

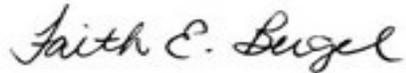
BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

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

NOTICE OF SERVICE

PLEASE TAKE NOTICE that I have served a true and correct copy of **COMPLAINANTS' AMENDED PRE-HEARING MEMORANDUM REGARDING REMEDIES** via electronic mail to the parties listed on the attached service list before 5:00 p.m.

Respectfully submitted,



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Wilmette, IL 60091
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Attorney for Sierra Club

Dated: April 22, 2023

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

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

**COMPLAINANTS’ AMENDED PRE-HEARING MEMORANDUM REGARDING
REMEDIES**

STATEMENT OF THE CASE

Sierra Club, Environmental Law & Policy Center (“ELPC”), Prairie Rivers Network, and Citizens Against Ruining the Environment (“CARE”) (collectively “Complainants”) file this pre-hearing memo to outline the appropriate remedies for the violations of the Environmental Protection Act found by the Board in its Orders of June 20, 2019 and February 6, 2020 and to introduce the evidence that will be presented by the Complainants in the hearing on remedies.

I. Summary of the Liability Findings of the Board.

In its order of June 20, 2019, the Board found and, in its Order of February 6, 2020, the Board affirmed, that Midwest Generation (“MWG”) violated 415 ILCS 5/12(a) at all four plants, 415 ILCS 12(d) at Powerton, and 415 ILCS 21(a) at all four plants since at least 2010. Order of the Bd. at 13 (Feb. 6, 2020). Violations of Section 21(a)’s prohibition on open dumping stem from the fact that MWG was aware of the presence of coal ash buried at the four stations before it began operations in 1999, and “allow[ed] the coal ash to be consolidated in the fill areas around ash ponds and in historical coal ash storage areas at all four Stations.” Interim Op. and Order of the Bd. at 91

(June 20, 2019).

The Board also identified violations of its Part 620 groundwater quality regulations at all four plants. Interim Op. and Order of the Bd. at 92 (June 20, 2019). These violations were stayed by the establishment of Groundwater Management Zones (“GMZs”) at three plants in 2013. Order of the Bd. at 8-9 (Feb. 6, 2020). However, the GMZs did not affect liability for Part 620 groundwater quality standard violations between 2010 and 2013 at the three plants with GMZs, and did not affect Part 620 violations at Waukegan, which has no GMZ. Moreover, the GMZs did not affect MWG’s ongoing liability for Section 12(a) violations, which are based on multiple lines of evidence including but not limited to Part 620 violations. As explained by the Board, “[c]ompliance with a permitted GMZ would provide . . . immunity from violating the Part 620 standards but not Section 12(a).” Interim Op. and Order of the Bd. at 77 (June 20, 2019); *see also id.* at 85 (finding Section 12(a) violations at all four plants due to boron and sulfate concentrations that exceed 90th percentile background levels). The GMZs did not affect MWG’s ongoing liability for Section 21(a) open dumping violations or MWG’s liability for Section 12(d) violations at Powerton. Individual violations identified by the Board are described in Appendix A.

II. Relief Sought to Prevent Further Violations and Damage to Public Health and the Environment.

The law applicable to remedies and civil penalties is spelled out in the Illinois Environmental Protection Act. 415 ILCS 5. Regarding remedies, 415 ILCS 5/33(c) provides that:

In making its orders and determinations, the Board shall take into consideration all the facts and circumstances bearing upon the reasonableness of the emissions, discharges or deposits involved including, but not limited to:

- (i) the character and degree of injury to, or interference with the protection of the health, general welfare and physical property of the people;
- (ii) the social and economic value of the pollution source;
- (iii) the suitability or unsuitability of the pollution source to the area in which it is located, including the question of priority of location in the area involved;

- (iv) the technical practicability [*15] and economic reasonableness of reducing or eliminating the emissions, discharges or deposits resulting from such pollution source; and
- (v) any subsequent compliance.

