Ponds 1 and 2 were relined in 2008 with a high-density polyethylene ("HDPE") liner, overlain by a 12-inch sand cushion layer and a 6-inch limestone warning layer. HDPE liners have a permeability of approximately 10^{-13} cm/sec. Notably, this is a greater degree of permeability than is required in the Illinois Pollution Control Board (the "Board") regulations for constructing a new solid waste landfill where, unlike the ash ponds, waste materials are disposed of on a permanent basis. *See* 35 Ill. Admin. Code § 811.306(d). Pond 3 is lined with a liner of two 6-inch lifts of Poz-o-Pac.⁷ The permeability of the Poz-o-Pac liner is 10^{-7} cm/sec, the same degree of permeability that is required in the Board regulations for constructing a new landfill. *See* 35 Ill. Admin. Code § 811.306(d). All of the liners at Joliet #29 achieve or exceed the level of permeability which the Illinois regulations expressly recognize is sufficient to prevent the release of constituents to the environment. Accordingly, the facts regarding the liners in place for these three ash ponds support the conclusion that the ash ponds are not the source of the exceedances of groundwater standards alleged in the VN.

⁷ Poz-o-Pac is an aggregate liner similar to concrete.

The VN contains no facts concerning the condition of the Joliet #29 ash ponds that would indicate that they are allowing ash constituents to escape from the ponds. For example, the Agency does not contend that there are any breaches in the integrity of the liners that are allowing ash constituents to be released to the groundwater. The Agency similarly does not claim that the liners are inadequate to prevent the migration of constituents. In the absence of such evidence, it is certainly far more likely than not that the existing ash ponds at the Joliet #29 Station are not the source of the groundwater impacts alleged in the VN.

B. Hydrogeologic Assessment and Site Hydrology

The VN is based on the flawed premise that the hydrologic assessment which the Agency directed MWG to perform in the vicinity of the ash ponds would be sufficient to identify the ash ponds as the source of any elevated levels of constituents in the groundwater. This is simply not the case. The results of the hydrogeologic assessment at best give rise to more questions about the source of the alleged groundwater impacts, and do not prove that the existing ash ponds are the source of those impacts.

The results of the hydrogeologic assessment show a relatively uniform groundwater flow system. Groundwater flows from north to south, consistent with the expected flow direction due to the proximity to the south of Joliet #29 of the Des Plaines River. There does appear to be some convergence of flow in the vicinity of wells MW-2 and MW-5. The elevation of the Des Plaines River correlates to the groundwater elevations, indicating that the River is in direct hydraulic connection with the shallow aquifer. Based upon this groundwater flow direction, groundwater wells MW-8, MW-10, and MW-11 are upgradient wells, and groundwater wells MW-1 through MW-7 and MW-9 are down-gradient wells.

A comparison of the monitoring results from the upgradient (MW-8, MW-10, and MW-11) and down-gradient (MW-1 – MW-7, MW-9) wells does not support the Agency's contention that the ash ponds are the source of the alleged groundwater impacts. The distribution and observation of parameter concentrations is not consistent with coal ash ponds being the source of the impacts identified in the VN. For most of the parameters cited in the alleged violations, the distribution and observation of parameter concentrations is random and inconsistent. As more fully explained below, there are isolated monitoring well results showing exceedances of a given parameter that are not seen in any of the other eleven monitoring wells (*e.g.*, boron, sulfate, total dissolved solids, antimony). These random and isolated detections are not consistent with the ash ponds being the source of the exceedances. Moreover, isolated exceedances occurring within a period of six, consecutive quarterly monitoring events do not confirm the existence of actual groundwater impacts above the applicable standards. For other parameters, such as iron and manganese, the monitoring results are far more consistent with the presence of a reducing environment in the area of groundwater where these elevated levels were detected. Finally, the alleged exceedances for chloride are more logically explained by road salt seeping into the groundwater from U.S. Route 6 to the north, than due to the operation of the ash ponds. Each of these points is discussed in further detail below.

While boron is a primary indicator of potential coal ash impacts to groundwater, there are only two alleged exceedances of boron in monitoring well MW-11. This well is an upgradient monitoring well. These alleged boron exceedances occurred during two consecutive quarterly sampling events, but the boron levels detected in the next three, consecutive quarterly sampling events were all below the boron groundwater standard. Further, when all boron concentrations reported for the remaining 10 monitoring wells are evaluated, there is no indication of elevated boron concentrations that exceed, or even approach exceeding, the boron groundwater standard. There also is no increase in the levels of boron from monitoring wells that are upgradient of the ash ponds to the downgradient monitoring wells. The boron monitoring results clearly fail to support the conclusion that the operation of the ash ponds is causing the alleged groundwater impacts. Absent this evidence, and given that these ponds are lined with HDPE, the evidence supports the conclusion that the ash ponds have not caused the alleged groundwater impacts.

The monitoring data's distribution of sulfate detections from upgradient to downgradient also does not support the allegation that the ash ponds are causing the alleged groundwater impacts. The sulfate levels detected in all of the monitoring wells, with the limited exception of MW-9, are not only low level concentrations but also are similar levels in both the upgradient and downgradient monitoring wells. Monitoring well MW-9 is the only monitoring well where any sulfate exceedances were reported and there are no elevated boron concentrations reported for that well. The isolated, elevated sulfate concentrations in MW-9 are not an indication that the source is the ash ponds. Moreover, there are various, other potential sources of elevated sulfate concentrations in groundwater, both natural and anthropogenic, that are wholly unrelated to coal ash that could be causing the alleged groundwater impacts. Similarly, the alleged exceedances of total dissolved solids ("TDS") also were only observed at MW-9 and not in any of the other monitoring well locations. Again, these geographically isolated exceedances, without the accompanying presence of typical coal ash impact indicators, are technically and legally insufficient to support the conclusion that the ash ponds are the source.

Monitoring well MW-9 also had exceedances of iron and manganese. Both of these constituents are naturally-occurring metals in the Joliet area due to geochemical conditions. The alleged exceedances for iron and manganese are more likely the result of chemical conditions in the groundwater at Joliet #29. The oxidation-reduction potential around MW-9 is consistently low, showing a strongly reducing environment.⁸ The field parameter measurements at well MW-9 consistently indicate low dissolved oxygen (DO) and negative oxidation-reduction potential (ORP) which is indicative of a reducing environment. Typically in reducing environments, metals such as iron and manganese can be elevated depending on the associated mineralogy of the local sediments.⁹ The oxidation-reduction potential (ORP) data collected in the field during the quarterly sampling is also consistent with the presence of a strongly reducing

⁸ See attached Table 1: Field Parameter Data.

