

**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>	)	

**NOTICE OF FILING**

TO: Don Brown, Assistant Clerk	Attached Service List
Illinois Pollution Control Board	
James R. Thompson Center	
100 West Randolph Street, Suite 11-500	
Chicago, IL 60601	

PLEASE TAKE NOTICE that I have filed today with the Illinois Pollution Control Board Respondent, Midwest Generation LLC's Pre-Hearing Memorandum, a copy of which is herewith served upon you.

MIDWEST GENERATION, LLC

By: /s/ Jennifer T. Nijman

Dated: October 2, 2017

Jennifer T. Nijman  
Susan M. Franzetti  
Kristen L. Gale  
NIJMAN FRANZETTI LLP  
10 South LaSalle Street, Suite 3600  
Chicago, IL 60603  
(312) 251-5255

**SERVICE LIST**

Bradley P. Halloran, Hearing Officer  
Illinois Pollution Control Board  
100 West Randolph Street  
Suite 11-500  
Chicago, IL 60601

Keith Harley  
Chicago Legal Clinic, Inc.  
211 West Wacker Drive, Suite 750  
Chicago, IL 60606

Faith E. Bugel  
Attorney at Law  
Sierra Club  
1004 Mohawk  
Wilmette, IL 60091

Lindsay P. Dubin  
Eric DeBellis and Jessica Dexter, also for Prairie  
Rivers Network and Sierra Club  
Environmental Law & Policy Center  
35 East Wacker Drive, Suite 1600  
Chicago, IL 60601

Abel Russ  
For Prairie Rivers Network  
Environmental Integrity Project  
1000 Vermont Avenue, Suite 1100  
Washington, DC 20005

Greg Wannier, Associate Attorney  
Sierra Club  
2101 Webster Street, Suite 1300  
Oakland, CA 94612

**CERTIFICATE OF SERVICE**

The undersigned, an attorney, certifies that a true copy of the foregoing Notice of Filing and Respondent, Midwest Generation LLC's Pre-Hearing Memorandum was filed electronically on October 2, 2017 with the following:

Don Brown, Assistant Clerk  
Illinois Pollution Control Board  
James R. Thompson Center  
100 West Randolph Street, Suite 11-500  
Chicago, IL 60601

and that true copies were emailed on October 2, 2017 to the parties listed on the foregoing Service List.

/s/ Jennifer T. Nijman

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<b>MIDWEST GENERATION, LLC,</b>	)	
	)	
<b>Respondent.</b>	)	

**MIDWEST GENERATION, LLC’s PRE-HEARING MEMORANDUM**

Pursuant to the Illinois Pollution Control Board Order dated August 31, 2017, Respondent, Midwest Generation, LLC (“MWG”), by its undersigned counsel, submits its Memorandum and Statement of the Case.

**STATEMENT OF THE CASE**

**I. INTRODUCTION**

To the extent that Complainants can establish groundwater exceedances relating to coal ash exist at each of MWG’s stations, Complainants cannot establish that MWG caused or allowed coal ash at four stations operated by MWG to impact groundwater, nor can they establish a source for the groundwater exceedances. Complainants cannot establish that MWG caused or allowed open dumping because coal ash at the stations is temporarily stored in permitted ash ponds until it is hauled away for beneficial use. Moreover, Coal ash at the stations prior to MWG’s operation has been sampled and is not causing impact to groundwater. Ash historically used for structural fill is not discarded material.

## II. BRIEF STATEMENT OF FACTS

### a. The MWG Stations

This matter relates to four MWG Stations: the Waukegan Electric Generating Station, located in Waukegan, IL (“Waukegan”), the Joliet 29 Electric Generating Station located in Joliet, IL (“Joliet 29”), the Will County Electric Generating Station, located in Romeoville, IL (“Will County”) and the Powerton Electric Generating Station, located in Pekin, IL (“Powerton”), together, the “Stations”. Since this case was filed in 2013, the status of several of the Stations has changed, with one station converted to natural gas, another station partially deactivated, and various ponds and impoundments closed and emptied. The Stations continue to change as MWG implements the CCR rules, which will result in the closure of certain ponds and the rebuilding of other ponds.

