

**BEFORE THE ILLINOIS POLLUTION CONTROL BOARD**

In the Matter of:	)	
SIERRA CLUB, ENVIRONMENTAL	)	
LAW AND POLICY CENTER,	)	
PRAIRIE RIVERS NETWORK, and	)	
CITIZENS AGAINST RUINING THE	)	PCB No-2013-015
ENVIRONMENT	)	(Enforcement – Water)
	)	
Complainants,	)	
	)	
v.	)	
	)	
MIDWEST GENERATION, LLC,	)	
	)	
Respondent.	)	

**MIDWEST GENERATION, LLC’S RESPONSE TO COMPLAINANTS’ FOURTH SET OF DOCUMENT REQUESTS, SECOND SET OF INTERROGATORIES, AND SECOND SET OF REQUESTS FOR ADMISSION TO RESPONDENTS**

Respondent, Midwest Generation, LLC, (“Midwest Generation”), through its undersigned attorneys, responds to Complainants’ Fourth Set of Document Requests, Second Set of Interrogatories, and Second Set of Requests for Admission, (“Requests”), as follows:

**GENERAL OBJECTIONS**

Each of the Responses is made subject to and incorporates by reference the objections made in Midwest Generation’s Responses to Complainants’ First Set of Interrogatories, Requests for Documents and Request for Admission provided on September 2, 2014. Additionally, Midwest Generation makes the following objections:

1. Midwest Generation objects to the “Coal ash” definition to the extent that it includes other waste streams resulting from the operation of pollution controls.
  
2. Midwest Generation objects to the “Coal ash units” definition to the extent that it includes areas in which coal ash is not purposely directed to or placed on and to the extent it includes *de minimis* collections of coal ash due to the operations of the Station.

3. Midwest Generation objects to the “Joliet 29” definition to the extent it states that the Station is located in Kendall County.

4. Midwest Generation objects to the “Uppermost aquifer” definition as vague, ambiguous and capable of varying interpretations. Additionally, Midwest Generation objects to the definition to the extent it depends upon a coal ash unit to identify any aquifer’s location.

5. Midwest Generation objects to Instruction No. 6 as overly broad and unduly burdensome.

6. Midwest Generation objects to the Number of Requests to Admit as in excess of the number of requests allowed under the Ill. Sup. Ct. Rule 216(f) and the additional requests for admission agreed to in the Agreed Motion to Extend the Discovery Schedule and Modify the Discovery Order filed with the Board on February 4, 2015. Illinois Supreme Court Rule 216(f) allows each party to issue a maximum of 30 requests for admission, and each subpart counts as a separate request. Ill. Sup. Ct. Rule 216(f). On June 16, 2014, Complainants submitted to Midwest Generation three Requests for Admission of Genuineness of Documents, attaching fifty-eight documents. Each of the fifty eight documents is a subpart of the request for admission. On February 4, 2015, the parties agreed that each may propound 20 additional requests for admission. On March 2, 2015, Complainants propounded a total of forty requests to admit to Complainants in their Second and Third Set of Requests for Admission. Because the requests to admit are in excess of the agreed extension and the limits under Ill. Sup. Ct. Rule 216(f), Midwest Generation has answered twenty of the forty propounded requests for admission.

7. Respondent reserves the right to object to the admissibility of any of the documents produced pursuant to the Responses, in whole or in part, at hearing in this action on any grounds including but not limited to materiality, relevance, confidential business information and privilege.

### **REQUEST FOR PRODUCTION OF DOCUMENTS**

1. Provide any Documents related to each refusal to admit any requests for admission herein.

**ANSWER:**

Without waiving its objections, responsive documents include Bates #MWG13-15\_18824-19428, and Bates #MWG13-15\_4-9, 69, 73, 77, 81, 85, 89, 93, 97 and 101.

2. Provide all Documents that evidence or relate to your Interrogatory responses.

**ANSWER:**

Midwest Generation incorporates and includes the objections stated in response to each Interrogatory Request. Without waiving its objections, responsive documents are set forth in the interrogatory answers and have already been provided or are attached.

3. Provide all maps that accurately show which portions of the Joliet 29 site are owned or operated by MWG.

**ANSWER:**

Without waiving its objections, responsive documents are available for review; see Bates No. MWG13-15\_48403 - 48414.

4. Provide all maps that accurately show which portions of the Powerton site are owned or operated by MWG.

**ANSWER:**

Without waiving its objections, responsive documents are available for review; see Bates No. MWG13-15\_4815 - 48426.

5. Provide all maps that accurately show which portions of the Waukegan site are owned by MWG.

**ANSWER:**

Without waiving its objections, responsive documents are available for review; see Bates No. MWG13-15\_48427 - 48432.

6. Provide all maps that accurately show which portions of the Will County site are owned by MWG.

**ANSWER:**

Without waiving its objections, responsive documents are available for review; see Bates No. MWG13-15\_48433-48438.

7. Provide all Documents pertaining to boron or borax use at the Tannery site.

**ANSWER:**

Midwest Generation objects to Document Request No. 7 as overly broad and unduly burdensome and seeks documents or information not within Midwest Generation's possession, custody or control. Without waiving its objections, responsive and non-privileged documents currently in Midwest Generation's control include Bates MWG13-15\_43754-43862.

8. Provide all Documents pertaining to boron or borax use at the General Boiler site.

**ANSWER:**

See Answer to Document Request No. 7, incorporated by reference. .

9. Provide all Documents related to groundwater elevations at Waukegan Groundwater Monitoring Wells MW-8 and MW-9.

**ANSWER:**

Without waiving its objections, responsive documents are available for review; see Bates MWG13-15\_48439.

10. Provide all Documents related to groundwater elevation at all monitoring wells at the former General Boiler site, including but not limited to monitoring wells GB-1 through GB-7.

**ANSWER:**

Midwest Generation objects to Document Request No. 10 as overly broad and unduly burdensome and seeks documents and information not within Midwest Generation's possession, custody or control. Without waiving its objections, Midwest Generation states that no responsive documents within its custody or control are currently available.

11. Provide all Documents related to groundwater elevation at monitoring wells 1 through 9 at the Tannery site.

**ANSWER:**

Midwest Generation objects to Document Request No. 11 as overly broad and unduly burdensome and seeks documents and information not within Midwest Generation's possession, custody or control. Without waiving its objections, Midwest Generation states that responsive documents were previously provided and include Bates #MWG13-15\_46211-MWG13-15\_48402.

12. Provide all groundwater quality data from all monitoring wells at the former General Boiler site, including but not limited to monitoring wells GB-1 through GB-7.

**ANSWER:**

See Answer to Document Request No. 10, incorporated by reference.

13. Provide all groundwater quality data from monitoring wells 1 through 9 at the Tannery site.

**ANSWER:**

See Answer to Document Request No. 11, incorporated by reference.

14. Provide all Documents evidencing or related to the contents of soil borings taken when ELUC wells MW-10, MW-11, MW-12, and MW-14 were drilled, including but not limited to boring logs.

**ANSWER:**

Midwest Generation objects to Document Request No. 14 as vague as to the “contents of soil borings.” Additionally, see Answer to Document Request No. 10, incorporated by reference.

15. Provide all Documents evidencing or related to the contents of soil borings taken when groundwater monitoring wells 1 through 14 at the Tannery site were drilled, including but not limited to boring logs.