Not all of these 33(c) factors are applicable here because the pollution at issue is almost exclusively the legacy of previous economic activity that has already occurred. This means that, for instance as to Section 33(c)(ii), none of the four coal-fired power plants has social or economic value except Powerton because Powerton is the only plant still operating as a coal plant and using ponds for active ash management. Even at Powerton, any remaining social or economic value from the still-operating coal boilers is not relevant to the question of cleaning up legacy coal ash because Complainants are not seeking to close any coal-fired boilers as part of the remedy in this case. While the coal combustion waste remains at the sites and continues to inflict injury on public health and the environment, whatever positive value there was in past operation of the coal-fired boilers that might be considered by the Board is simply no longer present and need not be considered in shaping a remedy. And at Powerton, the remaining value of the coal-fired boilers should only be assessed against the cost of ongoing treatment of newly created coal ash at the Powerton site.

Also, as to Section 33(c)(iv), Complainants agree with MWG that MWG's "financial condition is not relevant to a determination of economic reasonableness of a remedy," because this section of the "Illinois Environmental Protection Act ("Act") does not consider the financial capacity of the [respondent]." MWG's Resp. in Opp'n to Compl.'s Mot. *In Lim.* to Exclude Portions of Gayle Koch's Expert Rep. at 5-6 (Mar. 4, 2022). Thus, the financial condition of MWG is not relevant to a determination whether Complainants' requested remedy is economically reasonable.

A. Need for a Study of the Nature and Extent of Contamination.

MWG's ongoing failure to collect basic information regarding the extent of contamination requires robust site characterizations at all four plants. MWG has failed to adequately investigate the coal ash waste dumped at the sites. The Board acknowledged as much in its decision on liability. Interim Op. and Order of the Bd. at 27, 57, 67, 91 (June 20, 2019). A site characterization will provide information as to the volume of waste on the site and the extent of groundwater contamination caused by the waste. This is necessary for the Board to consider the "economic reasonableness of reducing or eliminating the emissions, discharges or deposits resulting from such pollution source[.]" Section 33(c)(iv).

It is impossible to identify the precise cost of a remedy without knowing the volume of coal ash waste at the site. In turn, not being able to quantify the cost of a remedy hinders the ability to establish that the remedy is economically reasonable as provided by Section 33(c)(iv). This also impacts application of the Section 42(h) civil penalties assessment, discussed in more detail below, which requires consideration of "the duration and gravity of the violation[.]" 415 ILCS 5/42(h)(1). The lack of monitoring that would delineate the full scope of groundwater contamination from the ash areas outside of the ponds hinders any effort to establish the "gravity of the violation." *Id.* The expert testimony of Mark A. Quarles, a professional geologist, will be offered by the Complainants to show the need for the collection of data regarding the nature and extent of the coal combustion waste present at each site. It is well within the authority of the Board to order a nature and extent study or site characterization when there is inadequate information as to the volume, type, or contamination impacts of waste at a site. *Getty v. Village of Riverside*, No. 86-181, 1989 WL 97039, at *7-8 (Ill. Pol. Control Bd. 1989).

B. Presumption of Removal.

The Board found violations of the Section 21(a) open dumping prohibition at all four sites, noting that "MWG did allow consolidation of coal ash by failing to remove it from the fill areas

and historical coal ash storage areas, and by allowing contaminants to leak into the environment.” Interim Op. and Order of the Bd. at 91 (June 20, 2019) (emphasis added). Since the Section 21(a) violations stem from MWG’s failure to remove the coal ash from historical fill areas, it logically follows that the presumptive remedy to cure the violations is removal of the coal ash. Absent information on the scope of ash dumped outside of the ponds and the extent of groundwater contamination, the only remedy that can cure the violations would be removal of all the coal ash. When waste has been dumped at an unpermitted location, it is reasonable to require removal of the waste to a properly permitted location (e.g., a permitted and lined landfill). *People v. J & F Hauling*, No. 02-21, 2003 WL 728350, at *5 (Ill. Pol. Control Bd. 2003). To the extent that the Board finds that a nature and extent study is not necessary, the Board should order MWG to cease its open dumping by removing the coal ash from the historical fill areas. Finally, removal of ash from the ponds is required upon closure of the ponds because the Compliance Commitment Agreements that MWG agreed to for each of the four sites prohibit the use of the ash ponds as permanent disposal sites. Interim Op. and Order of the Bd. at 24, 37-38, 52-53, 65; Hr’g Exs. 626, 636, 647, 656 (June 20, 2019).