i. Joliet 29: The Joliet 29 station was converted to natural gas in March, 2016. Joliet 29 was built in 1964-1965 although some areas of the station were used for coal ash prior to 1964. MWG began operating Joliet 29 in 1999. It is located in an industrial area bordered by a former Caterpillar, Inc. manufacturing facility adjacent to the West, the Channahon Road to the North, beyond which are commercial and industrial facilities, and the Des Plaines River to the South. Joliet 29 formerly operated three ash ponds lined with a concrete-like material called poz-o-pac pursuant to NPDES permit No. IL0064254. The ponds were infrequently used to contain ash because ash was conveyed directly off-site. MWG relined two of the ash ponds in 2008 with a heavy geomembrane (HDPE) and relined the third pond with HDPE in 2013. Joliet 29 ceased burning coal in March, 2016 and began generating electricity with natural gas shortly thereafter. All of the bottom ash in one of the ash ponds (Pond 1) was removed in 2015 and the ash in a second pond (Pond 2) will be removed and hauled to a permitted landfill in 2018. The third pond (Pond 3) was formerly a finishing pond, receiving a *de minimis* amount of ash, and was emptied of material in 2013 when it was relined.

ii. Powerton: The Powerton station began operations in the late 1920s and MWG began operating Powerton in 1999. Powerton is in an industrial area bounded by a cabinetry manufacturer, a railroad, and agricultural land. It is bordered to the north by the Illinois River. Powerton has three basins that were constructed in 1978 and lined with poz-o-pac on the bottom and a geomembrane (Hypalon) on the sides. A third basin was lined in 1978 with Hypalon and served as a finishing pond with only a *de minimis* amount of ash. All of the basins are operated pursuant to NPDES Permit No. IL0002232 and all of the basins were relined with HDPE – two in 2010 and two in 2013.

iii. Waukegan: The Waukegan station was built by approximately 1939 and MWG began operating in 1999. The area has been dominated by industries since at least the 1930s, including the Johns Manville Company, an active Superfund Site, to the North, the Griess-Pfleger Tannery and the U.S. Radiator Corp. to the West, and the North Shore Sanitary District to the South. The Griess-Pfleger Tannery Site has soil and groundwater contamination from its prior use and groundwater sampling results at the Griess-Pfleger Tannery Site shows arsenic, boron, chromium, lead and mercury migrating onto the MWG Waukegan station. Waukegan has two ash ponds, permitted by NPDES No. IL0002259, that are used interchangeably to temporarily store ash until the ash is removed for beneficial use. The ponds were constructed in 1977 with a Hypalon liner and MWG relined the ponds in 2003 and 2004 with HDPE.

iv. Will County: The Will County station was built in 1955 and MWG began operating Will County in 1999. The station is bounded to the East by the Chicago Sanitary & Ship Canal and to the west by the Des Plaines River. There are additional industrial properties surrounding the station including the Citgo Lemont Refinery to the northeast, Hanson Materials (f/k/a Material Service Corp.) to the south, and a ComEd switchyard to the west. The station formerly had four ash ponds, each lined with poz-o-pac. MWG ceased using two of the ash ponds in 2010 and removed the water from the ponds. The two remaining ash ponds, permitted by NPDES No. IL0002208, temporarily store coal ash until the ash is removed for beneficial use. Those two ponds were relined with HDPE in 2009 and 2013.

b. Brief History of the Stations

Shortly after MWG purchased the four Stations in 1999, it began a detailed assessment of the ash ponds. MWG's investigation confirmed that, unlike ash ponds operated by other entities in Illinois, the ash ponds at the Stations were not simply earthen ponds with no protection against the migration of constituents into the land or groundwater. Instead, the active ash ponds had one or even two types of liners – either poz-o-pac, a liner similar to concrete, or Hypalon, a synthetic geomembrane liner. MWG assessed the potential risks due to the age of the respective liners and created a program and timeline for replacing the ash ponds liners. MWG diligently executed its program to replace the liners at the Stations through the early 2000's and by 2010, MWG had relined seven of the eleven active ash ponds with a HDPE liner, which was the remediation-industry accepted approach. During the relining program, MWG found that its evaluations of the

old liners was incorrect –the historic poz-o-pac liners were in much better condition than had been anticipated.

Following the U.S. Environmental Protection Agency’s announcement that it would release regulations related to coal ash storage ponds, and combined with the information that the historic liners were largely intact, MWG waited to reline any additional ponds so as to avoid duplicating its efforts once the final rules were issued.