**ANSWER:**

Midwest Generation objects to Document Request No. 15 as vague as to the “contents of soil borings.” Additionally, see Answer to Document Request No. 11, incorporated by reference.

16. Provide all Documents evidencing or related to the contents of soil borings taken when all monitoring wells at the former General Boiler site, including but limited to monitoring wells GB-1 through GB-7, were drilled, including but not limited to boring logs.

**ANSWER:**

See Answer to Document Request No. 14, incorporated by reference.

17. Provide any and all groundwater quality data from the first quarter of 2015 from all groundwater monitoring wells at Joliet 29, Will County, Powerton, and Waukegan, including but not limited to all Waukegan Groundwater Monitoring Wells, all monitoring wells at the Tannery Site, all monitoring wells at the General Boiler site, and ELUC wells MW-10, MW-11, MW-12, MW-14 and MW-15.

**ANSWER:**

Midwest Generation objects to Document Request No. 17 as overly broad and unduly burdensome and seeks documents and information not within Midwest Generation’s possession, custody or control. Without waiving its objections, Midwest Generation states that responsive documents are not currently available.

18. Provide a complete Phase II Environmental Site Assessment for Joliet 29, including all boring logs.

**ANSWER:**

Without waiving its objections, Midwest Generation states that responsive documents are included at Bates No. MWG13-15\_48440-48492.

**INTERROGATORIES**

1. Identify any and all methods, other than visual inspection, that MWG uses to inspect ash pond liners for Damage, weakness or leaks at Joliet 29, Will County, Waukegan and Powerton, and state:
  - a. How each method of inspection identifies weakness or damage to liners;
  - b. When the use of each method of inspection began at each pond; and
  - c. The frequency with which each method of inspection is used at each pond.

**ANSWER:**

Midwest Generation objects to Interrogatory No. 1 because it is overly broad, unduly burdensome, and seeks material covered by the work product and attorney-client privilege.

Without waiving its objections, Midwest Generation states that the other method to inspect the liners for damage or leaks is the electrical leak location method. The electrical leak location method detects paths through the geomembrane caused by water or moisture in the leaks. The electrical leak location method has been used on HDPE liners since mid-2000s and takes place when HDPE lining is installed at impoundments.

2. State whether MWG has ever monitored groundwater at Joliet 29, Waukegan, Will County and Powerton aside from the monitoring it currently performs at groundwater monitoring wells installed on or after 2010. If MWG has conducted such monitoring, state:
  - a. The specific locations at each site where groundwater was monitored; and
  - b. Over what time period that monitoring took place.

**ANSWER:**

Midwest Generation objects to Interrogatory No. 2 as overly broad and unduly burdensome and seeks documents or information not within Midwest Generation's possession, custody or control. Midwest Generation further objects to Interrogatory No. 2 to the extent it seeks materials that are

not relevant to the subject matter involved in the pending action or not reasonably calculated to lead to relevant, discoverable evidence. Finally, Midwest Generation further objects to this interrogatory as overly broad and limits its answer to monitoring for coal ash constituents. Without waiving its objections, Midwest Generation states that it provided all relevant groundwater monitoring results to Complainants in response to Document Request No. 8 of Complainants First Set of Document Requests, including Bates Nos. 2,459-6,822, 34716-36799, 43695-43862, 43871-44121, 44983-45769, and the documents provided at the offices of Nijman Franzetti. Additionally, see Midwest Generation response to Interrogatory No. 8 in Complainant's first Set of Interrogatories.

3. State whether MWG has ever removed Coal ash from any part of the Powerton site aside from the active ash ponds and, if MWG has done so, identify where the Coal ash were removed from and when that removal took place.

**ANSWER:**

Midwest Generation objects to Interrogatory No. 3 as overly broad and unduly burdensome and seeks documents or information not within Midwest Generation's possession, custody or control. Additionally, Midwest Generation objects to this interrogatory as requesting information already provided in the document requests and in the deposition of Mr. Mark Kelly. Without waiving its objections, Midwest Generation states that coal ash is removed from the silos and various ducts at the Station work during cleanouts. The coal ash is temporarily stored in the metal cleaning basin, until Midwest Generation removes the coal ash and hauls it offsite. The coal ash is removed from the metal cleaning basin approximately two to three times per year. Also, historically the limestone basin and areas around the coal piles were used for temporary placement of coal ash before off site removal. The coal ash was removed from these locations on a periodic basis before 2012.

**REQUESTS FOR ADMISSION**

1. Admit that Ash Landfill SW is within the current property boundaries of the portion of the Joliet 29 site that is operated by MWG.

**ANSWER:**

Midwest Generation objects to this request as calling for a legal conclusion. Without waiving its objections, Midwest Generation admits that it leases the Joliet 29 Station which includes the area defined here as the Ash Landfill SW.

2. Admit that Ash Landfill NE is within the current property boundaries of the portion of the Joliet 29 site that is operated by MWG.

**ANSWER:**

Midwest Generation objects to this request as calling for a legal conclusion. Without waiving its objections, Midwest Generation admits that it leases the Joliet 29 Station which includes the area defined here as the Ash Landfill NE.

3. Admit that, prior to approval of the Joliet 29 Groundwater Monitoring Zone (“GMZ”), all of the groundwater underlying Joliet 29 was classified as Class I: Potable Resource Groundwater pursuant to 35 Ill. Adm. Code Part 620.

**ANSWER:**

Midwest Generation objects to this request as calling for a legal conclusion. Midwest Generation further objects to this request pursuant to its sixth General Objection set forth above, that this request is in excess of the number of requests allowed under Ill. Sup. Ct. Rule 216(f) and the additional requests for admission agreed to in the Agreed Motion to Extend the Discovery Schedule and Modify the Discovery Order filed with the Board on February 4, 2015.

4. Admit that, prior to approval of the Will County Groundwater Monitoring Zone (“GMZ”), all of the groundwater underlying Will County was classified as Class I: Potable Resource Groundwater pursuant to 35 Ill. Adm. Code Part 620.

**ANSWER:**

See Answer to Request No. 3, incorporated by reference.

5. Admit that, prior to approval of the Powerton Groundwater Monitoring Zone (“GMZ”), all of the groundwater underlying Powerton was classified as Class I: Potable Resource Groundwater pursuant to 35 Ill. Adm. Code Part 620.

**ANSWER:**

See Answer to Request No. 3, incorporated by reference.

6. Admit that the groundwater underlying Waukegan is classified as Class I: Potable Resource Groundwater pursuant to 35 Ill. Adm. Code Part 620.

**ANSWER:**

See Answer to Request No. 3, incorporated by reference.

7. Admit that Ash Landfill NE at Joliet 29 is not lined.

**ANSWER:**

Midwest Generation objects to this request on the grounds that the term “lined” is vague, ambiguous, and capable of varying interpretations. Subject to its objection, Midwest Generation states that after reasonable inquiry, the information known or readily obtainable is insufficient to allow Midwest Generation to admit or deny the request.

8. Admit that Ash Landfill NE has not been lined or relined since MWG began operating Joliet 29.

**ANSWER:**

Midwest Generation objects to this request on the grounds that the terms “lined” and “relined” are vague, ambiguous, and capable of varying interpretations. Midwest Generation further objects to this request pursuant to its sixth General Objection set forth above, that this request is in excess of the number of requests allowed under Ill. Sup. Ct. Rule 216(f) and the

additional requests for admission agreed to in the Agreed Motion to Extend the Discovery Schedule and Modify the Discovery Order filed with the Board on February 4, 2015.