III. Civil Penalties.

Separately and apart from the question of what remedy is appropriate, penalties are required as a matter of law to create a disincentive to violating the law. As a baseline for calculating civil penalties, 415 ILCS 5/42(a) authorizes the imposition of a \$50,000 penalty for a violation of the Illinois Environmental Protection Act (including violations of regulations, such as the Part 620 Groundwater Quality Standards) and authorizes an additional \$10,000 per day for violations that span multiple days. The Illinois Environmental Protection Act provides factors that the Board is authorized to consider when refining the amount of a civil penalty. 415 ILCS 5/42(h). Those factors are:

- (1) the duration and gravity of the violation;
- (2) the presence or absence of due diligence on the part of the respondent in attempting to comply with requirements of this Act and regulations thereunder or to secure relief therefrom as provided by this Act;
- (3) any economic benefits accrued by the respondent because of delay in compliance with requirements, in which case the economic benefits shall be determined by the lowest cost alternative for achieving compliance;
- (4) the amount of monetary penalty which will serve to deter further violations by the respondent and to otherwise aid in enhancing voluntary compliance with this Act by the respondent and other persons similarly subject to the Act;
- (5) the number, proximity in time, and gravity of previously adjudicated violations of this Act by the respondent;
- (6) whether the respondent voluntarily self-disclosed, in accordance with subsection (i) of this Section, the non-compliance to the Agency;
- (7) whether the respondent has agreed to undertake a "supplemental environmental project" . . .; and
- (8) whether the respondent has successfully completed a Compliance Commitment Agreement under subsection (a) of Section 31 of this Act to remedy the violations that are the subject of the complaint.

Section 42(h) of the Act goes on to require that the civil penalty be “at least as great as the economic benefits, if any, accrued by the respondent as a result of the violation, unless the Board finds that imposition of such penalty would result in an arbitrary or unreasonable financial hardship.” In other words, the penalties must be greater than the cost MWG avoided by violating the law. *See, e.g., People v. ESG Watts*, No. 96-233, 1998 WL 54022, at *6 (Ill. Pol. Control Bd. 1998). If the Board does require a specific remedy of MWG as Complainants believe is necessary to remediate ongoing pollution, this avoided cost will be a measure of the financial benefit MWG gained by delaying implementation of that remedy. But even if the Board accepts MWG’s arguments that no remedy is needed at this stage, it should still impose a penalty that eliminates MWG’s financial benefit from noncompliance with Illinois law.

A. Maximum Penalty.

The Board has stated that the maximum penalty “is a natural or logical benchmark from which to begin considering factors in aggravation and mitigation of the penalty amounts.” *IEPA v. Barry*, No. 88-71, 1990 WL 271319, at *48 (Ill. Pol. Control Bd. 1990). As outlined in Appendix

A, the statutory maximum penalty accounting for all violations of Sections 12(a), 12(d), and 21(a) at the four sites¹ would total \$414,070,000.

MWG has argued successfully that it should not provide information regarding the assets of its corporate owner, NRG, because MWG has not claimed any financial constraints on its ability to provide relief or pay applicable civil penalties. MWG's Resp. in Opp'n to Compl.'s Mot. *In Lim.* to Exclude Portions of Gayle Koch's Expert Rep. at 4 (Mar. 4, 2022) ("No one, not MWG nor Ms. Koch, has stated that MWG has an inability to pay for any remedy or penalty."). Accordingly, the statutory maximum penalties could be assessed by the Board.

B. Minimum Penalty.

415 ILCS 5/42(h) makes clear that the Board should assess as a fine at least the costs avoided through the violation unless it would impose a financial hardship on the violator, a situation that MWG has insisted should not be part of the Board's penalty determination. MWG's Resp. in Opp'n to Compl.'s Mot. *In Lim.e* to Exclude Portions of Gayle Koch's Expert Rep. at 6 (Mar. 4, 2022) ("If . . . Mr. Shefftz's opinions on whether MWG can afford Complainants' compliance costs and penalties [are excluded], then Ms. Koch's responsive opinions on MWG's future financial condition, prospects of coal plants, and ability to afford, are no longer required.").