As part of the Stations’ operations, MWG analyzed the coal bottom ash stored in the ponds to determine the potential of metals to leach from the ash. The results of the analysis showed that very few metals leached from the coal bottom ash, and the concentrations of those metals were below the Illinois Class I groundwater standards.

During the same time period, in about 2010, the Illinois Environmental Protection Agency (“Illinois EPA”) began a program of reviewing coal ash handling at all Illinois coal stations, including the four MWG Stations. MWG voluntarily, and at its own cost, agreed to Illinois EPA’s request that MWG perform a hydrogeological assessment around the ash ponds at each of its Stations. The hydrogeological assessments included installing groundwater monitoring wells around the ash ponds at the MWG Stations to sample the groundwater near and downgradient from the ash ponds. Based upon the results of the hydrogeological assessments, Illinois EPA issued Violation Notices (“VNs”) to MWG alleging violations of the groundwater quality standards caused by the ash ponds. MWG disagreed that the groundwater sample results showed any actual contamination from the ponds. Nevertheless, following a significant exchange of information to resolve the VNs, MWG agreed to Compliance Commitment Agreements (“CCAs”) for each MWG station. As part of the CCAs, MWG relined the four remaining ash ponds at the Stations that had

yet to be relined, and established groundwater management zones (“GMZs”) and/or environmental land use controls (“ELUCs”) at the Stations.

Several of the Stations have areas that appear to contain historic ash, placed by the prior property operators. MWG analyzed the historic ash areas at three of the stations for leachable metals to determine if the ash was appropriate for beneficial use or could remain in place without impact. The results showed that the leachate from the historic ash in the fill areas met the Illinois Class I groundwater standards. Additionally, groundwater monitoring wells downgradient of a historic area at one of the stations showed that the coal ash area was not causing the groundwater to exceed the Illinois Class I groundwater standards.

Since its purchase of the Stations, MWG has worked diligently to prevent impact to groundwater at its Stations by investigating, maintaining and replacing the liners in the ash ponds. MWG voluntarily began analyzing the groundwater around its ash ponds, and voluntarily agreed to reline its remaining ash ponds with the industry-accepted material, HDPE, before required by any Federal or State regulations. MWG sampled the bottom ash and its ponds and sampled ash in historic areas to ensure the ash was not of concern. MWG continues to monitor the groundwater and submit the reports to the Illinois EPA. Following the implementation of the new Federal Coal Combustion Residual (“CCR”) Rules, MWG has been working diligently to timely comply with new rules per the established schedule.

### **III. BRIEF STATEMENT OF LAW**

#### **a. Complainants Cannot Establish That Coal Ash At the Station is Causing or Allowing Groundwater Contamination**

Complainants cannot establish that MWG has caused or allowed groundwater contamination from the coal ash at the Stations either inside the ash ponds or from historic ash areas. In order to find groundwater contamination in Illinois, Complainants need to establish that MWG caused or



threatened or allowed the discharge of contaminants so as to cause water pollution (defined as creating a nuisance or rendering waters harmful), or so as to violate regulations or standards. 415 ILCS 5/12(a) and 12(d), 35 Ill. Adm. Code 620.405, 620.115, and 620.301(a). Complainants point to exceedances of Illinois 620 standards, but cannot establish that MWG caused or allowed such exceedances. Instead, the groundwater results show that the alleged exceedances of the Class 1 groundwater standards at the Stations are random and inconsistent, which adds to the evidence relied on by MWG's expert to conclude that the ash ponds and the historic coal ash areas at the Stations are not a source. Further, MWG took careful actions and precautions after it began operations to establish that neither bottom ash in the ponds nor ash in the historic ash areas could be impacting groundwater. By taking these extensive measures, MWG did not allow any constituents to be released from the ash ponds. Additionally, MWG established GMZs pursuant to 35 Ill. Adm. Code 620.250, at three of its stations, meaning there are no violations of the Illinois Class I standards within the GMZs.