⁹ Thomas, Mary Ann. The Association of Arsenic with Redox Conditions, Depth, and Ground-Water Age in the Glacial Aquifer System of the Northern United States. Scientific Investigations Report 2007-5036, U.S. Geological Survey, Reston, VA. 2007; "Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Groundwater" EPA/600/R-98/128, September 1998. Table B.3.3.

environment. ORP levels at MW-9 are consistently the lowest levels found at the site. Therefore, the data shows that it is more likely than not that the elevated levels of these metals detected in the monitoring data are naturally occurring and unrelated to the operation of the ash ponds.

Manganese was also observed once in two other wells, MW-4 and MW-7, in the first quarterly sampling event. These manganese levels have not been seen in any of the subsequent five, consecutive sampling events. In fact, the subsequent MW-4 and MW-7 quarterly sampling results consistently indicate manganese concentrations approximately one order of magnitude or more lower than those detected in the first quarterly sampling event. The complete data set of manganese monitoring results from these wells strongly indicates that the two single manganese detections are not representative of actual groundwater conditions.

Turning to the antimony monitoring results, the alleged antimony exceedance identified in the VN occurred in monitoring well MW-2. There were also two antimony exceedances at well location MW-3 during the last two quarterly sampling events which were not included in the VN. As with other trace metals, there can be various potential sources of antimony, both natural and anthropogenic. In the absence of elevated concentrations of typical ash leachate parameters such as boron, exceedances of antimony cannot be ascribed to an ash source, much less to a release from the ash ponds.

Finally, the Agency's allegation that the ash ponds are the source of the elevated chloride levels detected in the groundwater is also unsubstantiated. A careful review of the chloride data shows that the source of the elevated chloride levels is unrelated to the ash ponds. The chloride exceedances are generally dispersed throughout the site at almost equivalent concentrations. U.S. Route 6 is adjacent to the north, upgradient of the ash ponds. Moreover, most of the exceedances of the chloride Class I groundwater standards occurred in the winter and spring sampling events.¹⁰ It is well documented that both shallow groundwater and surface water commonly exhibit higher concentrations of chloride in the spring due to rain and snow melt transporting dissolved road salt.¹¹ The distribution in the groundwater monitoring wells clearly indicates that the ash ponds are not contributing to the chloride exceedances.

In sum, the construction of the ponds with low permeability liners, the lack of elevated boron concentrations across the site and the inconsistent pattern of the constituent concentrations clearly do not support the Agency's contention that the ash ponds are the source of these constituents. The data are more consistent with the opposite conclusion, namely that the ash ponds are not the source of the alleged exceedances.

¹⁰ Seventeen of the twenty-three chloride exceedances occurred during the December and March sampling events.

¹¹ Mullaney, John R., *et al*, Chloride in Groundwater and Surface Water in Areas Underlain by the Glacial Aquifer System, Northern United States, Scientific Investigations Report 2009-5089, U.S. Geological Survey, Reston, VA. 2009. Table 5.

C. The Joliet #29 Ash Ponds Are Not Causing Groundwater Exceedances

Because the Illinois EPA failed to specify which of the provisions of Section 12 of the Act MWG allegedly violated, MWG has had to speculate to identify the potential Section 12 violations this response needs to address. As stated above, MWG objects to the vagueness of, and legally deficient notice provided by, the VN and reserves its right to respond further when and if the Agency properly identifies the provisions of Section 12 on which it is relying.

For purposes of this response, based upon the regulations cited by the Agency in the VN, MWG has assumed that the Agency's alleged violations of Section 12 are limited to Sections 12(a), which prohibits causing or allowing water pollution, and to Section 12(d), which prohibits causing or allowing the creation of a water pollution hazard. 415 ILCS 5/12(a), (d). Based on these assumptions regarding the substance of the Agency's alleged violations, MWG submits that it cannot show that the ash ponds at Joliet #29 caused or allowed water pollution or created a water pollution hazard.

Overall, the analytical results show that there is no relationship between the ash ponds and the groundwater exceedances. The alleged exceedances of the Class 1 groundwater standards are not consistent with the ash ponds being the source. Boron, a primary indicator for coal ash constituents, is elevated above the groundwater standards at only one out of eleven monitoring wells. The most telling and persuasive data is the complete absence of any boron exceedances from any of the monitoring wells located downgradient of the ash ponds. Certain of the alleged exceedances for other constituents only occur at monitoring wells that are upgradient wells to the ash ponds. Still other alleged exceedances, such as for chloride, are more likely explained by other causes, such as the use of road salt. The monitoring data plainly does not support the Agency's contention that the operation of the "ash impoundments" has resulted in the alleged violations.

To show a violation of Section 12(a) and 12(d), there must be a showing not only of the presence of a potential source of contamination, but also that it is in sufficient quantity and concentration to render the waters harmful. *Bliss v. Illinois EPA*, 138 Ill. App. 3d 699, 704 (1985) ("mere presence of a potential source of water pollutants on the land does not necessarily constitute a water pollution hazard"). In other words, there must be a causal link between the potential source and the water or groundwater. The groundwater monitoring data on which the Agency relies does not establish this essential causal link between the ash ponds and the groundwater. Therefore, the Agency has failed to meet its burden to prove that the ash ponds are the cause of the alleged exceedances of the groundwater standards as required to prove a violation of Sections 12(a) or 12(d) of the Act. 415 ILCS 5/12(a), (d).

The Agency also alleges violations of the groundwater quality regulations based on exceedances of the groundwater quality standards in 35 Ill. Admin. Code § 620.401. There is no violation here of Section 620.401. Section 620.401 solely provides the legal criteria that groundwater must meet the standards appropriate to the groundwater's class. It is a foundational regulation, allowing for different classes of groundwater to meet different groundwater

standards. It is not a prohibition regulation. There is no conduct prohibited by this section of the regulations in which MWG is alleged to have engaged. MWG cannot and did not violate Section 620.401.

The remaining alleged groundwater regulation violations, Sections 620.115, 620.301, 620.405, and 620.410 of the Board Regulations, are all based on the Agency's contention that MWG's operation of the ash ponds has caused the exceedances of the groundwater standards detected in the monitoring data. To sustain these allegations, the Agency must show that MWG caused a discharge of the subject constituents from ash ponds which in turn caused the exceedances of the groundwater standards.¹² The relevant facts and circumstances do not support either conclusion.