9. Admit that there is Coal ash in the ground within the boundary of the Ash Landfill NE at Joliet 29.

**ANSWER:**

Midwest Generation objects to this request on the grounds that the phrase “Coal ash in the ground” is vague, ambiguous, and capable of varying interpretations. Subject to its objection, Midwest Generation states that after reasonable inquiry, the information known or readily obtainable is insufficient to allow Midwest Generation to admit or deny the request.

10. Admit that MWG has not removed Coal ash from Ash Landfill NE at Joliet 29.

**ANSWER:**

See Answer to Request No. 8, incorporated by reference.

11. Admit that there is no impermeable cap over Ash Landfill NE at Joliet 29.

**ANSWER:**

Midwest Generation objects to this request on the grounds that the term “impermeable cap” is vague, ambiguous, and capable of varying interpretations. Subject to its objection, Midwest Generation admits the request.

12. Admit that Ash Landfill SW at Joliet 29 is not lined.

**ANSWER:**

Midwest Generation objects to this request on the grounds that the term “lined” is vague, ambiguous, and capable of varying interpretations. Subject to its objection, Midwest Generation

states that after reasonable inquiry, the information known or readily obtainable is insufficient to allow Midwest Generation to admit or deny the request. .

13. Admit that Ash Landfill SW has not been lined or relined since MWG began operating Joliet 29.

**ANSWER:**

See Answer to Request No. 8, incorporated by reference.

14. Admit that there is Coal ash in the ground within the boundary of the Ash Landfill SW at Joliet 29.

**ANSWER:**

Midwest Generation objects to this request on the grounds that the phrase “Coal ash in the ground” is vague, ambiguous, and capable of varying interpretations. Midwest Generation further objects to this request pursuant to its sixth General Objection set forth above, that this request is in excess of the number of requests allowed under Ill. Sup. Ct. Rule 216(f) and the additional requests for admission agreed to in the Agreed Motion to Extend the Discovery Schedule and Modify the Discovery Order filed with the Board on February 4, 2015.

15. Admit that MWG has not removed Coal ash from Ash Landfill SW at Joliet 29.

**ANSWER:**

Denied.

16. Admit that there is no impermeable cap over Ash Landfill SW at Joliet 29.

**ANSWER:**

Midwest Generation objects to this request on the grounds that the term “impermeable cap” is vague, ambiguous, and capable of varying interpretations. Midwest Generation further

objects to this request pursuant to its sixth General Objection set forth above, that this request is in excess of the number of requests allowed under Ill. Sup. Ct. Rule 216(f) and the additional requests for admission agreed to in the Agreed Motion to Extend the Discovery Schedule and Modify the Discovery Order filed with the Board on February 4, 2015.

17. Admit that the Former Slag/Fly Ash Storage Area at Waukegan is not lined.

**ANSWER:**

Midwest Generation objects to this request on the grounds that the term “lined” is vague, ambiguous, and capable of varying interpretations. Subject to its objection, Midwest Generation states that after reasonable inquiry, the information known or readily obtainable is insufficient to allow Midwest Generation to admit or deny the request.

18. Admit that the Former Slag/Fly Ash Storage Area at Waukegan has not been lined or relined since MWG began operating Waukegan.

**ANSWER:**

See Answer to Request No. 8, incorporated by reference.

19. Admit that there is Coal ash in the ground within the boundary of the Former Slag/Fly Ash Storage Area at Waukegan.

**ANSWER:**

See Answer to Request No. 14, incorporated by reference.

20. Admit that Coal ash has not been removed from the Former Slag/Fly Ash Storage Area at Waukegan since MWG began operating Waukegan.

**ANSWER:**

Midwest Generation objects to this request pursuant to its sixth General Objection set forth above, that this request is in excess of the number of requests allowed under Ill. Sup. Ct. Rule

216(f) and the additional requests for admission agreed to in the Agreed Motion to Extend the Discovery Schedule and Modify the Discovery Order filed with the Board on February 4, 2015.

21. Admit that there is no impermeable cap over the Former Slag/Fly Ash Storage Area at Waukegan.

**ANSWER:**

Midwest Generation objects to this request on the grounds that the term “impermeable cap” is vague, ambiguous, and capable of varying interpretations. Subject to its objection, Midwest Generation admits the request.

22. Admit that, other than any borings taken when drilling Waukegan Groundwater Monitoring Wells MW-1 through MW-5 at Waukegan, MWG has not removed any Coal ash from the ground in the vicinity of Waukegan Groundwater Monitoring Wells MW-1 through MW-4.

**ANSWER:**

Midwest Generation objects to this request on the grounds that the term “vicinity” and the phrase “Coal ash from the ground” are vague, ambiguous, and capable of varying interpretations. Midwest Generation further objects to this request on the grounds that it is vague because it presumes that there is Coal ash on or in the soil in the vicinity of the Waukegan Groundwater Monitoring Wells MW-1 through MW-4. Subject to its objection, Midwest Generation denies this request.

23. Admit that, other than any borings taken when drilling Waukegan Groundwater Monitoring Wells MW-7 through MW-9, MWG has not removed any Coal ash from the ground in the vicinity of Waukegan Groundwater Monitoring Wells MW-7 through MW- 9 at Waukegan.

**ANSWER:**

Midwest Generation objects to this request on the grounds that the term “vicinity” and the phrase “Coal ash from the ground” are vague, ambiguous, and capable of varying interpretations. Midwest Generation further objects to this request as vague because it presumes that there is Coal

ash on or in the ground in the vicinity of the Waukegan Groundwater Monitoring Wells MW-7 through MW-9. Subject to its objection, Midwest Generation denies this request.

24. Admit that the Retention Basin at Will County is not lined.

**ANSWER:**

Midwest Generation objects to this request on the grounds that the term “lined” is vague, ambiguous, and capable of varying interpretations. Without waiving its objection, Midwest Generation denies this request.

25. Admit that the Retention Basin at Will County has not been lined or relined since MWG began operating Waukegan.

**ANSWER:**

Midwest Generation objects to this request on the grounds that the terms “lined” and “relined” are vague, ambiguous, and capable of varying interpretations. Midwest Generation further objects that this request is vague because operations at Will County did not depend upon operations at Waukegan. Without waiving its objection, Midwest Generation denies this request.

26. Admit that the Retention Basin at Will County currently contains Coal ash.

**ANSWER:**

Midwest Generation objects to this request on the grounds that the term “contains” is vague, ambiguous, and capable of varying interpretations because it does not account for *de minimis* amounts that may inadvertently land in the Retention Basin due to the nature of the operations at the Will County Station. Without waiving its objections, Midwest Generation denies this request.

27. Admit that Coal ash has not been removed from the Retention Basin at Will County since MWG began operating Will County.

**ANSWER:**

Denied.

28. Admit that there is no impermeable cap over the Retention Basin at Will County.

**ANSWER:**

Midwest Generation objects to this request on the grounds that the term “impermeable cap” is vague, ambiguous, and capable of varying interpretations. Without waiving its objection, Midwest Generation admits this request.

29. Admit that the Standby Pond at Will County is not lined.

**ANSWER:**

Midwest Generation objects to this request on the grounds that the term “lined” is vague, ambiguous, and capable of varying interpretations. See Answer to request No. 8, incorporated by reference.