MWG also investigated potential receptors and risks from the sites and determined that the groundwater conditions at the Stations do not pose a risk to surface water receptors. As there is no risk to the surface waters, the groundwater conditions have not created a nuisance or rendered the waters harmful. MWG established ELUCs at all of the Stations to further eliminate risk. Finally, the U.S.EPA issued the Federal Coal Combustion Residual ("CCR") rules in 2015, which have additional regulations on the management of coal ash. MWG is diligently complying with the CCR rules in the established timeframes.

b. Complainants Cannot Establish that MWG has caused or allowed Open Dumping of Coal Ash

Complainants have not established, and the record does not support, a claim that MWG has caused or allowed open dumping of coal ash in the ponds or historic ash areas. The coal ash ponds

are not disposal sites, but instead are regulated basins operated pursuant to each Stations' NPDES permits. MWG relined its ponds and properly manages and operates its ponds to prevent leaks. The coal ash in the basins is removed for beneficial use or mine reclamation. MWG did not place the ash in historic ash areas on the site – those areas existed prior to MWG's operation and MWG sampled the areas to confirm there was no leaching to groundwater. Any coal ash used to build portions of the Stations and the berms for the ash ponds are part of the structural fill for the Stations. There is no evidence that the ash was “discarded” and thus it is not a “waste” as that term is defined in the Illinois Environmental Protection Act. Both State and Federal rules continue to allow coal ash to be used for beneficial reuse and as structural fill. *See* 415 ILCS 5/3.135 and 40 CFR 257.53.

#### **ORDER OF WITNESSES**

Complainants have elected to call most of MWG's witnesses adversely in Complainants' case-in-chief. Due to the unique nature of this lawsuit and to avoid wasting time of the Board and the witnesses, MWG has agreed to present its direct testimony of certain witnesses immediately following Complainants' questioning (and MWG's “cross”). This will avoid the need to recall witnesses later in the week during MWG's direct case. In the event Complainants elect not to call one of the witnesses that Complainants have previously identified, MWG reserves the right to call the witness in MWG's direct case. In addition, MWG will present Maria Race, Rich Gnat and John Seymour in MWG's case, upon the completion of Complainants' case-in-chief. MWG also reserves the right to recall its witnesses at the completion of Complainants' case-in-chief for the purpose of rebuttal.

**EXHIBIT LIST**

MWG's exhibit list, including demonstrative exhibits, is attached as Exhibit A to this memorandum. Based on the fact that the Board bifurcated this matter such that the damages/remedy phase (if necessary) will occur at a later date, MWG has not included exhibits specifically relating to damages or remedy at this time and reserves the right to do so. MWG reserves the right to supplement this list with exhibits used by Complainants or evidence to be used for cross-examination or rebuttal. The parties will attempt to reach agreement on authenticating exhibits for each witness prior to the witness's testimony.

**JOINT AGREED STIPULATIONS**

The Parties have filed their Joint Agreed Stipulations as a separate document.

Respectfully submitted,

MIDWEST GENERATION, LLC.

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

Jennifer T. Nijman  
Susan M. Franzetti  
Kristen L. Gale  
NIJMAN FRANZETTI LLP  
10 South LaSalle Street, Suite 3600  
Chicago, IL 60603  
312-251-5255

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**MIDWEST GENERATION, LLC’s PRE-HEARING MEMORANDUM**

**EXHIBIT A: MWG EXHIBIT LIST**

<b>MWG EXHIBITS</b>		
	<b>DOCUMENT NO.</b>	<b>DESCRIPTION</b>
1.	MWG13-15_1-34	Pond Characterizations for Midwest Generation Stations
2.	MWG13-15_36-65	LaFarge hauling information
3.	MWG13-15_142	Chart of Ash Pond relining
4.	MWG13-15_201-209	Caterpillar request for an ELUC at Joliet 29
5.	MWG13-15_293-305	July 15, 2009 Letter from Midwest Generation to Illinois Environmental Protection Agency (“Illinois EPA”)
6.	MWG13-15_364-383	Joliet 29 Response to the Violation Notice
7.	MWG13-15_384-406	Powerton Response to the Violation Notice
8.	MWG13-15_407-420	Waukegan Response to the Violation Notice
9.	MWG13-15_421-437	Will County Response to the Violation Notice
10.	MWG13-15_442	Joliet 29 Supplemental Response to the Violation Notice
11.	MWG13-15_452-491	Waukegan Supplemental Response to the Violation Notice
12.	MWG13-15_492-505	Powerton Supplemental Response to the Violation Notice