The use and condition of the ash ponds does not support a finding that they are releasing constituents to the groundwater. They are not disposal sites. They are only operated intermittently, when the wastewater line that transports ash to the permitted Lincoln Quarry Landfill is unavailable. The ash that accumulates in Ponds 1 and 2 is periodically removed, and so little ash accumulates in Pond 3 that it has not been necessary to remove it since MWG started operating the Joliet #29 Station. The linings in all of the ponds are constructed of materials that provide sufficient permeability, meeting or exceeding accepted regulatory guidance for solid waste landfills, to prevent the release of constituents. Finally, pursuant to the terms of the Joliet #29 Station's NPDES Permit, these ash ponds are part of the flow-through wastewater treatment process at the station. MWG's operation of the ash ponds has been carried out in accordance with the terms and conditions of the NPDES Permit. Under Section 12(f) of the Act, compliance with the terms and conditions of any permit issued under Section 39(b) of the Act is deemed compliance with this subsection.

Similarly, the groundwater data on which the Agency relies does not provide a sufficient scientific or technical evidentiary basis on which to conclude that the ash ponds are causing the alleged groundwater exceedances. The essential "causal link" between the ash ponds and the elevated constituents in the groundwater is missing. The groundwater downgradient of the ash ponds does not show the anticipated constituents associated with a release, or any other indication that the ash ponds are causing the exceedance. For certain parameters, such as chloride, the data clearly point to other, unrelated causes.

Because the ash ponds have not been shown to have caused a release of any contaminants that are causing the groundwater exceedances, the Agency's VN does not support its claims that MWG has violated Sections 620.405 or 620.301 of the Board regulations. Accordingly, MWG also has not violated Section 620.115 of the Board regulations.

¹² See *People of the State of Illinois v. ESG Watts, Inc.*, PCB 96-107 slip op. at p. 41 (February 5, 1998) (By finding the respondent caused a discharge of constituents into the groundwater causing a violation of the Class II Groundwater standards, the Board found the respondent also violated 35 IAC §§ 620.301 and 620.115)

III. Compliance Commitment Agreement

This VN should not have been issued. Given the absence of proof that the ash ponds are the cause of the alleged groundwater exceedances, the Agency's request for a Compliance Commitment Agreement (CCA) to address the ash ponds is an attempt to compel MWG to conduct unnecessary corrective action to resolve the alleged violations.

Moreover, with the pending federal regulatory process to enact regulations for the design and operation of ash ponds, it is prudent to await the outcome of the proposed federal regulations to determine whether any changes to the ash ponds construction or operation are required by those regulations. The Agency itself has previously advanced this position. In 2010, the Agency's Steven Nightingale testified before the Illinois Pollution Control Board that the Board should consider initiating a temporary moratorium on the closure of coal ash impoundments because of the U.S. EPA's intention to regulate them. (*See In the Matter of Ameren Ash Pond Closure Rules (Hutsonville Power Station): Proposed 35 Ill. Adm. Code Part 840.101 Through 840.152*, Docket R09-21 (October 7, 2010) at p. 64) On behalf of the Agency, Mr. Nightingale told the Board that if industry had to take action in the interim, it "could end up expending substantial money and resources only to find they are subject to additional and/or different closure requirements for those units." (*Id.*) The Agency's pursuit of this enforcement action, particularly given the deficiencies in its alleged evidence, also threatens to force MWG to take actions that may conflict with or otherwise differ from the requirements in the upcoming federal regulations.

As the hydrogeologic assessment of the Joliet #29 ash ponds showed, there is no threat to human health presented by the alleged exceedances of the groundwater standards. The hydrogeologic assessment investigated the presence of potable water sources within a 2,500-foot radius of the site. Seventeen groundwater wells are installed within 2,500 feet of the site. Two of the wells, which are owned by MWG, are located downgradient of the ash ponds. These wells are screened more than 1,500 feet deep, drawing water from a deep aquifer below the Maquoketa shale confining unit. The Maquoketa shale is an aquitard that separates the shallow groundwater in the unconsolidated units and the Silurian dolomite from the underlying aquifers.¹³ Both of the MWG wells are regularly sampled for potable water constituents, and the sampling results have consistently been in compliance with potable water regulations.¹⁴ Shallow groundwater at the site discharges to the Des Plaines River. The nearest downgradient water supply intake in the Des Plaines River, a headwater of the Illinois River, is located at Peoria, approximately 127 miles downstream. The Des Plaines River near the Joliet #29 Station is not used as a drinking water source. In the absence of any potable groundwater receptors or use, groundwater at the Joliet #29 site does not pose any risk to human health. Accordingly, awaiting the outcome of the federal regulatory proposal is clearly appropriate under these circumstances.

¹³ Visocky, Adrian P., *et al.* Geology, Hydrology, and Water Quality of the Cambrian and Ordovician System in Northern Illinois. Illinois State Geological Survey, Illinois State Water Survey. 1985. App. C.

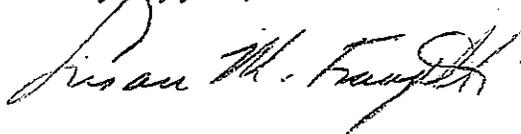
¹⁴ See previously submitted Hydrogeologic Assessment of Midwest Generation Electric Generation Stations: Will County Station, Waukegan Station, Joliet 29 Station, Crawford Station, Powerton Station.

Because MWG's preference is to cooperate with the Agency in this matter, MWG presents here a proposed CCA that should be acceptable based on the relevant facts and circumstances. The proposed CCA terms are as follows:

- A. The ash ponds will not be used as permanent disposal sites and ash will continue to be removed from the ponds on a periodic basis.
- B. The ash ponds will be maintained and operated in a manner which protects the integrity of the existing liners. During the removal of ash from the ponds, appropriate procedures will be followed to protect the integrity of the existing liners, including operating the ash removal equipment in a manner which minimizes the risk of any damage to the liner.
- C. During the ash removal process, visual inspections of the ponds will be conducted to identify any signs of a breach in the integrity of the pond liners. In the event that a breach of the pond liners is detected, MWG will notify the Agency and will implement the correction action plan.
- D. MWG will continue to monitor the groundwater through the existing eleven groundwater monitoring wells and report its findings to Illinois EPA. MWGen reserves the right to request the Agency's approval of a cessation of all or some of the monitoring requirements based on future monitoring results.
- E. MWG will continue to monitor the development of the Coal Combustion Residuals Proposed Rules, EPA-HQ-RCRA-2009-0640. When the final rule is issued, MWG will promptly notify Illinois EPA how it will comply with the new Federal Rules.