Complainants' expert, Jonathan Shefftz, will provide testimony to the Board relevant to the determination of a penalty for Respondent's delayed compliance with Illinois Law. Specifically, this testimony will focus on the importance of penalizing Respondent by an amount equal to at least the economic benefit Respondent accrued by delaying its cleanup costs. As Mr. Shefftz will explain, determining this value requires as a first step an assessment of what the expected cleanup costs will be. However, because the exact extent of required site remediation activities is not yet

¹ Among other conservative assumptions explained in Appendix A, the total penalty calculation omitted all pollutant- and well-specific violations, and also omitted all violations of Part 620 Groundwater Quality Standards.

final (nor do we believe it should be until a nature and extent study is completed for each site), Mr. Shefftz will present an estimate of what the economic benefit of noncompliance will be under a single eventuality, i.e., in the event that the Board orders Respondent simply to remove all coal ash from each of the four sites. The figures used by Mr. Shefftz for the cost of removal are based on an estimate provided by Respondents' previous expert, Dr. Jim Kunkel, and also incorporate certain baseline assumptions provided by Complainants' counsel.

Complainants are not offering Dr. Kunkel as an expert witness because we believe a nature and extent study is necessary to determine the scope of cleanup that is needed at the four sites; Mr. Shefftz has only relied on Dr. Kunkel's recommended remedy to identify MWG's economic benefit of noncompliance in the event that the Board requires MWG to implement Dr. Kunkel's suggested remedy. In that sense, Mr. Shefftz's testimony is offered primarily for the purpose of offering a methodology to the Board of calculating economic benefit.

Ideally, Complainants would be in the position of offering a determinative estimation of MWG's economic benefit resulting from its deferred cleanup of the waste; but, because Respondent has failed to investigate much of the coal ash waste dumped outside of impoundments on the site (e.g., by failing to investigate the volume of ash dumped outside of ponds or the extent of groundwater contamination caused by ash outside of ponds), it is impossible to identify the precise cost of any proposed remedy. MWG's lack of investigation makes identification of the scope of the remedy also difficult and means that the most appropriate remedy for each ash area cannot be identified yet; various remedies are still options. Thus, although Mr. Shefftz's testimony contains a final monetary figure that is titled "economic benefit of noncompliance," it should not be interpreted as an immutable figure. Rather, as Mr. Shefftz will explain, his testimony delineates a best-in-class method for calculating the economic benefit of noncompliance, which can and should be adjusted depending on what the Board determines the final clean-up activities must

be. Complainants believe the Board would also be within its authority to require immediate and complete cleanup of all four sites, and in that event offer Mr. Shefftz's testimony as setting a floor for what the penalty amount should be.

If the Board opts to order Respondent to conduct a nature and extent study at the four sites, it might reasonably table the question of a specific financial penalty until a final site remediation plan is identified, which should include the cost of such remediation as well as a detailed timeline of anticipated expenditures.

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Respondents)	

COMPLAINANTS' FINAL ORDER OF WITNESSES

Complainants propose calling these witnesses in the order in which they appear below.

1. Mark Quarles
2. Jonathan Shefftz
3. Richard Gnat
4. Sharene Shealey

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COMPLAINANTS’ EXHIBIT LIST

Complainants reserve the right to identify further evidence and exhibits for cross-examination, impeachment, or rebuttal. Complainants reserve the right to use stipulated exhibits or exhibits admitted through an earlier witness with a subsequent witness without referencing or repeating them on Complainants’ exhibit list. Complainants reserve the right to use exhibits introduced by Respondent. Complainants reserve the right to use exhibits admitted into the record during the liability-phase hearing without listing them on Complainants’ exhibit list. All exhibits are subject to objection unless agreed to, and neither party waives any objection it may have to an exhibit that is not on the agreed list.

	Party’s Bates No.	Doc. No.	Description	Date	Witness	Objection Where Identified
1.	Comp.	65921-66010	Evaluation and Modeling of Cap Alternatives at Three Unlined Coal Ash Impoundments	Sep-01	Quarles	
2.	Comp.	66012	Letter from Mark Holbrook to Randy Jones	10-Feb-20	Quarles	
3.	Comp.	66013-66027	2018 CCR Annual Groundwater Monitoring and Corrective Action Report: Indianapolis Power & Light Company, Harding	31-Jan-19	Quarles	