30. Admit that the Standby Pond at Will County has not been lined or relined since MWG began operating Waukegan.

**ANSWER:**

See Answer to request No. 8, incorporated by reference.

31. Admit that Coal ash has not been removed from the Standby Pond at Will County since MWG began operating Will County.

**ANSWER:**

See Answer to request No. 20, incorporated by reference.

32. Admit that there is no impermeable cap over the Standby Pond at Will County.

**ANSWER:**

Midwest Generation objects to this request on the grounds that the term “impermeable cap” is vague, ambiguous, and capable of varying interpretations. Without waiving its objection, Midwest Generation admits this request.

33. Please admit you have no information that boron was used at the General Boiler site.

**ANSWER:**

See Answer to request No. 20, incorporated by reference.

34. Please admit you have no information that anything containing boron was used at the General Boiler site.

**ANSWER:**

See Answer to request No. 20, incorporated by reference.

Respectfully submitted,

Midwest Generation, LLC

By: /s/ Jennifer T. Nijman  
One of Its Attorneys

March 31, 2015

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Kristen L. Gale  
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**BEFORE THE ILLINOIS POLLUTION CONTROL BOARD**

In the Matter of:	)	
SIERRA CLUB, ENVIRONMENTAL	)	
LAW AND POLICY CENTER,	)	
PRAIRIE RIVERS NETWORK, and	)	
CITIZENS AGAINST RUINING THE	)	PCB No-2013-015
ENVIRONMENT	)	(Enforcement – Water)
	)	
Complainants,	)	
	)	
v.	)	
	)	
MIDWEST GENERATION, LLC,	)	
	)	
Respondent.	)	

**MIDWEST GENERATION, LLC’S SUPPLEMENTAL RESPONSE  
TO COMPLAINANTS’ SECOND SET OF REQUESTS FOR  
ADMISSION TO RESPONDENTS**

Respondent, Midwest Generation, LLC, (“Midwest Generation”), through its undersigned attorneys, issues its supplemental response to Complainants’ Second Set of Requests for Admission, (“Requests”), as follows:

**GENERAL OBJECTIONS**

Each of the Responses is made subject to and incorporates by reference the objections made in Midwest Generation’s Responses to Complainants’ First Set of Interrogatories, Requests for Documents and Request for Admission provided on September 2, 2014. Additionally, Midwest Generation makes the following objections:

1. Midwest Generation objects to the “Coal ash” definition to the extent that it includes other waste streams resulting from the operation of pollution controls.
2. Midwest Generation objects to the “Coal ash units” definition to the extent that it includes

areas in which coal ash is not purposely directed to or placed on and to the extent it includes *de minimis* collections of coal ash due to the operations of the Station.

3. Midwest Generation objects to the “Joliet 29” definition to the extent it states that the Station is located in Kendall County.

4. Midwest Generation objects to the “Uppermost aquifer” definition as vague, ambiguous and capable of varying interpretations. Additionally, Midwest Generation objects to the definition to the extent it depends upon a coal ash unit to identify any aquifer’s location.

5. Midwest Generation objects to Instruction No. 6 as overly broad and unduly burdensome.

6. Midwest Generation objects to the Number of Requests to Admit as in excess of the number of requests allowed under the Ill. Sup. Ct. Rule 216(f) and the additional requests for admission agreed to in the Agreed Motion to Extend the Discovery Schedule and Modify the Discovery Order filed with the Board on February 4, 2015. Illinois Supreme Court Rule 216(f) allows each party to issue a maximum of 30 requests for admission, and each subpart counts as a separate request. Ill. Sup. Ct. Rule 216(f). On June 16, 2014, Complainants submitted to Midwest Generation three Requests for Admission of Genuineness of Documents, attaching fifty-eight documents. Each of the fifty eight documents is a subpart of the request for admission. On February 4, 2015, the parties agreed that each may propound 20 additional requests for admission. On March 2, 2015, Complainants propounded a total of forty requests to admit to Complainants in their Second and Third Set of Requests for Admission. Because the requests to admit are in excess of the agreed extension and the limits under Ill. Sup. Ct. Rule 216(f), Midwest Generation answered twenty of the forty propounded requests for admission. Additionally, subject to the objection that the requests exceed the agreed extension and Illinois Rules, Midwest Generation has agreed to Complainants’ June 1, 2015 request that it answer six additional requests to admit in this Supplemental Response to the Requests to Admit and its Supplemental Response to

Complainants' Third Requests to Admit which is identified as subject to the Protective Order for Non-Disclosable Information.

### **REQUESTS FOR ADMISSION**

3. Admit that, prior to approval of the Joliet 29 Groundwater Monitoring Zone ("GMZ"), all of the groundwater underlying Joliet 29 was classified as Class I: Potable Resource Groundwater pursuant to 35 Ill. Adm. Code Part 620.

#### **ANSWER:**

Midwest Generation objects to this request as calling for a legal conclusion. Midwest Generation further objects to this request pursuant to its sixth General Objection set forth above, that this request is in excess of the number of requests allowed under Ill. Sup. Ct. Rule 216(f) and the additional requests for admission agreed to in the Agreed Motion to Extend the Discovery Schedule and Modify the Discovery Order filed with the Board on February 4, 2015. Subject to its objections, Midwest Generation states that after reasonable inquiry, the information known or readily obtainable is insufficient to allow Midwest Generation to admit or deny the request

4. Admit that, prior to approval of the Will County Groundwater Monitoring Zone ("GMZ"), all of the groundwater underlying Will County was classified as Class I: Potable Resource Groundwater pursuant to 35 Ill. Adm. Code Part 620.

#### **ANSWER:**

See Answer to Request No. 3, incorporated by reference.

5. Admit that, prior to approval of the Powerton Groundwater Monitoring Zone ("GMZ"), all of the groundwater underlying Powerton was classified as Class I: Potable Resource Groundwater pursuant to 35 Ill. Adm. Code Part 620.

#### **ANSWER:**

See Answer to Request No. 3, incorporated by reference.

6. Admit that the groundwater underlying Waukegan is classified as Class I: Potable Resource Groundwater pursuant to 35 Ill. Adm. Code Part 620.

**ANSWER:**

See Answer to Request No. 3, incorporated by reference.

34. Please admit you have no information that anything containing boron was used at the General Boiler site.

**ANSWER:**

Midwest Generation further objects to this request pursuant to its sixth General Objection set forth above, that this request is in excess of the number of requests allowed under Ill. Sup. Ct. Rule 216(f) and the additional requests for admission agreed to in the Agreed Motion to Extend the Discovery Schedule and Modify the Discovery Order filed with the Board on February 4, 2015. Subject to its objections, Midwest Generation denies the request.

Respectfully submitted,

Midwest Generation, LLC

By: /s/ Jennifer T. Nijman  
One of Its Attorneys

June 10, 2015

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312-251-5255

Under penalties as provided by law pursuant to Section 1-109 of the Code of Civil Procedure, the undersigned certifies that the statements set forth in the Midwest Generation, LLP Responses to Complainants' Interrogatories and Requests to Admit dated September 2, 2014 and

March 31, 2015 and supplemented on June 10, 2015, except as to matters therein stated to be on information and belief and as to such matters the undersigned certifies as aforesaid that it verily believes the same to be true.