<b>MWG EXHIBITS</b>		
	<b>DOCUMENT NO.</b>	<b>DESCRIPTION</b>
13.	MWG13-15_506-521	Will County Supplemental Response to the Violation Notice
14.	MWG13-15_552-558	Compliance Commitment Agreement (“CCA”) acceptance for Powerton
15.	MWG13-15_559-564	The CCA acceptance for Will County
16.	MWG13-15_565-570	The CCA acceptance for Waukegan
17.	MWG13-15_571-576	The CCA acceptance for Joliet 29
18.	MWG13-15_599-610	The Environmental Land Use Control (“ELUC”) application for Waukegan
19.	MWG13-15_611-621	The Will County ELUC application
20.	MWG13-15_622-666	Will County Groundwater Management Zone (“GMZ”) application
21.	MWG13-15_667-711	Joliet 29 GMZ application
22.	MWG13-15_712-723	Powerton ELUC application
23.	MWG13-15_724-775	Powerton GMZ application
24.	MWG13-15_791	Illinois EPA’s approval of Will County ELUC
25.	MWG13-15_795-796	Will County Compliance Statement
26.	MWG13-15_797-798	Powerton Compliance Statement
27.	MWG13-15_801-802	Joliet 29 Compliance Statement
28.	MWG13-15_805-806	Waukegan Compliance Statement
29.	MWG13-15_813	Illinois EPA approval of the Will County Hydrogeologic Plan
30.	MWG13-15_814	Illinois EPA approval of the Joliet 29 Hydrogeologic Plan
31.	MWG13-15_815	Illinois EPA approval of the Waukegan Hydrogeologic Plan
32.	MWG13-15_816-7	Illinois EPA approval of the Powerton Hydrogeologic Plan
33.	MWG13-15_820	Email from M.Race to L.Dunaway regarding the Waukegan ash ponds
34.	MWG13-15_3253-3644	Powerton ENSR Phase II
35.	MWG13-15_5699-6039	Will County ENSR Phase II
36.	MWG13-15_6964-7080	Joliet 29 Hydrogeologic Assessment

<b>MWG EXHIBITS</b>		
	<b>DOCUMENT NO.</b>	<b>DESCRIPTION</b>
37.	MWG13-15_7081-7147	Powerton Hydrogeologic Assessment
38.	MWG13-15_7148-7229	Waukegan Hydrogeologic Assessment
39.	MWG13-15_7230-7322	Will County Hydrogeologic Assessment
40.	MWG13-15_7392	Waukegan Water Balance (Confidential Business Information – Non-Disclosable Information “ <i>NDI</i> ”)
41.	MWG13-15_7401	Powerton ash treatment system effluent
42.	MWG13-15_8233-8235	Leak Location Report for Pond 3S at Will County
43.	MWG13-15_8236-8255	Will County Pond 3S Field Summaries and Field Directives
44.	MWG13-15_8502-8536	Powerton 1998 Phase I
45.	MWG13-15_9583-9643	Application for Construction Permit to reline the Ash Surge Basin, Powerton
46.	MWG13-15_9670-9731	Application for Construction Permit to reline the Secondary Ash Basin, Powerton
47.	MWG13-15_9783-9840	Construction Permit application for the Bypass Basin, Powerton
48.	MWG13-15_10209-10212	Powerton Metal Cleaning Basin Construction Permit, 2009
49.	MWG13-15_10236-10310	Construction Permit application for Metal Cleaning Basin at Powerton
50.	MWG13-15_10772 to MWG13-15_10773	Annual NPDES Compliance Evaluation <i>NDI</i>
51.	MWG13-15_10812 to 10815	Powerton Construction permit for the Ash Surge Basin (2013)
52.	MWG13-15_10926 to 10947	Powerton Water Treatment Manuals
53.	MWG13-15_10948-10966	Powerton Bottom Ash Analytical Report, 2007
54.	MWG13-15_10977-10978	Powerton ash treatment system outfall, 2004
55.	MWG13-15_11302-11492	2004 Andrews Environmental Report
56.	MWG13-15_11798-11819	2014 groundwater reports from the Waukegan ComEd ELUC by URS
57.	MWG13-15_11574 to MWG13-15_11582	Waukegan purchase order of repair near ramp