This letter constitutes MWG's response to and proposed CCA for the Violation Notice W-2012-00059. MWG also reserves the right to raise additional defenses and mitigation arguments as may be necessary, in defense of the allegations listed in the Violation Notice in the event of any future enforcement. We look forward to discussing the above information further at the soon to be scheduled meeting with the Agency's representatives. Please contact me to schedule a mutually convenient date for the meeting.

Very truly yours,



Susan M. Franzetti
Counsel for Midwest Generation, LLC

Enclosures

cc: Maria L. Race, Midwest Generation, LCC

Table 3
Groundwater Analytical Results - AMENDED JULY 2012
Joliet Station #29, Illinois
Midwest Generation
21253.034

PATRICK ENGINEERING	Sample Analysis Method	Groundwater Quality Standard (mg/L) Class 1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2
			12/6/10	3/23/11	6/14/11	9/14/11	12/7/11	3/15/12	12/6/10	3/23/11	6/14/11	9/14/11	12/7/11	3/15/12
Chemical Name			(mg/L)											
Antimony	Metals 6020	0.006	0.0043	NS	ND	NS	NS	NS	0.012	NS	0.0042	0.0032	ND	ND
Arsenic	Metals 6020	0.05	0.0011	NS	0.0014	NS	NS	NS	ND	NS	ND	ND	ND	ND
Barium	Metals 6020	2.0	0.13	NS	0.14	NS	NS	NS	0.0025	NS	0.081	0.1	0.12	0.12
Beryllium	Metals 6020	0.004	ND	NS	ND	NS	NS	NS	ND	NS	ND	ND	ND	ND
Cadmium	Metals 6020	0.005	ND	NS	ND	NS	NS	NS	ND	NS	ND	ND	ND	ND
Chromium	Metals 6020	0.1	ND	NS	ND	NS	NS	NS	ND	NS	ND	ND	ND	ND
Cobalt	Metals 6020	1.0	ND	NS	0.001	NS	NS	NS	ND	NS	ND	ND	ND	ND
Copper	Metals 6020	0.65	0.0032	NS	0.0025	NS	NS	NS	0.0032	NS	ND	ND	ND	ND
Cyanide	Dissolved 9014	0.2	ND	NS	ND	NS	NS	NS	ND	NS	ND	ND	ND	ND
Iron	Metals 6020	5.0	ND	NS	ND	NS	NS	NS	ND	NS	ND	ND	ND	ND
Lead	Metals 6020	0.0075	ND	NS	ND	NS	NS	NS	ND	NS	ND	ND	ND	ND
Manganese	Metals 6020	0.15	ND	NS	ND	NS	NS	NS	ND	NS	ND	ND	ND	ND
Mercury	Mercury 7470A	0.002	ND	NS	ND	NS	NS	NS	ND	NS	ND	ND	ND	ND
Nickel	Metals 6020	0.1	0.0034	NS	0.0029	NS	NS	NS	0.0033	NS	ND	0.0027	0.0023	ND
Selenium	Metals 6020	0.05	ND	NS	ND	NS	NS	NS	ND	NS	ND	0.0038	0.0055	0.0048
Silver	Metals 6020	0.05	ND	NS	ND	NS	NS	NS	ND	NS	ND	ND	ND	ND
Thallium	Metals 6020	0.002	ND	NS	ND	NS	NS	NS	ND	NS	ND	ND	ND	ND
Zinc	Metals 6020	5.0	ND	NS	ND	NS	NS	NS	ND	NS	ND	ND	ND	ND
Boron	Metals 6020	2	0.31	NS	0.29	NS	NS	NS	0.31	NS	0.35	0.44	0.74	0.22
Sulfate	Dissolved 9038	400	180	NS	81	NS	NS	NS	190	NS	67	110	150	110
Chloride	Dissolved 9251	200	140	NS	170	NS	NS	NS	140	NS	230	140	140	280
Nitrogen/Nitrate	Nitrogen By calc	10	1.9	NS	2.9	NS	NS	NS	3.1	NS	1.8	2.2	2.9	6.4
Total Dissolved Solids	Dissolved 2540C	1,200	590	NS	670	NS	NS	NS	600	NS	720	690	750	800
Fluoride	Dissolved 4500 FC	4	0.45	NS	0.43	NS	NS	NS	0.62	NS	0.58	0.54	0.51	0.53
Nitrogen/Nitrite	Dissolved 4500 NO2	NA	ND	NS	ND	NS	NS	NS	ND	NS	ND	ND	ND	ND
Nitrogen/Nitrate/Nitrite	Dissolved 4500 NO3	NA	1.9	NS	2.9	NS	NS	NS	3.1	NS	1.8	2.2	2.9	6.4

Notes:
*Class 1 Groundwater Standards from 35 IAC Part 620
Bold values show exceedences of 35 IAC Part 620
ND-non detect
NS- not sampled
mg/L- milligrams per liter

AMENDMENTS

- 0.0025** - Value amended from original Table 3 (May 11, 2012).
- 0.0032** - Value has not changed; font has been changed from bold to normal.
- 0.0033** - Value has not changed; font has been changed from normal to bold.

Table 3
 Groundwater Analytical Results - AMENDED JULY 2012
 Joliet Station #29, Illinois
 Midwest Generation
 21253.034