			Street Generating Station			
4.	Comp.	66028-66067	Report on Corrective Measures Assessment, Harding Street Generating Station, Indianapolis, Indiana	Sep-19	Quarles	
5.	Comp.	66068-66069	Coal Combustion Residue Management in Illinois	Sep-10	Quarles	
6.	Comp.	67340-67380	Use of Monitored Natural Attenuation at Superfund, RCRA CA, and UST Sites	1-Aug-15	Quarles	
7.	Comp.	67391-67473	Use of Monitored Natural Attenuation for Inorganic Contaminants in Groundwater at Superfund Sites	Aug-15	Quarles	
8.			Expert Opinion of Mark A. Quarles, P.G., Sierra Club, Environmental Law and Policy Center, Prairie Rivers Network, and Citizens Against Ruining the Environment v. Midwest Generation, LLC	Jan-21	Quarles	
9.		-	Expert Opinion, Rebuttal Report of Mark A. Quarles, P.G., Sierra Club, Environmental Law and Policy Center, Prairie Rivers Network, and Citizens Against Ruining the Environment v. Midwest Generation, LLC	Jul-21	Quarles	
10.	MWG_13-15	76150-76176	Non-Disclosable Midwest Generation, LLC and Subsidiaries, Consolidated	December 31, 2018 and 2017	Shefftz	Subject to Objection: authenticity,

			Financial Statements, 2017 and 2018			foundation, hearsay, and relevance
11.	MWG_13-15	76177-76201	Non-Disclosable Midwest Generation, LLC and Subsidiaries, Consolidated Financial Statements, 2018 and 2019	December 31, 2019 and 2018	Shefftz	Subject to Objection: authenticity, foundation, hearsay, and relevance
12.	MWG_13-15	108251-108252	Non-Disclosable Midwest Generation, LLC and Subsidiaries, Consolidated Balance Sheets, 2018 and 2019	December 31, 2020 and December 31, 2019	Shefftz	Subject to Objection: authenticity, foundation, hearsay, and relevance
13.			Expert Opinion on Economic Benefit of Noncompliance and Economic Impact of Penalty Payment and Compliance Costs	25-Jan-21	Shefftz	
14.			Supplemental and Rebuttal: Expert Opinion on Economic Benefit of Noncompliance and Economic Impact of Penalty Payment and Compliance Costs	16-Jul-21	Shefftz	
15.			Second Supplemental and Rebuttal: Expert Opinion on Economic Benefit of Noncompliance and Economic Impact of Penalty Payment and Compliance Costs	26-Oct-21	Shefftz	
16.			Expert Report on Groundwater Contamination by James R. Kunkel, Ph.D., P.E.	1-Jul-15	Shefftz	

Electronic Filing: Received, Clerk's Office 04/21/2023

17.	MWG_13-15	71841-71844	Closure Plan, Former Ash Basin, Powerton Station	Apr-18	Shealey	
18.	MWG_13-15	71847-71849	Closure Plan, Former Ash Basin, Powerton Station	May-19	Shealey	
19.	MWG_13-15	73136-73139	Letter to IEPA Re: IEPA Program: COALIN – Invoices Addressed to Midwest Generation, LLC for CCR Surface Impoundments	29-Jan-20	Shealey	
20.	MWG_13-15	73176-73178	Letter to IEPA Re: Invoices to Midwest Generation, LLC for CCR Surface Impoundments	29-Apr-20	Shealey	
21.	MWG_13-15	77743-77874	Letter to IEPA Re: Violation Notice: Midwest Generation, LLC, Waukegan Generating Station	16-Sep-20	Shealey	
22.	MWG_13-15	77920-78362	Will County Generating Station, Demonstration for a Site-Specific Alternative Deadline to Initiate Closure	30-Nov-20	Shealey	
23.	MWG_13-15	78366-78816	Waukegan Generating Station, Demonstration for a Site-Specific Alternative Deadline to Initiate Closure	30-Nov-20	Shealey	
24.	MWG_13-15	78820-79314	Powerton Generating Station, Demonstration for a Site-Specific Alternative Deadline to Initiate Closure	30-Nov-20	Shealey	
25.	MWG_13-15	116758-117216	Application for Retrofit Construction Permit, Powerton - Bypass Basin	15-Jul-22	Shealey	
26.			AS 2021-002, Midwest Generation,	11-May-21	Shealey	