<b>MWG EXHIBITS</b>		
	<b>DOCUMENT NO.</b>	<b>DESCRIPTION</b>
58.	MWG13-15_12003-12040	Waukegan 1998 ENSR Phase I
59.	MWG13-15_12713 to 12738	Tannery ELUC at Waukegan
60.	MWG13-15_12809-12820	KPRG and Associates, Inc. 2004, Waukegan
61.	MWG13-15_12827-12845	KPRG 2005 Liner inspection at Waukegan
62.	MWG13-15_12847	Type of coal burned – <i>NDI</i>
63.	MWG13-15_13087 to 13239	Phase I, 525 E. 135th St., Romeoville, Il, KPRG and Associates, Inc. 2009 <i>NDI</i>
64.	MWG13-15_13242 to 13421	Phase I, 525 E. 135th St., Romeoville, Il, KPRG and Associates, Inc., 2008 <i>NDI</i>
65.	MWG13-15_13775-13796	Patrick Borings of Former Ash Basin
66.	MWG13-15_14705-14732	Will County Bottom Ash Analytical Report, 2010
67.	MWG13-15_14745-14747	Will County Midland Standard Test Results
68.	MWG13-15_15178-15190	2014 Waukegan Ash Pond Inspection Report
69.	MWG13-15_16564	Illinois EPA's approval of the Will County GMZ
70.	MWG13-15_16907 to 16963	Joliet 29 Systems operations
71.	MWG13-15_17183	Illinois EPA's approval of Joliet 29 GMZ
72.	MWG13-15_18053-54	Joliet 29 Construction Permit for Ponds 1 and 2
73.	MWG13-15_18115 to 18131	Commonwealth Edison Company Joliet 29 Construction Documentation, 1978
74.	MWG13-15_18133 to 18189	Joliet 29, Pond 1 and 2 Construction Permit application
75.	MWG13-15_18192	Ruettiger, Tonelli & Assoc., Inc., 2007
76.	MWG13-15_18823-19015	KPRG Joliet 29 Ash removal report
77.	MWG13-15_19486- 19575	Joliet 29 July 25, 2005 ash report
78.	MWG13-15 19576 – 19668	Joliet 29 August 18, 2005 ash report
79.	MWG13-15_22863 to 22865	Smith, Michael J., Valdes 2009.

<b>MWG EXHIBITS</b>		
	<b>DOCUMENT NO.</b>	<b>DESCRIPTION</b>
80.	MWG13-15_23301-23597	Joliet 29 1998 ENSR Phase II
81.	MWG13-15_23608-23617	NRT Dec. 21, 2005 Impoundment Ranking
82.	MWG13-15_23618-23629	NRT Oct. 13, 2006 impoundment assessment
83.	MWG13-15_23630-23641	NRT Nov. 22, 2006 impoundment assessment
84.	MWG13-15_23649-23654	NRT technical memo, Dec. 2005
85.	MWG13-15_23721-23729	NRT impoundment assessment
86.	MWG13-15_23856-23866	Powerton 2013 ELUC
87.	MWG13-15_23974-75	Illinois EPA's approval for the Powerton ELUC
88.	MWG13-15_23977	Illinois EPA's approval of the GMZ for Powerton
89.	MWG13-15_24052	Illinois EPA's approval of Waukegan's ELUC
90.	MWG13-15_24221-24231	Valdes 2014 berm inspection at Waukegan
91.	MWG13-15_24264-24392	KPRG 2005 geotechnical analysis
92.	MWG13-15_24387-24392	KPRG 2005 geotechnical analysis, October 25, 2005 update
93.	MWG13-15_24569-24575	Purchase Order for Waukegan repair
94.	MWG13-15_24935 to 24954	Will County water processes maps and pond drawings
95.	MWG13-15_25138-25167	Joliet 29 ENSR 1998 Phase I
96.	MWG13-15_28184	Purchase Order for Will County repair
97.	MWG13-15_29023 to 29081	Application for Permit for the Will County South Ash Ponds 2 and 3
98.	MWG13-15_29100 to 29104	Pond drawings for the relining of Pond 3S, Will County
99.	MWG13-15_29165 to 29259	Will County No. 2 & 3 Ash Pond Liner Specification
100.	MWG13-15_29339	Map of Ponds 1N and 1S at Will County
101.	MWG13-15_29502- 29532	Will County 1998 Phase I
102.	MWG13-15_29797	Historical memo regarding Will County