PATRICK ENGINEERING	Sample Analysis Method	Groundwater Quality Standard (mg/L)	MW-3	MW-5	MW-3	MW-3	MW-3	MW-3	MW-3	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4
			12/7/10	3/23/11	6/14/11	9/14/11	12/7/11	3/15/12	12/7/10	3/23/11	6/14/11	9/14/11	12/7/11	3/15/12	
Chemical Name		Class 1	(mg/L)	(mg/L)											
Antimony	Metals 6020	0.005	0.004	ND	ND	0.0065	0.016	0.013	ND	ND	ND	ND	0.0067	0.0057	
Arsenic	Metals 6020	0.05	ND	0.0011	ND	0.0012	0.0016	0.0014	ND	ND	ND	ND	0.0011	ND	
Barium	Metals 6020	2.0	0.089	0.085	0.092	0.081	0.084	0.081	0.065	0.067	0.059	0.05	0.069	0.07	
Beryllium	Metals 6020	0.004	ND												
Cadmium	Metals 6020	0.005	ND	ND	ND	ND	ND	0.00074	ND	ND	ND	ND	ND	ND	
Chromium	Metals 6020	0.1	ND												
Cobalt	Metals 6020	1.0	0.0013	0.0013	ND	0.0018	0.0028								
Copper	Metals 6020	0.65	ND	0.0026	0.0026										
Cyanide	Dissolved 9014	0.2	ND												
Iron	Metals 6020	5.0	ND												
Lead	Metals 6020	0.0075	ND												
Manganese	Metals 6020	0.15	0.1	0.048	ND	0.0076	0.008	0.0095	0.33	0.048	0.018	0.066	0.029	0.038	
Mercury	Mercury 7470A	0.002	ND												
Nickel	Metals 6020	0.1	0.011	0.0065	ND	0.0041	0.006	0.0046	0.0067	0.0037	ND	ND	0.0029	0.0037	
Selenium	Metals 6020	0.05	ND	0.005	ND	ND	ND	ND	0.0025	ND	ND	ND	ND	ND	
Silver	Metals 6020	0.05	ND	ND	ND	ND	0.00091	ND							
Thallium	Metals 6020	0.002	ND												
Zinc	Metals 6020	5.0	ND												
Boron	Metals 6020	2	0.24	0.36	0.46	0.24	0.23	0.26	0.46	0.37	0.38	0.25	0.34	0.29	
Sulfate	Dissolved 9038	400	120	160	120	120	160	190	300	140	84	74	170	210	
Chloride	Dissolved 9251	200	260	240	300	160	240	250	270	270	250	150	200	210	
Nitrogen/Nitrate	Nitrogen By calc	10	ND	1	2.1	1.1	0.79	ND	0.81	1.6	2.7	1.6	1.4	0.62	
Total Dissolved Solids	Dissolved 2540C	1,200	930	1,100	1,000	930	1,100	1,000	1,100	1,000	890	770	970	930	
Fluoride	Dissolved 4500 FC	4	0.43	0.4	0.41	0.31	0.4	0.39	0.49	0.38	0.44	0.37	0.44	0.41	
Nitrogen/Nitrite	Dissolved 4500 NO2	NA	ND												
Nitrogen/Nitrate/Nitrite	Dissolved 4500 NO3	NA	ND	1	2.1	1.1	0.79	ND	0.81	1.6	2.7	1.6	1.4	0.62	

Notes:
 *Class 1 Groundwater Standards from 35 IAC Part 620
 Bold values show exceedences of 35 IAC Part 620
 ND-non detect
 NS- not sampled
 mg/L- milligrams per liter

AMENDMENTS
 - Value amended from original Table 3 (May 11, 2012).
 - Value has not changed; font has been changed from bold to normal.
 - Value has not changed; font has been changed from normal to bold.

Table 3
Groundwater Analytical Results - AMENDED JULY 2012
Joliet Station #29, Illinois
Midwest Generation
21253.034

PATRICK ENGINEERING	Sample Analysis Method	Groundwater Quality Standard (mg/L)	MW-5	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6						
			12/7/10	3/23/11	6/14/11	9/14/11	12/7/11	3/15/12	12/7/10	3/23/11	6/14/11	9/14/11	12/7/11	3/15/12	
Chemical Name		Class I	(mg/L)	(mg/L)											
Antimony	Metals 6020	0.006	ND	ND	ND	ND	0.004	0.0035	ND	ND	ND	ND	ND	ND	ND
Arsenic	Metals 6020	0.05	ND	ND	ND	0.0011	0.0011	ND	ND	0.0015	ND	ND	0.0018	0.0016	ND
Barium	Metals 6020	2.0	0.061	0.092	0.053	0.053	0.062	0.069	0.075	0.12	0.082	0.094	0.11	0.13	ND
Beryllium	Metals 6020	0.004	ND	ND											
Cadmium	Metals 6020	0.005	ND	ND	ND	ND	ND	0.0016	ND	ND	ND	ND	ND	ND	ND
Chromium	Metals 6020	0.1	ND	ND											
Cobalt	Metals 6020	1.0	ND	0.0019	ND	ND	ND	ND	ND						
Copper	Metals 6020	0.65	ND	ND											
Cyanide	Dissolved 9014	0.2	ND	ND											
Iron	Metals 6020	5.0	ND	ND											
Lead	Metals 6020	0.0075	ND	ND											
Manganese	Metals 6020	0.15	0.0065	ND	ND	ND	ND	ND	0.14	0.033	ND	0.036	0.024	0.015	ND
Mercury	Mercury 7470A	0.002	ND	0.036	0.024	0.015	ND								
Nickel	Metals 6020	0.1	ND	ND	ND	0.0021	ND	ND	ND	0.0056	0.0025	ND	ND	ND	ND
Selenium	Metals 6020	0.05	ND	0.0072	ND	ND	0.005	ND	0.0029	0.0034	ND	ND	ND	ND	ND
Silver	Metals 6020	0.05	ND	0.00077	ND	ND	ND	0.0054	0.0051						
Thallium	Metals 6020	0.002	ND	ND											
Zinc	Metals 6020	5.0	ND	ND											
Boron	Metals 6020	2	0.42	0.52	0.47	0.57	0.49	0.54	0.32	0.44	0.32	0.27	0.3	0.25	ND
Sulfate	Dissolved 9038	400	110	160	100	140	140	190	130	270	140	140	130	110	ND
Chloride	Dissolved 9251	200	150	240	220	190	210	140	140	87	100	130	110	ND	ND
Nitrogen/Nitrate	Nitrogen By calc	10	ND	1.2	1.3	1.1	1.5	0.33	ND	1.3	0.91	0.31	0.36	ND	ND
Total Dissolved Solids	Dissolved 2540C	1,200	750	990	850	800	900	930	650	1,000	650	620	710	800	ND
Fluoride	Dissolved 4500 FC	4	0.4	0.34	0.39	0.28	0.34	0.32	0.4	0.36	0.44	0.29	0.44	0.36	ND
Nitrogen/Nitrite	Dissolved 4500 NO2	NA	ND	ND											
Nitrogen/Nitrate/Nitrite	Dissolved 4500 NO3	NA	ND	1.2	1.3	1.1	1.5	0.33	ND	1.3	0.91	0.31	0.36	ND	ND

Notes:
*Class I Groundwater Standards from 35 IAC Part 620
Bold values show exceedences of 35 IAC Part 620
ND- non detect
NS- not sampled
mg/L- milligrams per liter

AMENDMENTS

- 0.0011** - Value amended from original Table 3 (May 11, 2012).
- 0.0011** - Value has not changed; font has been changed from bold to normal.
- 0.0011** - Value has not changed; font has been changed from normal to bold.