I have personal knowledge of the facts stated herein.

**FURTHER AFFIANT SAYETH NOT.**

A handwritten signature in cursive script, appearing to read "Maria Race", written in black ink on a white background.

Maria Race

**BEFORE THE ILLINOIS POLLUTION CONTROL BOARD**

<b>In the Matter of:</b>	)	
	)	
<b>SIERRA CLUB, ENVIRONMENTAL</b>	)	
<b>LAW AND POLICY CENTER,</b>	)	
<b>PRAIRIE RIVERS NETWORK, and</b>	)	
<b>CITIZENS AGAINST RUINING THE</b>	)	
<b>ENVIRONMENT</b>	)	
	)	<b>PCB 2013-015</b>
<b>Complainants,</b>	)	<b>(Enforcement – Water)</b>
	)	
<b>v.</b>	)	
	)	
<b>MIDWEST GENERATION, LLC,</b>	)	
	)	
<b>Respondent.</b>	)	

**RESPONDENT, MIDWEST GENERATION, LLC’S SUPPLEMENTAL RESPONSE TO  
COMPLAINANTS’ FIRST SET OF INTERROGATORIES**

Respondent, Midwest Generation, LLC, (“Midwest Generation”), through its attorneys Nijman Franzetti, LLP, issues its supplemental response to Complainants’, Sierra Club, Environmental Law and Policy Center, Prairie Rivers Network, and Citizens Against Ruining the Environment, First Set of Interrogatories, (the “Requests”), as follows:

**GENERAL OBJECTIONS**

Each of the Answers and Responses is made subject to and incorporates the following objections. Respondent reserves the right to object to the admissibility of any of the documents produced pursuant to the Responses, in whole or in part, at trial in this action on any grounds including but not limited to materiality, relevance, confidential business information and privilege.

1. Midwest Generation objects to the “Coal ash” definition to the extent it includes coal ash that is not stored or transferred to the Coal ash units at the Joliet 29, Powerton, Waukegan, and Will County Stations.

2. Midwest Generation objects to the Requests to the extent that they seek information that is subject to the attorney-client privilege or the work product privilege. To the extent that any privileged information is inadvertently provided in these responses or any documents produced, such provision shall not constitute waiver of the privilege or immunity as to any such information and Complainants shall return any such information upon request.

3. Midwest Generation objects to any Instruction that seeks to impose a duty or burden on Midwest Generation beyond that required by the Illinois Pollution Control Board (“Board”) Rules, the Illinois Code of Civil Procedure.

### **ANSWERS TO INTERROGATORIES**

**INTERROGATORY NO. 7:** Identify all known Coal ash units, including but not limited to ponds, impoundments, or landfills, that have ever been used to store or dispose of Coal ash at each plant, including both active and inactive or abandoned coal ash units, and for each Coal ash unit:

- a. State whether the unit was or is lined, and if so, when the original liner and any replacement liners were installed and the type of the original and any replacement liners;
- b. State whether all Coal ash has been removed from that unit, and if so, when and by whom that removal was performed; and
- c. State whether MWG has ever become aware of any Breach of, or damage to, any liner, and if so, what actions were taken to address those breaches or damage.

**ANSWER:** Midwest Generation objects to Interrogatory No. 7 because it is overly broad, unduly burdensome, is not limited in time, and seeks material covered by the work product and attorney-client privilege. Additionally, Midwest Generation objects to this interrogatory as requesting information already provided in the responses to the document

requests and in the depositions. Without waiving its objections and subject to a protective order, Midwest Generation states the following:

Joliet 29 Station has three active ash ponds and, based on information and belief, there are two historical ash areas. The three active ash ponds, Ash Ponds 1, 2, and 3, are lined with a High Density Polyethylene (HDPE) liner. They were originally constructed in 1978 with a poz-o-pac liner. MWG installed HDPE liners in Ash Ponds 1 & 2 in 2008 and installed an HDPE liner in Ash Pond 3 in 2013. Coal ash is removed from Ash Ponds 1 & 2 approximately every one to two years. Ash Pond 3 is a finishing pond, and coal ash was removed from Pond 3 in 2013. Coal ash is removed from the ponds by Beemsterboer. A breach in the liner in Ash Pond 3 above the water line occurred in February 2015, and was repaired as soon as the weather allowed in 2015. MWG has no knowledge of lining under the historical ash areas, or if there is a breach or damage to any liner under the historical areas. Coal ash was removed from the historical area on the southwest side of the property by KPRG in 2005 and 2007. Other than the two removals in 2005 and 2007, MWG has no knowledge of any removals of coal ash from the historical areas.

Powerton Station has three active ash ponds (the Ash Surge Basin, the Ash Bypass Basin, and the Secondary Ash Settling Basin), and uses one basin as a temporary holding spot (the Metal Cleaning Basin). The three ash ponds, and the basin are lined with a HDPE liner. The Ash Surge Basin and the Metal Cleaning Basin were originally constructed in 1978 with a poz-o-pac and hypolon liner. MWG has no knowledge of the original construction date of the Ash Bypass Basin or the Secondary Ash Settling Basin. Both the Secondary Ash Settling Basin and the Ash Bypass Basin originally had a hypalon liner. In 2010, the Metal Clean Basin and the Ash Bypass Basin were relined with HDPE liners. In 2013, the Ash Surge Basin and the Secondary Ash Settling Basin were relined with HDPE liners. Coal ash is removed from the Ash Surge Basin,

the Ash Bypass Basin and the Secondary Ash Settling Basin approximately every six to eight years. Coal Ash is removed from the Metal Cleaning Basin approximately annually. The Coal Ash is removed by Harsco Minerals, Capital Minerals and the Station. There were periodic tears at the top of the hypalon liners, above the water line, in the Ash Settling Basin Ash Bypass Basin, Metal Cleaning Basin, all of which were promptly repaired. On information and belief, the Powerton Station also has three areas that historically contained ash: the limestone basin, an area south of the ash bypass basin, and the former ash pond. The limestone basin is lined on the bottom with a poz-o-pac liner and a hypolan liner on the sides. Coal ash was temporarily stored in the limestone basin in the past, and it is not presently used for storage of coal ash. On information and belief, ash was removed from the limestone basin in 2004, but MWG been unable to locate information regarding the removal. On information and belief, there were breaches at the top of the hypalon liner on the sides of the limestone basin. On one occasion, between approximately 2002 and 2004, MWG installed temporary plastic lining in the limestone basin. Coal ash was also temporarily stored in an area south of the ash bypass basin in the winter of 2001, but has not been stored at that location since and no ash is at that location now. On information and belief, in 2001 Reed Minerals removed the ash in that area for beneficial use. Additionally, MWG has no knowledge of the lining under the area south of the ash bypass basin or if there was a breach any lining underneath the area. On information and belief, the former ash pond area is a historical ash area and there is no liner below the former ash pond. MWG has no knowledge if there is a breach or damage to any liner under the former ash pond, or if ash has been removed from the former ash pond.

Waukegan Station has two active ash ponds, both of which are lined with a HDPE liner, and, based on information and belief, a historical ash area. The ash ponds were originally

constructed in 1978 and lined with a hypalon liner. In 2003, the East Pond was relined with an HDPE liner, and in 2005, the West Pond was relined with an HDPE liner. Coal ash is removed approximately annually from the ash ponds by Lafarge North America. Minor breaches in the upper portions of the liners, due to equipment use above the water line, have occurred and have been promptly repaired. Recently, there was a tear in the top of the East Ash Pond in 2013 and a tear in the East and West Ponds in 2014. On information and belief, both tears were promptly repaired as soon as weather allowed. MWG has no knowledge of the lining under the historical ash area, whether coal ash was removed from the historical ash area, or if there is a breach or damage to any liner in the historical ash area.