			LLC's Petition for an Adjusted Standard and Finding of Inapplicability for the Powerton Station			
27.			AS 2021-003, Illinois Environmental Protection Agency's Recommendation for Waukegan Station	31-Oct-22	Shealey	
28.			R 2020-19, Pre-filed Testimony of Sharene Shealey on Behalf of Midwest Generation, LLC	27-Aug-20	Shealey	
29.	MWG_13-15	18823-18990	Letter with attachments from Gnat to Briette Re Coal Ash and Slag Removal - Joliet #29	6-Dec-05	Gnat	
30.	MWG_13-15	70527-70601	Alternate Source Demonstration, CCR Groundwater Monitoring, Powerton Generating Station - Former Ash Basin	9-Mar-20	Gnat	
31.	MWG_13-15	108719-109154	Application for Operating Permit, Joliet #29 Generating Station	29-Oct-21	Gnat	Subject to Objection: relevance
32.	MWG_13-15	109638-110275	Application for Initial Operating Permit, Powerton Generating Station - Ash Bypass, Ash Surge, and Former Ash Basin	29-Oct-21	Gnat	Subject to Objection: relevance
33.	MWG_13-15	110625-111264	Application for Initial Operating Permit, Waukegan Generating Station	29-Oct-21	Gnat	Subject to Objection: relevance
34.	MWG_13-15	116332-116757	Application for Initial Construction Permit, Joliet #29 Generating Station - Pond #2	28-Jan-22	Gnat	Subject to Objection: relevance
35.	MWG_13-15	117229-118125	AS 2021-001, Midwest Generation, LLC's Petition for	28-Jan-22	Gnat	

			Adjusted Standard and Finding of Inapplicability for the Joliet 29 Station			
36.	MWG_13-15	124547-125119	Application for Construction Permit, Powerton Generating Station - Former Ash Basin	26-Oct-22	Gnat	Subject to Objection: relevance
37.	MWG_13-15	125120-125604	Application for Initial Operating Permit, Powerton Generating Station - Metal Cleaning Basin	31-Mar-22	Gnat	Subject to Objection: relevance
38.	MWG_13-15	125605-126095	Application for Initial Operating Permit, Will County Generating Station - Pond 1N & Pond 1S	31-Mar-22	Gnat	Subject to Objection: relevance
39.		Koch Dep. Ex. 5	Lessons Learned: Using Decision Analysis to Estimate Toxic Tort Liabilities, NR&E Winter 2006	Winter, 2006	Koch	
40.	MWG13-15_	83328-83331	Presentation slides: "Tips for Chemical 17 Engineers from Over 25 Years in Litigation"	9-Apr-12	Koch	

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AMENDED AGREED EXHIBIT LIST

	Party	Party's Bates No.	Doc. No.	Description	Date	Witness
1.	Comp.	MWG_13-15	63811-63873	CCA Quarterly Groundwater Monitoring Results – Third Quarter 2019 Joliet #29	7-Oct-19	Gnat
2.	Comp.	MWG_13-15	64906-65221	CCR COMPLIANCE ANNUAL GROUNDWATER MONITORING and CORRECTIVE ACTION REPORT – 2018 ASH BY-PASS BASIN AND ASH SURGE BASIN	31-Jan-19	Gnat
3.	Comp.	MWG_13-15	65456-65856	CCR COMPLIANCE ANNUAL GROUNDWATER MONITORING and CORRECTIVE ACTION REPORT – 2019 ASH BY-PASS BASIN AND ASH	31-Jan-20	Gnat