Table 3
Groundwater Analytical Results - AMENDED JULY 2012
Joliet Station #29, Illinois
Midwest Generation
21253.034

PATRICK ENGINEERING	Sample Analysis Method	Groundwater Quality Standard (mg/L)	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8
			12/7/10	3/23/11	6/14/11	9/14/11	12/7/11	3/15/12	12/6/10	3/23/11	6/14/11	9/14/11	12/7/11	3/15/12
Chemical Name		Class 1	(mg/L)											
Antimony	Metals 6020	0.006	ND											
Arsenic	Metals 6020	0.05	0.001	ND	ND	ND	0.0014	0.001	ND	ND	ND	ND	ND	ND
Barium	Metals 6020	2.0	0.13	0.11	0.072	0.092	0.11	0.13	0.054	0.055	0.026	0.048	0.057	0.049
Beryllium	Metals 6020	0.004	ND											
Cadmium	Metals 6020	0.005	ND											
Chromium	Metals 6020	0.1	ND											
Cobalt	Metals 6020	1.0	ND	ND	ND	0.011	ND							
Copper	Metals 6020	0.65	ND	ND	ND	0.0025	ND							
Cyanide	Dissolved 9014	0.2	ND											
Iron	Metals 6020	5.0	ND	ND	ND	3.8	ND							
Lead	Metals 6020	0.0075	ND											
Manganese	Metals 6020	0.15	0.29	0.014	ND	0.08	0.0073	0.015	0.0051	0.0026	0.017	ND	ND	0.0042
Mercury	Mercury 7470A	0.002	ND											
Nickel	Metals 6020	0.1	0.0045	ND	ND	0.014	ND	ND	0.0025	ND	ND	0.012	ND	ND
Selenium	Metals 6020	0.05	ND											
Silver	Metals 6020	0.05	ND											
Thallium	Metals 6020	0.002	ND											
Zinc	Metals 6020	5.0	ND											
Boron	Metals 6020	2	0.51	0.39	0.25	0.29	0.35	0.3	0.29	0.16	0.12	0.2	0.16	0.13
Sulfate	Dissolved 9038	400	250	120	85	110	160	140	210	87	52	120	170	130
Chloride	Dissolved 9251	200	430	320	140	99	140	300	130	350	150	79	120	410
Nitrogen/Nitrate	Nitrogen By calc	10	ND	1.2	0.76	0.27	0.6	ND	0.33	2.2	1.9	0.95	0.86	ND
Total Dissolved Solids	Dissolved 2540C	1,200	1,200	970	580	650	780	870	670	990	580	690	800	1000
Fluoride	Dissolved 4500 FC	4	0.36	0.31	0.35	0.27	0.35	0.31	0.51	0.36	0.45	0.25	0.31	0.38
Nitrogen/Nitrite	Dissolved 4500 NO2	NA	ND											
Nitrogen/Nitrate/Nitrite	Dissolved 4500 NO3	NA	ND	1.2	0.76	0.27	0.6	ND	0.33	2.2	1.9	0.95	0.86	ND

Notes:

*Class 1 Groundwater Standards from 35 IAC Part 620

Bold values show exceedences of 35 IAC Part 620

ND-non detect

NS- not sampled

mg/L- milligrams per liter

AMENDMENTS

0.054 - Value amended from original Table 3 (May 11, 2012).

0.0014 - Value has not changed; font has been changed from bold to normal.

300 - Value has not changed; font has been changed from normal to bold.

Table 3
Groundwater Analytical Results - AMENDED JULY 2012
Joliet Station #29, Illinois
Midwest Generation
21253.034

PATRICK ENGINEERING	Sample Analysis Method	Groundwater Quality Standard (Class I)	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10
			(mg/L) 12/6/10	(mg/L) 3/23/11	(mg/L) 6/14/11	(mg/L) 9/14/11	(mg/L) 12/7/11	(mg/L) 3/15/12	(mg/L) 12/6/10	(mg/L) 3/23/11	(mg/L) 6/14/11	(mg/L) 9/14/11	(mg/L) 12/7/11	(mg/L) 3/15/12
Chemical Name														
Antimony	Metals 6020	0.005	ND											
Arsenic	Metals 6020	0.05	ND	0.0012	ND									
Barium	Metals 6020	2.0	0.031	0.029	0.032	0.029	0.03	0.021	0.05	0.051	0.039	0.039	0.036	0.04
Beryllium	Metals 6020	0.004	ND											
Cadmium	Metals 6020	0.005	ND	ND	ND	ND	ND	0.00059	ND	ND	ND	ND	ND	ND
Chromium	Metals 6020	0.1	ND											
Cobalt	Metals 6020	1.0	0.0047	0.0034	0.0062	0.011	0.0075	0.0021	ND	ND	ND	ND	ND	ND
Copper	Metals 6020	0.65	ND	ND	ND	0.0026	ND							
Cyanide	Dissolved 9014	0.2	ND											
Iron	Metals 6020	5.0	ND	0.18	7.3	3.8	1.5	5.5	ND	ND	ND	ND	ND	ND
Lead	Metals 6020	0.0075	ND											
Manganese	Metals 6020	0.15	1.1	1.6	0.95	0.83	0.66	1.3	0.12	0.0076	ND	ND	ND	ND
Mercury	Mercury 7470A	0.002	ND											
Nickel	Metals 6020	0.1	0.0094	0.0072	0.013	0.014	0.011	0.0054	0.0052	0.0029	ND	0.0087	0.0024	ND
Selenium	Metals 6020	0.05	ND											
Silver	Metals 6020	0.05	ND											
Thallium	Metals 6020	0.002	ND											
Zinc	Metals 6020	5.0	ND											
Boron	Metals 6020	2	0.36	0.32	0.29	0.35	0.31	0.38	0.5	0.54	0.54	0.41	0.52	0.52
Sulfate	Dissolved 9038	400	1,600	1,100	580	750	1,300	1,600	130	130	130	89	180	190
Chloride	Dissolved 9251	200	140	230	290	190	190	200	300	300	7.1	170	180	180
Nitrogen/Nitrate	Nitrogen By calc	10	ND	ND	0.97	0.36	0.22	ND	0.39	2.3	2.7	2.6	1.4	ND
Total Dissolved Solids	Dissolved 2540C	1,200	2,600	2,400	1,500	1,700	2,400	2,600	860	1,100	980	730	890	890
Fluoride	Dissolved 4500 FC	4	0.61	0.52	0.47	0.39	0.5	0.45	0.43	0.39	0.42	0.41	0.45	0.41
Nitrogen/Nitrite	Dissolved 4500 NO2	NA	ND											
Nitrogen/Nitrate/Nitrite	Dissolved 4500 NO3	NA	ND	ND	0.97	0.36	0.22	ND	0.39	2.3	2.7	2.6	1.4	ND

Notes:

*Class I Groundwater Standards from 35 IAC Part 620

Bold values show exceedences of 35 IAC Part 620

ND-non detect

NS- not sampled

mg/L- milligrams per liter

AMENDMENTS

Value - Value amended from original Table 3 (May 11, 2012).