Will County Station has two active ash ponds (Ponds 2S and 3S) and two inactive ash ponds (Ponds 1N and 1S). All four ash ponds were originally constructed in 1977 with a poz-o-pac liner. In 2009, Pond 3S was relined with an HDPE liner, and in 2013, Pond 2S was relined with an HDPE liner. Coal ash is removed from the ash ponds by Lafarge North America approximately annually. MWG is aware of a tear in the HDPE liner in 3S in 2012, which was promptly repaired in 2012, and there was also a crack in the second layer of poz-o-pac under Pond 3S in 2009. The Retention Basin, a concrete basin, also historically contained ash, and on information and belief the ash was removed approximately daily. The Retention Basin is no longer used for any processes related to ash, and no longer contains any ash. There is also a historical slag stockpile near the Retention Basin. In 2015, MWG removed approximately 1,800 tons of slag from the stockpile. Currently, the area contains an ash pile. A 1999 Phase II Report, conducted for a previous site owner, identified historic areas including a slag and bottom ash dumping area and a slag dumping area. MWG has no knowledge whether such areas were lined,

whether coal ash was removed from the areas, or if there is a breach or damage to any liner in the areas.

Responsive documents are also at Bates MWG13-15\_1 -176, MWG13-15\_8415-11492, MWG13-15\_11493-13421, MWG13-15\_17637-17973, MWG13-15\_18823-MWG13-15\_18990, MWG13-15\_16770-18938, MWG13-15\_28404-29796, MWG13-15\_45621, MWG13-15\_44770, MWG-13-15\_48636-48639; M. Kelly deposition, pp. 26, 28, 31 40, 41, 42, 53, 54, 59, 77, 75 94, 112; J.DiCola Deposition, pp. 44, 103, 105, 106, 108, 109; C. Lux Deposition, p. 20; R.Maddox Deposition, pp. 90-93, 120-121.

Dated: June 10, 2015

Respectfully submitted,

Midwest Generation, LLC.

By: /s/ Jennifer T. Nijman  
One of Its Attorneys

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Under penalties as provided by law pursuant to Section 1-109 of the Code of Civil Procedure, the undersigned certifies that the statements set forth in the Midwest Generation, LLP Responses to Complainants' Interrogatories and Requests to Admit dated September 2, 2014 and March 31, 2015 and supplemented on June 10, 2015, except as to matters therein stated to be on information and belief and as to such matters the undersigned certifies as aforesaid that it verily believes the same to be true.

I have personal knowledge of the facts stated herein.

**FURTHER AFFIANT SAYETH NOT.**

A handwritten signature in black ink, appearing to read "Maria Race", written over a horizontal line.

Maria Race

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July 27, 2012

VIA OVERNIGHT MAIL

Illinois EPA  
Division of Public Water Supplies  
Attn: Andrea Rhodes, CAS #19  
P.O. Box 19276  
Springfield, IL 62794-9276

Re: 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.<sup>1</sup> 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.<sup>2</sup> At no time however did MWG agree that the scope and nature of the hydrological assessment the Agency required it to perform would

<sup>1</sup> 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.

<sup>2</sup> 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.

Comp. Ex. 8B

MWG13-15\_364

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.<sup>3</sup> 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, 1<sup>st</sup> 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

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<sup>3</sup> *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.<sup>4</sup>

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).

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<sup>4</sup> 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.<sup>5</sup> 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.<sup>6</sup> 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.

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<sup>5</sup> 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).

<sup>6</sup> 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.<sup>7</sup> 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.

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<sup>7</sup> 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.<sup>8</sup> 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.<sup>9</sup> The oxidation-reduction potential (ORP) data collected in the field during the quarterly sampling is also consistent with the presence of a strongly reducing

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<sup>8</sup> See attached Table 1: Field Parameter Data.

<sup>9</sup> 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.<sup>10</sup> 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.<sup>11</sup> 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.

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

<sup>11</sup> 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.<sup>12</sup> 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.

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<sup>12</sup> 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.<sup>13</sup> 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.<sup>14</sup> 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.

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<sup>13</sup> 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.

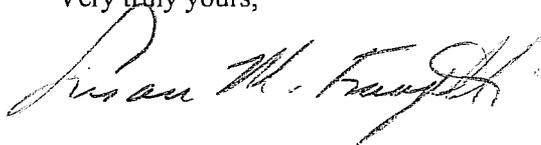
<sup>14</sup> See previously submitted Hydrogeologic Assessment of Midwest Generation Electric Generation Stations: Will County Station, Waukegan Station, Joliet 29 Station, Crawford Station, Powerton Station.

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

Chemical Name	Sample Analysis Method	Groundwater Quality Standard (mg/L) Class 1*	MW-1		MW-2		MW-1		MW-2		MW-1		MW-2	
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Antimony	Metals 6020	0.006	0.0043	NS	NS	0.0012	NS	0.0042	NS	0.0032	NS	0.0042	NS	0.0032
Arsenic	Metals 6020	0.05	0.0011	NS	NS	0.0014	NS	0.0014	NS	NS	NS	NS	NS	NS
Barium	Metals 6020	2.0	0.13	NS	NS	0.14	NS	NS	NS	0.081	NS	0.081	NS	0.12
Beryllium	Metals 6020	0.004	ND	NS	NS	ND	NS	ND	NS	ND	NS	ND	NS	ND
Cadmium	Metals 6020	0.005	ND	NS	NS	ND	NS	ND	NS	ND	NS	ND	NS	ND
Chromium	Metals 6020	0.1	ND	NS	NS	ND	NS	ND	NS	ND	NS	ND	NS	ND
Cobalt	Metals 6020	1.0	ND	NS	NS	0.001	NS	NS	NS	NS	NS	NS	NS	NS
Copper	Metals 6020	0.65	0.0032	NS	NS	0.0025	NS	NS	NS	NS	NS	NS	NS	NS
Cyanide	Dissolved 9014	0.2	ND	NS	NS	ND	NS	ND	NS	ND	NS	ND	NS	ND
Iron	Metals 6020	5.0	ND	NS	NS	ND	NS	ND	NS	ND	NS	ND	NS	ND
Lead	Metals 6020	0.0075	ND	NS	NS	ND	NS	ND	NS	ND	NS	ND	NS	ND
Manganese	Metals 6020	0.15	ND	NS	NS	ND	NS	ND	NS	ND	NS	ND	NS	ND
Mercury	Mercury 7470A	0.002	ND	NS	NS	ND	NS	ND	NS	ND	NS	ND	NS	ND
Nickel	Metals 6020	0.1	0.0034	NS	NS	0.0029	NS	NS	NS	NS	NS	NS	NS	NS
Selenium	Metals 6020	0.05	ND	NS	NS	ND	NS	ND	NS	ND	NS	ND	NS	ND
Silver	Metals 6020	0.05	ND	NS	NS	ND	NS	ND	NS	ND	NS	ND	NS	ND
Thallium	Metals 6020	0.002	ND	NS	NS	ND	NS	ND	NS	ND	NS	ND	NS	ND
Zinc	Metals 6020	5.0	0.31	NS	NS	0.29	NS	NS	NS	NS	NS	NS	NS	NS
Boron	Metals 6020	2	180	NS	NS	81	NS	81	NS	0.35	NS	0.35	NS	0.44
Sulfate	Dissolved 9038	400	140	NS	NS	170	NS	170	NS	67	NS	67	NS	110
Chloride	Dissolved 9251	200	140	NS	NS	2.9	NS	2.9	NS	1.8	NS	1.8	NS	2.2
Nitrogen/Nitrate	Nitrogen By calc	10	590	NS	NS	670	NS	670	NS	720	NS	720	NS	690
Total Dissolved Solids	Dissolved 2540C	1,200	0.45	NS	NS	0.43	NS	0.43	NS	0.58	NS	0.58	NS	0.51
Fluoride	Dissolved 4500 FC	4	ND	NS	NS	ND	NS	ND	NS	ND	NS	ND	NS	ND
Nitrogen/Nitrite	Dissolved 4500 N02	NA	1.9	NS	NS	2.9	NS	2.9	NS	1.8	NS	1.8	NS	2.2
Nitrogen/Nitrate/Nitrite	Dissolved 4500 N03	NA	3.1	NS	NS	3.1	NS	3.1	NS	2.2	NS	2.2	NS	2.9