				SURGE BASIN, January 31, 2020		
4.	Comp.	MWG_13-15	66096-66203	CCA Quarterly Groundwater Monitoring Results – Third Quarter 2019 Powerton	7-Oct-19	Gnat
5.	Comp.	MWG_13-15	67097-67289	CCR COMPLIANCE ANNUAL GROUNDWATER MONITORING and CORRECTIVE ACTION REPORT, Waukegan – 2018	31-Jan-19	Gnat
6.	Comp.	MWG_13-15	68260-68923	CCA Quarterly Groundwater Monitoring Results – Third Quarter 2019 Waukegan	7-Oct-19	Gnat
7.	Comp.	MWG_13-15	69436-69609	CCR COMPLIANCE ANNUAL GROUNDWATER MONITORING and CORRECTIVE ACTION REPORT – 2018, Will County	31-Jan-19	Gnat
8.	Comp.	MWG_13-15	69946-70017	CCA Quarterly Groundwater Monitoring Results – Third Quarter 2019 Will County	7-Oct-19	Gnat
9.	Comp.	MWG13-15	70527–70601	Alternative Source Demonstration for Former Ash Basin	9-Mar-20	Gnat
10.	Comp.	MWG_13-15	72568-72667	CCR COMPLIANCE ANNUAL GROUNDWATER MONITORING and CORRECTIVE ACTION REPORT – 2019 Waukegan	31-Jan-20	Gnat
11.	Comp.	MWG_13-15	79493-79771	Waukegan Field investigation	23-Nov-20	Gnat
12.	Comp.	MWG_13-15	108447-108482	Joliet 29 Alternative Source Demonstration Joliet	11-Oct-21	Gnat

13.	Comp.	MWG_13-15	113953-114056	Federal CCR Compliance Annual Groundwater Monitoring and Corrective Action Report - 2021, Joliet #29 Generating Station	31-Jan-22	Gnat
14.	Comp.	MWG13-15	115224-115272	Data Summary Posting, Joliet #29 Generating Station	2021-2022 (various dates)	Gnat
15.	Comp.	MWG13-15	115601-115662	Data Summary Posting, Waukegan Generating Station	2021-2022 (various dates)	Gnat
16.	Comp.	MWG_13-15	115942-116018	CCR Groundwater Monitoring Report, Powerton Generating Station Monitoring Results - Ash By-Pass Basin & Ash Surge Basin - Second Quarter 2022	26-Jul-22	Gnat
17.	Comp.	MWG_13-15	116082-116117	CCR Detection Groundwater Monitoring Report, Waukegan Generating Station, Fed. 1st Semi annual 2022	27-Jul-22	Gnat
18.	Comp.	MWG13-15	116118-116145	CCR Detection Groundwater Monitoring Report, Joliet 29 Generating Station Fed. 1st Semi annual 2022	26-Jul-22	Gnat
19.	Comp.	MWG13-15	116146-116240	Assessment Monitoring Will County Station	27-Jul-22	Gnat
20.	Comp.	MWG13-15	116241-116331	Alternate source demonstration, Will County	28-Mar-22	Gnat
21.	Comp.	MWG13-15	118134-118235	CCA Annual report, Joliet 29	20-Jan-22	Gnat
22.	Comp.	MWG13-15	118236-118378	CCA Annual report, Powerton	14-Jan-22	Gnat
23.	Comp.	MWG13-15	118379-118488	CCA Annual report, Will County	20-Jan-22	Gnat
24.	Comp.	MWG13-15	118489-118627	CCA Annual report, Waukegan, Jan. 2022	20-Jan-22	Gnat

25.	Comp.	MWG_13-15	_119367-120525	AS 2021-001, Midwest Generation LLC's Petition for Adjusted Standard and Finding of Inapplicability for the Joliet 29 Station	11-May-21	Shealey
26.	Comp.	MWG13-15	120526-120614	AS 2021-001, Recommendation of the IEPA, Joliet 29 Station	22-Sep-21	Shealey
27.	Comp.	MWG13-15	120615-122671	AS 2021-001, Recommendation of the IEPA Joliet 29 Station	4-Feb-22	Shealey
28.	Comp.	MWG13-15	123236-124087	AS 2021-003, Midwest Generation LLC's Petition for an Adjusted Standard and Finding of Inapplicability for the Waukegan Station	11-May-21	Shealey
29.	Comp.	MWG13-15	124088-124116	AS 2021-003; Midwest Generation, LLC's Amended Petition for an Adjusted Standard and a Finding of Inapplicability for Waukegan Station	17-Sep-21	Shealey
30.	Comp.	MWG13-15	124132-124139	AS 2021-002, Midwest Generation, LLC's Amended Petition for an Adjusted Standard and a Finding of Inapplicability for Powerton Station	11-Nov-21	Shealey
31.	Comp.	MWG_13-15	64321-64555	CCR Compliance Annual Groundwater Monitoring and Corrective Action Report – 2018 Former Ash Basin, Powerton Generating Station	31-Jan-19	Gnat
32.	Comp.	MWG_13-15	70018-70091	CCR Compliance Annual Groundwater Monitoring and Corrective Action Report – 2019, Will County	1/31/2019 [sic]	Gnat