Value - Value has not changed; font has been changed from bold to normal.

Value - Value has not changed; font has been changed from normal to bold.

Table 3
 Groundwater Analytical Results - AMENDED JULY 2012
 Joliet Station #29, Illinois
 Midwest Generation
 21253.034

Chemical Name	Sample Analysis Method	Groundwater Quality Standard (mg/L)	MW-11 (mg/L)		MW-11 (mg/L)		MW-11 (mg/L)		MW-11 (mg/L)	
			12/23/11	7/23/11	6/24/11	5/9/11	12/7/11	11/12/11		
Antimony	Metals 6020	0.006	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	Metals 6020	0.05	0.0013	0.0016	0.0016	0.0016	0.0019	0.0017	0.0017	0.0017
Barium	Metals 6020	2.0	0.064	0.076	0.081	0.054	0.057	0.067	0.067	0.067
Beryllium	Metals 6020	0.004	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium	Metals 6020	0.005	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	Metals 6020	0.1	ND	ND	ND	ND	ND	ND	ND	ND
Cobalt	Metals 6020	1.0	ND	ND	ND	ND	ND	ND	ND	ND
Copper	Metals 6020	0.65	ND	ND	ND	ND	ND	ND	ND	ND
Cyanide	Dissolved 9014	0.2	ND	ND	ND	ND	ND	ND	ND	ND
Iron	Metals 6020	5.0	ND	ND	ND	ND	ND	ND	ND	ND
Lead	Metals 6020	0.0075	ND	ND	ND	ND	ND	ND	ND	ND
Manganese	Metals 6020	0.15	0.052	0.047	0.053	0.053	0.047	0.047	0.047	0.047
Mercury	Mercury 7470A	0.002	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	Metals 6020	0.1	0.0022	ND	ND	ND	ND	ND	ND	ND
Selenium	Metals 6020	0.05	ND	0.0054	ND	0.0026	0.0033	0.0043	0.0043	0.0043
Silver	Metals 6020	0.002	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	Metals 6020	5.0	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	Metals 6020	2	0.47	2.6	2.2	1.1	1.2	1.4	1.4	1.4
Boron	Metals 6020	400	140	150	110	110	160	140	140	140
Sulfate	Dissolved 9038	400	140	150	110	110	160	140	140	140
Chloride	Dissolved 9251	200	270	270	280	85	140	240	240	240
Nitrogen/Nitrate	Nitrogen By calc	10	0.39	1.1	0.92	0.31	0.6	0.3	0.3	0.3
Total Dissolved Solids	Dissolved 2540C	1,200	770	1,000	710	390	790	850	850	850
Fluoride	Dissolved 4500 FC	4	0.34	0.31	0.36	0.32	0.31	0.31	0.31	0.31
Nitrogen/Nitrite	Dissolved 4500 NO2	NA	ND	ND	ND	ND	ND	ND	ND	ND
Nitrogen/Nitrate/Nitrite	Dissolved 4500 NO3	NA	0.39	1.1	0.92	0.31	0.6	0.3	0.3	0.3

Notes:
 *Class I Groundwater Standards from 35 IAC Part 620
 Bold values show exceedences of 35 IAC Part 620
 ND-not detect
 NS - not sampled
 mg/L - milligrams per liter

AMENDMENTS
 - Value amended from original Table 3 (May 11, 2012).
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 - Value has not changed; font has been changed from normal to bold.

Table 1
 Field Parameter Data
 Joliet #29 Station, Joliet, Illinois
 Midwest Generation
 21253.034

Field Parameter Data - Joliet #29 Station								
Monitoring Well	Date	Time	Temperature (°C)	Conductivity (µm/cm²)	Turbidity (NTU)	pH	DO (mg/L)	ORP (mV)
MW-01	3/23/2011	--	--	--	--	--	--	--
MW-01	6/14/2011	12:08	14.71	1.36	13.26	7.80	6.61	190.0
	6/14/2011	12:10	14.26	1.33	13.33	7.42	3.95	186.1
	6/14/2011	12:12	14.02	1.31	13.12	7.35	3.89	201.1
	6/14/2011	12:14	13.96	1.29	13.29	7.32	3.88	208.8
	6/14/2011	12:16	13.83	1.29	13.24	7.28	3.89	210.7
	6/14/2011	12:18	13.92	1.28	13.11	7.25	4.19	210.6
MW-01	9/14/2011	--	--	--	--	--	--	--
MW-01	12/7/2011	--	--	--	--	--	--	--
MW-01	3/15/2012	--	--	--	--	--	--	--
MW-02	3/23/2011	--	--	--	--	--	--	--
MW-02	6/14/2011	11:32	16.11	1.35	8.31	7.57	6.75	157.7
	6/14/2011	11:34	15.75	1.31	8.40	7.35	6.44	187.9
	6/14/2011	11:36	15.55	1.30	8.26	7.25	6.45	208.1
	6/14/2011	11:38	15.68	1.30	8.17	7.25	6.42	218.0
	6/14/2011	11:40	15.63	1.30	8.12	7.29	6.43	222.6
	6/14/2011	11:42	15.57	1.30	8.99	7.30	6.45	2227.3
MW-02	9/14/2011	11:20	18.87	0.97	9.24	7.41	5.25	-38.0
	9/14/2011	11:22	18.83	0.98	5.90	7.39	5.20	-36.0
	9/14/2011	11:24	18.83	0.98	3.38	7.39	5.25	-37.0
	9/14/2011	11:26	18.81	0.98	2.37	7.37	5.20	-36.0
	9/14/2011	11:28	18.78	0.98	3.51	7.38	5.19	-37.0
	9/14/2011	11:30	18.72	0.98	2.53	7.37	5.21	-36.0
MW-02	12/7/2011	11:16	12.81	0.91	111.70	7.42	6.11	55.0
	12/7/2011	11:18	13.06	0.91	144.10	7.41	5.76	63.0
	12/7/2011	11:20	13.41	0.91	240.50	7.38	5.74	69.0
	12/7/2011	11:22	13.30	0.91	32.78	7.39	5.85	74.0
	12/7/2011	11:24	13.11	0.90	30.67	7.37	5.86	78.0
	12/7/2011	11:26	13.04	0.90	27.41	7.37	5.91	81.0
MW-02	3/15/2012	--	--	--	--	--	--	--
MW-03	3/23/2011	12:30	12.73	1.76	1283.80	7.26	4.73	179.1
MW-03	6/14/2011	9:50	13.04	1.74	1534.29	7.41	7.78	223.5
MW-03	9/14/2011	9:54	11.90	1.15	1884.00	7.37	6.03	-51.0
MW-03	12/7/2011	9:48	10.94	1.19	1276.00	7.48	6.07	145.0
MW-03	3/15/2012	10:48	13.73	1.21	906.90	7.34	6.07	193.0
MW-04	3/23/2011	11:55	12.13	1.76	1277.40	7.15	6.80	196.1
MW-04	6/14/2011	9:20	12.59	1.50	1104.60	7.48	8.20	217.5
MW-04	9/14/2011	9:22	11.78	0.94	2892.00	7.42	7.17	-43.0
MW-04	12/7/2011	9:09	9.67	1.04	1131.00	7.56	6.95	135.0
MW-04	3/15/2012	10:14	12.52	1.06	2549.00	7.40	6.95	177.0
MW-05	3/23/2011	13:05	13.41	1.65	514.90	7.19	6.96	197.8
MW-05	6/14/2011	8:03	13.37	1.38	707.90	7.44	7.16	210.0
MW-05	9/14/2011	8:18	12.15	0.92	125.20	7.25	6.43	-26.0
MW-05	12/7/2011	8:08	11.23	1.02	862.10	7.44	6.07	125.0
MW-05	3/15/2012	7:45	13.52	1.19	1081.00	7.30	6.24	228.0
MW-06	3/23/2011	13:38	12.90	1.65	1284.40	7.51	7.44	183.7
MW-06	6/14/2011	13:25	14.26	1.05	431.20	7.71	6.82	203.8
MW-06	9/14/2011	12:33	12.73	0.77	2785.00	7.53	6.74	-65.0
MW-06	12/7/2011	12:40	13.70	0.87	1700.00	7.71	7.05	113.0
MW-06	3/15/2012	11:20	14.45	1.06	2353.00	7.57	7.47	210.0