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

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

Chemical Name	Sample Analysis Method	Groundwater Quality Standard Class I*	MW-3 (mg/L)		MW-4 (mg/L)		MW-3 (mg/L)		MW-4 (mg/L)		MW-3 (mg/L)		MW-4 (mg/L)	
			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
Antimony	Metals 6020	0.006	0.004	ND	ND	0.0065	0.016	0.013	ND	ND	ND	0.0067	0.0057	
Arsenic	Metals 6020	0.05	ND	0.0012	0.0016	0.0012	0.0016	0.0014	ND	ND	ND	0.0011	ND	
Barium	Metals 6020	2.0	0.089	0.085	0.081	0.081	0.084	0.081	0.065	0.065	0.06	0.069	0.07	
Beryllium	Metals 6020	0.004	ND	ND	ND	ND	ND	ND	ND	ND	0.059	ND	ND	
Cadmium	Metals 6020	0.005	ND	ND	ND	ND	ND	0.00074	ND	ND	ND	ND	ND	
Chromium	Metals 6020	0.1	ND	ND	ND									
Cobalt	Metals 6020	1.0	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	ND	ND	ND	ND	ND	
Copper	Metals 6020	0.65	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0018	0.0026	
Cyanide	Dissolved 9014	0.2	ND	ND	ND									
Iron	Metals 6020	5.0	ND	ND	ND									
Lead	Metals 6020	0.0075	ND	ND	ND									
Manganese	Metals 6020	0.15	0.1	0.048	0.076	0.076	0.068	0.0995	0.33	0.048	0.066	0.029	0.038	
Mercury	Mercury 7470A	0.002	ND	ND	ND	ND	ND	ND	ND	0.0037	0.0037	ND	ND	
Nickel	Metals 6020	0.1	0.011	0.0065	0.0041	0.0041	0.006	0.0046	0.0067	0.0037	0.0029	0.0038	0.0037	
Selenium	Metals 6020	0.05	ND	ND	ND									
Silver	Metals 6020	0.05	ND	ND	ND	ND	ND	ND	0.0025	ND	ND	ND	ND	
Thallium	Metals 6020	0.002	ND	ND	ND									
Zinc	Metals 6020	5.0	ND	ND	ND									
Boron	Metals 6020	2	0.24	0.36	0.46	0.24	0.23	0.26	0.46	0.37	0.25	0.34	0.29	
Sulfate	Dissolved 9038	400	120	160	120	120	160	190	300	140	74	170	210	
Chloride	Dissolved 9251	200	260	240	300	160	260	250	270	270	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	0.62	
Total Dissolved Solids	Dissolved 2540C	1,200	930	1,100	1,000	930	1,100	1,000	1,100	1,000	890	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	0.44	0.41	
Nitrogen/Nitrite	Dissolved 4500 NO2	NA	ND	ND	ND									
Nitrogen/Nitrate/Nitrite	Dissolved 4500 NO3	NA	1	2.1	1.1	0.79	1.6	1.6	0.81	1.6	2.7	1.4	0.62	

Notes:  
 \*Class I Groundwater Standards from 35 IAC Part 620  
 Bold values show exceedences of 35 IAC Part 620  
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 Groundwater Analytical Results - AMENDED JULY 2012  
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 Midwest Generation  
 21253.034

Chemical Name	Sample Analysis Method	Groundwater Quality Standard (mg/L) Class 1*	MW-5 (mg/L)		MW-5 (mg/L)		MW-5 (mg/L)		MW-5 (mg/L)		MW-6 (mg/L)		MW-6 (mg/L)		MW-6 (mg/L)	
			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		
Antimony	Metals 6020	0.006	ND	ND	ND	ND	ND	0.0035	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	Metals 6020	0.05	ND	ND	ND	0.0011	ND	0.0011	ND	0.0015	ND	0.0015	ND	0.0018	ND	0.0016
Barium	Metals 6020	2.0	0.061	0.092	0.053	0.053	0.069	0.069	0.075	0.12	0.082	0.094	0.11	0.11	0.13	0.13
Beryllium	Metals 6020	0.004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium	Metals 6020	0.005	ND	ND	ND	ND	0.0016	0.0016	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	Metals 6020	0.1	ND	ND	ND	ND	ND	ND	ND	0.0019	ND	ND	ND	ND	ND	ND
Cobalt	Metals 6020	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper	Metals 6020	0.65	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyanide	Dissolved 9014	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iron	Metals 6020	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead	Metals 6020	0.075	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Manganese	Metals 6020	0.075	ND	ND	ND	ND	ND	ND	ND	0.033	ND	0.036	0.024	0.024	0.015	0.015
Mercury	Metals 6020	0.15	0.0065	0.0072	0.0072	0.0021	0.0021	0.005	0.0056	0.0025	ND	0.0025	ND	0.0054	0.0051	0.0051
Nickel	Mercury 7470A	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00077	ND	ND	ND	ND
Nickel	Metals 6020	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium	Metals 6020	0.05	ND	0.0072	0.0072	0.0021	0.0021	0.005	0.0056	0.0025	ND	0.0025	ND	0.0054	0.0051	0.0051
Silver	Metals 6020	0.05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	Metals 6020	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	Metals 6020	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	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	0.25	0.25
Sulfate	Dissolved 9038	400	110	160	100	140	140	190	140	140	87	100	130	110	110	110
Chloride	Dissolved 9251	200	150	240	220	120	190	210	130	270	140	140	130	240	240	240
Nitrogen/Nitrate	Nitrogen By calc.	10	1.2	1.3	1.1	1.1	1.5	0.33	0.33	1.3	0.91	0.31	0.36	0.36	0.36	0.36
Total Dissolved Solids	Dissolved 2540C	1,200	750	950	850	800	900	930	650	1,000	650	620	710	800	800	800
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	0.36	0.36
Nitrogen/Nitrite	Dissolved 4500 NO2	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrogen/Nitrate/Nitrite	Dissolved 4500 NO3	NA	ND	1.2	1.3	1.1	1.5	0.33	0.33	1.3	0.91	0.31	0.36	0.36	0.36	0.36