<b>MWG EXHIBITS</b>		
	<b>DOCUMENT NO.</b>	<b>DESCRIPTION</b>
103.	MWG13-15_ 29936, 29975 - 29975	July 13, 2013 Waukegan NPDES permit testimony (excerpt)
104.	MWG13- 15_30105-30117	NPDES Permit No. ILR10 for Ponds 2S and 3S at Will County, 2008
105.	MWG13- 15_30421- 30424	Powerton Bypass Basin Construction Permit
106.	MWG13- 15_30429-30432	Powerton Secondary Ash Basin Construction Permit
107.	MWG13- 15_30588-30591	Will County Pond 2S Permit for Relining, 2013
108.	MWG13-15_32583	NRT, 2008 map of Pond 2S replacement
109.	MWG13- 15_33867-33997	NRT Construction Documentation for Pond 3 at Joliet 29
110.	MWG13- 15_33998-34157	Construction documentation for the Ash Surge basin at Powerton
111.	MWG13- 15_34158-34267	Construction documentation and for the Secondary Ash basin, Powerton
112.	MWG13- 15_34268- 34433	Construction documentation for Pond 2S at Will County
113.	MWG13-15_ 38735- 388806	Joliet 29 Patrick Engineering amended reports
114.	MWG13- 15_39445-39461	Powerton Hydrogeologic Assessment Plan
115.	MWG13- 15_39462-39478	Waukegan Hydrogeologic Assessment Plan
116.	MWG13- 15_39479-39495	Will County Hydrogeologic Assessment Plan
117.	MWG13- 15_39496-39512	Joliet 29 Hydrogeologic Assessment Plan
118.	MWG13-15_ 39530- 39619	Powerton Patrick Engineering amended reports
119.	MWG13-15_ 41395- 41493	Waukegan Patrick Engineering amended reports
120.	MWG13-15_ 42866- 42935	Will County Patrick Engineering amended reports
121.	MWG13- 15_43863-43864	Maria Race CV
122.	MWG13-15_43865	Christopher Lux CV
123.	MWG13-15_43866	Rebecca Maddox CV
124.	MWG13- 15_43868-43869	Richard Gnat CV
125.	MWG13-15_44147	KPRG and Associates, Inc. Inspection, 2014

<b>MWG EXHIBITS</b>		
	<b>DOCUMENT NO.</b>	<b>DESCRIPTION</b>
126.	MWG13-15_44122-44123	James DiCola CV
127.	MWG13-15_44124	Mark Kelly CV
128.	MWG13-15_44629-44630	Fred Veenbaas CV
129.	MWG13-15_44275 - MWG13-15_44278	Joliet 29 Ash Pond 3 Construction Permit
130.	MWG13-15_44599-44612	June 2014 Valdes ash pond berm inspection
131.	MWG13-15_44982	Maria Race email to Lynn Dunaway, July 26, 2013
132.	MWG13-15_45779-46054	Waukegan ENSR Phase II
133.	MWG13-15_46211-46594, MWG13-15_217-222	Retec Remediation Objectives Report for the Former Griess-Pfleger Tannery Site, 2002 Waukegan
134.	MWG13-15_46595 – 46711	Phase II Remedial Investigation Report at the Former Griess-Pfleger Tannery Site
135.	MWG13-15_46712-46926	Appendices to the Tannery Phase II
136.	MWG13-15_46927 – 47075	Appendices to the Tannery Phase II
137.	MWG13-15_47076 - 47291	Remedial Investigation Report – Phase I for the Former Griess-Pfleger Tannery Site, V. 1 of 3
138.	MWG13-15_47292 – 47492	Remedial Investigation Report – Phase I for the Former Griess-Pfleger Tannery Site, V. 2 of 3
139.	MWG13-15_47493-47711	Remedial Investigation Report – Phase I for the Former Griess-Pfleger Tannery Site, V. 3 of 3
140.	MWG13-15_47712-48402	Remedial Investigation Report for the Former Griess-Pfleger Tannery Site, Data
141.	MWG13-15_48403-48438	Survey maps of the Stations
142.	MWG13-15_48440-48492	Joliet 29 1998 ENSR Phase II
143.	MWG13-15_48604-48605	Will County Pond 2 and 3 Construction Permit to reline ponds
144.	MWG13-15_48636 to 48639	Repair of Will County pond liner
145.	MWG13-15_48644	Aerial of Waukegan Station
146.	MWG13-15_49099-49256	Construction documentation for the Metal Cleaning Basin and Bypass Basin