Table 1
 Field Parameter Data
 Joliet #29 Station, Joliet, Illinois
 Midwest Generation
 21253.034

Field Parameter Data - Joliet #29 Station								
Monitoring Well	Date	Time	Temperature (°C)	Conductivity (ms/cm)	Turbidity (NTU)	pH	DO (mg/L)	ORP (mV)
MW-07	3/23/2011	14:10	13.58	1.78	1292.20	7.50	7.02	183.2
MW-07	6/14/2011	13:50	12.92	1.02	1892.35	7.61	8.10	202.8
MW-07	9/14/2011	13:04	12.50	0.78	15.33	7.65	7.70	-82.0
MW-07	12/7/2011	13:08	13.07	0.89	1813.00	7.63	6.74	113.0
MW-07	3/15/2012	11:43	15.40	1.18	1164.00	7.53	7.23	175.0
MW-08	3/23/2011	9:55	13.06	1.80	1287.50	7.29	7.82	192.6
MW-08	6/14/2011	12:50	13.15	0.99	437.99	7.70	8.00	196.0
MW-08	9/14/2011	12:03	12.20	0.80	1485.00	7.32	6.06	-47.0
MW-08	12/7/2011	12:10	12.71	0.88	861.90	7.38	6.57	119.0
MW-08	3/15/2012	9:36	14.64	1.40	1275.00	7.49	7.68	130.0
MW-09	3/23/2011	11:10	12.78	3.30	214.00	7.19	7.49	102.2
MW-09	6/14/2011	10:55	16.53	2.57	14.22	7.15	1.12	-40.6
	6/14/2011	10:57	16.04	2.39	14.28	7.07	0.51	-42.3
	6/14/2011	10:59	16.00	2.32	14.14	7.03	0.49	-42.3
	6/14/2011	11:01	15.76	2.30	14.09	7.01	0.49	-29.3
	6/14/2011	11:03	15.78	2.28	13.73	7.01	0.47	-35.7
	6/14/2011	11:05	15.68	2.25	13.28	7.01	0.49	-43.5
MW-09	9/14/2011	10:42	16.36	1.99	46.97	6.87	0.34	-103.0
	9/14/2011	10:44	16.15	1.96	41.89	6.87	0.34	-108.0
	9/14/2011	10:46	16.06	1.94	46.33	6.87	0.34	-111.0
	9/14/2011	10:48	15.99	1.92	34.58	6.89	0.34	-111.0
	9/14/2011	10:50	15.96	1.90	40.02	6.89	0.34	-113.0
	9/14/2011	10:52	15.90	1.88	40.23	6.90	0.33	-114.0
MW-09	12/7/2011	10:30	11.66	1.62	200.50	7.29	1.14	-52.0
	12/7/2011	10:32	11.77	1.61	47.44	7.22	1.61	-43.0
	12/7/2011	10:34	12.35	1.60	96.37	7.21	0.38	-40.0
	12/7/2011	10:36	10.54	1.62	44.06	7.17	1.09	-36.0
	12/7/2011	10:38	11.49	1.58	36.28	7.16	0.72	-38.0
	12/7/2011	10:40	11.94	1.54	76.67	7.19	0.43	-40.0
MW-09	3/15/2012	8:45	14.29	2.31	1116.00	6.86	2.22	2.0
MW-10	3/23/2011	9:20	12.40	1.88	23.50	7.20	7.18	191.6
MW-10	6/14/2011	8:40	12.05	1.58	2312.96	7.40	8.70	210.0
MW-10	9/14/2011	8:48	11.23	0.98	2892.00	7.34	7.42	-37.0
MW-10	12/7/2011	8:40	11.26	0.99	1421.00	7.51	7.12	143.0
MW-10	3/15/2012	8:14	13.08	1.04	1362.00	7.35	7.08	210.0
MW-11	3/23/2011	8:46	13.49	1.69	1293.70	7.23	7.23	194.3
MW-11	6/14/2011	9:31	11.69	1.14	600.28	7.60	8.65	200.8
MW-11	9/14/2011	7:43	12.18	0.79	2426.00	7.38	6.28	-31.0
MW-11	12/7/2011	7:34	13.15	0.92	1751.00	7.46	6.74	136.0
MW-11	3/15/2012	7:08	14.22	1.12	1459.00	7.38	7.37	208.0

Notes:

- °C degrees Celsius
- ms/cm Microsiemens/Centimeters
- NTU Nephelometric Turbidity Units
- mg/L milligrams/Liter
- mV millivolts