Notes:

\*Class 1 Groundwater Standards from 35 IAC Part 620

Bold values show exceedences of 35 IAC Part 620

ND-non detect

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mg/L- milligrams per liter

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 Midwest Generation  
 21253.034

PATRICKS ENGINEERING	Chemical Name	Sample Analysis Method	Groundwater Quality Standard (mg/L) Class 1*	MW-7 (mg/L)		MW-8 (mg/L)		MW-5 (mg/L)		MW-8 (mg/L)		MW-8 (mg/L)	
				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
Antimony		Metals 6020	0.006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic		Metals 6020	0.05	0.001	ND	0.0014	0.001	ND	ND	ND	ND	ND	ND
Barium		Metals 6020	2.0	0.13	0.11	0.072	0.092	0.13	0.13	0.054	0.048	0.057	0.049
Beryllium		Metals 6020	0.004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium		Metals 6020	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium		Metals 6020	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cobalt		Metals 6020	1.0	ND	ND	ND	0.011	ND	ND	ND	ND	ND	ND
Copper		Metals 6020	0.65	ND	ND	ND	0.0025	ND	ND	ND	ND	ND	ND
Cyanide		Dissolved 9014	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iron		Metals 6020	5.0	ND	ND	ND	3.8	ND	ND	ND	ND	ND	ND
Lead		Metals 6020	0.0075	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Manganese		Metals 6020	0.15	0.29	0.014	ND	0.08	0.0073	0.015	0.0051	ND	ND	0.0042
Mercury		Mercury 7470A	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel		Metals 6020	0.1	0.0045	ND	ND	0.014	ND	ND	ND	ND	ND	ND
Selenium		Metals 6020	0.05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver		Metals 6020	0.05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium		Metals 6020	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc		Metals 6020	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Boron		Metals 6020	2	0.51	0.39	0.25	0.29	0.35	0.3	0.29	0.16	0.16	0.13
Sulfate		Dissolved 9028	400	250	120	85	110	160	140	210	87	120	170
Chloride		Dissolved 9251	200	430	320	140	99	140	140	300	350	150	130
Nitrogen/Nitrate		Nitrogen By calc	10	ND	1.2	0.76	0.27	0.6	0.6	0.33	2.2	1.9	0.95
Total Dissolved Solids		Dissolved 2540C	1,200	1,200	970	580	650	780	870	670	990	560	800
Fluoride		Dissolved 4500 FC	4	0.36	0.31	0.35	0.27	0.35	0.31	0.31	0.36	0.45	0.25
Nitrogen/Nitrite		Dissolved 4500 NO2	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrogen/Nitrate/Nitrite		Dissolved 4500 NO3	NA	ND	1.2	0.76	0.27	0.6	0.6	0.33	2.2	1.9	0.95

Notes:  
 \*Class 1 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).  
 - Value has not changed; font has been changed from bold to normal.  
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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) Class 1*	MW-9 (mg/L)		MW-10 (mg/L)		MW-9 (mg/L)		MW-10 (mg/L)		MW-9 (mg/L)		MW-10 (mg/L)	
			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
Antimony	Metals 6020	0.006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	Metals 6020	0.05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	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	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium	Metals 6020	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	Metals 6020	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	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	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyanide	Dissolved 9014	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	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	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Manganese	Metals 6020	0.0075	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mercury	Mercury 7470A	0.002	1.1	1.6	0.95	0.82	0.66	1.3	0.12	0.0076	ND	ND	ND	ND
Nickel	Metals 6020	0.1	0.0094	0.0072	0.013	0.014	0.011	0.0054	0.0052	0.0029	ND	ND	0.0024	ND
Selenium	Metals 6020	0.05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver	Metals 6020	0.05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	Metals 6020	0.05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	Metals 6020	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	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	130	1,600	130	130	89	100	190	250
Chloride	Dissolved 9251	200	140	240	290	190	190	170	200	300	71	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
Flouride	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 N02	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrogen/Nitrate/Nitrite	Dissolved 4500 N03	NA	ND	ND	0.97	0.36	0.22	0.22	0.39	2.3	2.7	2.6	1.4	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

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- Value has not changed; font has been changed from bold to normal.
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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) Class 1*	MW-11 (mg/L)					MW-11 (mg/L) 3/15/12
			12/6/10	3/23/11	6/14/11	9/14/11	12/7/11	
Antimony	Metals 6020	0.006	ND	ND	ND	ND	ND	ND
Arsenic	Metals 6020	0.05	0.0013	0.0016	ND	0.0016	ND	ND
Barium	Metals 6020	2.0	0.064	0.076	0.051	0.054	0.057	0.067
Beryllium	Metals 6020	0.004	ND	ND	ND	ND	ND	ND
Cadmium	Metals 6020	0.005	ND	ND	ND	ND	ND	ND
Chromium	Metals 6020	0.1	ND	ND	ND	ND	ND	ND
Cobalt	Metals 6020	1.0	ND	ND	ND	ND	ND	ND
Copper	Metals 6020	0.65	ND	ND	ND	ND	ND	ND
Cyanide	Dissolved 901.4	0.2	ND	ND	ND	ND	ND	ND
Iron	Metals 6020	5.0	ND	ND	ND	ND	ND	ND
Lead	Metals 6020	0.0075	ND	ND	ND	ND	ND	ND
Manganese	Metals 6020	0.15	0.052	0.0047	ND	0.0053	0.0047	ND
Mercury	Mercury 7470A	0.002	ND	ND	ND	ND	ND	ND
Nickel	Metals 6020	0.1	0.0022	ND	ND	ND	ND	ND
Selenium	Metals 6020	0.05	ND	0.0054	ND	0.0026	0.0033	0.0043
Silver	Metals 6020	0.05	ND	ND	ND	ND	ND	ND
Thallium	Metals 6020	0.002	ND	ND	ND	ND	ND	ND
Zinc	Metals 6020	5.0	ND	ND	ND	ND	ND	ND
Boron	Metals 6020	2	0.47	2.6	2.2	1.1	1.2	1.4
Sulfate	Metals 6020	5.0	ND	ND	ND	ND	ND	ND
Chloride	Dissolved 9038	400	140	150	110	110	160	140
Nitrogen/Nitrate	Dissolved 9251	200	160	270	280	86	140	240
Total Dissolved Solids	Nitrogen By cate	10	0.39	1.1	0.92	0.31	0.6	0.3
Flouride	Dissolved 2540C	1,200	770	1,000	710	590	790	850
Nitrogen/Nitrite	Dissolved 4500 FC	4	0.34	0.31	0.36	0.32	0.31	0.3
Nitrogen/Nitrate/Nitrite	Dissolved 4500 N02	NA	ND	ND	ND	ND	ND	ND
	Dissolved 4500 N03	NA	0.39	1.1	0.92	0.31	0.6	0.3

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

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

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

 <b>Field Parameter Data - Joliet #29 Station</b>								
Monitoring Well	Date	Time	Temperature (°C)	Conductivity (ms/cm <sup>2</sup> )	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 <sup>f</sup> )	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 Celcius  
 ms/cm<sup>f</sup> Microsiemens/Centimeters  
 NTU Nephelometric Turbidity Units  
 mg/L milligrams/Liter  
 mV milliVolts