<b>MWG EXHIBITS</b>		
	<b>DOCUMENT NO.</b>	<b>DESCRIPTION</b>
147.	MWG13-15_49272-49285	Valdes May 29, 2015 inspection of the Waukegan berms
148.	MWG13-15_49257-49267	Will County soil removal records
149.	MWG13-15_49268-49267	Waukegan construction documentation, 1977
150.	MWG13-15_49286-49288	March 21, 2015 Email from Hayes to Chris Lux
151.	MWG13-15_49293-49298	September 14, 2010 NRT email and supporting calculations
152.	MWG13-15_49299 to 49340	Narejo, D.N. and Corcoran, G., 1996
153.	MWG13-15_49341-49361	GSE Installation Quality Assurance Manual
154.	MWG13-15_49362-49507	Joliet 29 Pond 1 and 2 Construction documentation
155.	MWG13-15_49742-49753	Joliet 29 Pond 3 effluent results
156.	MWG13-15_50093-50094	July 30, 2015 Illinois EPA letter to Powerton regarding CCA modification
157.	MWG13-15_50149-50170	USEPA CCR Rule Qualified Person Training
158.	MWG13-15_50256	ASTM, 1985
159.	MWG13-15_50258-50269	ASTM, 2014, Standard Guide for Design and Construction of Coal Ash Structural Fills
160.	MWG13-15_50270 - 50381	Carlson, 2010
161.	MWG13-15_50382 - 50392	Darilek, G.T., and Laine, D.I., 2001
162.	MWG13-15_50393-50401	Forget, B. Rollin, A.L. & Jacqueline, T., 2005
163.	MWG13-15_50547-50549	Calculations regarding hydrostatic uplift
164.	MWG13-15_50550	2015 Illinois EPA email between Lynn Dunaway and Jaime Rabins.
165.	MWG13-15_50551	Teleconference with Illinois EPA groundwater Unit Manager
166.	MWG13-15_50552	Teleconference with Illinois EPA Site Remediation Program Staff Member
167.	MWG13-15_50553 to 50554	Teleconference with M. Kelly
168.	MWG13-15_50555 to 50556	Teleconference with Harrison Estep
169.	MWG13-15_50557	Teleconference with Mitch Nowicki

<b>MWG EXHIBITS</b>		
	<b>DOCUMENT NO.</b>	<b>DESCRIPTION</b>
170.	MWG13-15_ 51557-51573	NRT June 17, 2008 Tech memo on the Waukegan ELUC
171.	MWG13-15_ 57517 – 57533	Joliet 29 boring logs, ENSR Phase II
172.	MWG’s NPDES permits (IL0064254, IL0002232, IL0002259, and IL0002208)	
173.	Beyond coal campaign	
174.	Expert Report of John Seymour, P.E., Nov. 2, 2015	
175.	Seymour Supplement to the Expert Report of John Seymour, P.E., February 29, 2016	
176.	Temporal Trend Testing Results Notes by J. Seymour, Feb. 29, 2016	
177.	May 27, 2010 ELUC at Joliet 29	
178.	EPRI, 2009	
179.	In the Matter of: Coal Combustion Waste (CCW) and Surface Impoundment Power Generating Facilities: Proposed New 35 Ill. Adm. Code 841, PCB R14-10, Excerpt of June 18, 2015 Public Hearing, p, 1, 223-227	
180.	Comp 3957-4596	Kosson, 2009
181.	Comp. 15059-15250	EPRI, 2006
182.	Comp. 17473	EPRI abstract
183.	Comp. 41735-41744	July 22, 2014 Opinion on presentation
184.	Comp. 49492-49497	Nov. 7, 2014 email

In addition, MWG includes as exhibits the groundwater monitoring results for all Stations from 2010 to 2017, which Complainants have previously included on their exhibit list. To avoid duplication, MWG has not listed all the documents here.

<b>MWG DEMONSTRATIVE EXHIBITS</b>	
1.	Photograph and poz-o-pac core sample from Will County Station
2.	Timeline of events related to coal ash and ash ponds at the four Stations
3.	Maps of the four Stations with the monitoring wells, groundwater flows, the groundwater management zones and the environmental land use controls depicted.
4.	Groundwater monitoring results summary updated to 2017
5.	Time v. concentration charts for all Stations, updated to 2017
6.	Samples of HDPE liner material, geotextile
7.	Expert powerpoint presentation