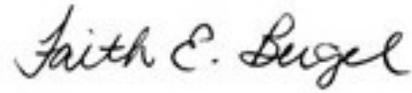
33.	Comp.	MWG_13-15	76486-76562	Quarterly Groundwater Monitoring Report, Will County Generating Station, Letter to Ms. Andrea Rhodes from Kristina Cameron, Station Director	13-Jul-20	Gnat
34.	Comp.	MWG_13-15	76563-76742	Quarterly Groundwater Monitoring Report, Powerton Generating Station, Letter to Ms. Andrea Rhodes from Dale Green, Station Manager	13-Jul-20	Gnat
35.	Comp.	MWG_13-15	79775-79903	Annual and Quarterly Groundwater Monitoring Report, Joliet #29 Generating Station - Fourth Quarter 2020	21-Jan-21	Gnat
36.	Comp.	MWG_13-15	79904-80049	Annual and Quarterly Groundwater Monitoring Report, Powerton Generating Station - Fourth Quarter 2020	15-Jan-21	Gnat
37.	Comp.	MWG_13-15	80050-80156	Annual and Quarterly Groundwater Monitoring Report, Will County Generating Station - Fourth Quarter 2020	21-Jan-21	Gnat
38.	Comp.	MWG_13-15	80157-80354	Annual and Quarterly Groundwater Monitoring Report, Waukegan Generating Station - Fourth Quarter 2020	21-Jan-21	Gnat
39.	MWG		MWG13-15_24960-25127	KPRG 2005 Coal Ash and Slag Removal – Joliet 29 Station	Dec. 6, 2005	Gnat
40.	MWG		MWG13-15_48711 – 48843	Powerton First Quarter 2015 Quarterly Report	April 24, 2015	Gnat
41.	MWG		MWG13-15_79315	Joliet 29 NE area KPRG Inspection, 2018	Nov. 5, 2018	Gnat
42.	MWG		MWG13-15_79316	Joliet 29 NE area KPRG Inspection, 2019	Nov. 4, 2019	Gnat
43.	MWG		MWG13-15_79317	Joliet 29 NE area KPRG Inspection, 2020	Nov. 6, 2020	Gnat

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44.	MWG		MWG 13-15_ 79341-79356	Joliet 29 Boring Logs	Nov. 12, 2020	Gnat
45.	MWG		MWG 13-15_ 79341-79442	Joliet 29 Soil Samples and Map of boring locations	April 8, 2020	Gnat
46.	MWG		MWG13-15_81195-81293	Eurofins Analytical Report, Waukegan Generating Station, Laboratory Job ID: 180-116605-1	March 12, 2021	Gnat
47.	MWG		MWG13-15_ 108284 – 108393	KPRG 2021 Photos of J29 NE Area	2021 (not dated)	Gnat
48.	MWG		MWG13-15_ 108394	J29 NE area KPRG Inspection, 2021	Nov. 1, 2021	Gnat
49.	MWG		MWG13-15_ 112736 – 113393	Waukegan ELUC Wells GW data	2017-2020 (various dates)	Gnat
50.	MWG		MWG13-15_ 113394-113952	Waukegan MW-8 and MW-9 results	2017-2020 (various dates)	Gnat
51.	MWG		MWG13-15_ 122672-123235	MWG's Response in Support of its Joliet 29 Petition for Adjusted Standard, PCB AS21-01	March 24, 2022	Shealey
52.	MWG		MWG13-15_ 124376-124383	IPCB Order on MWG's Petition for Adjusted Standard for Powerton, PCB AS21-2	Feb. 17, 2022	Shealey
53.	MWG		MWG13-15_ 124452	Joliet 29 NE area KPRG Inspection, 2022	Nov. 3, 2022	Gnat
54.	MWG		MWG13-15_ 124453-124455	Joliet 29 Boring Logs	April 2, 2020	Gnat
55.	MWG		MWG13-15_ 124456-124479	Joliet 29 Soil Sample Results	April 8, 2020	Gnat
56.	MWG		MWG13-15_ 124480-124540	Joliet 29 Soil Sample Results	Nov. 27, 2020	Gnat

Dated: April 22, 2023

Respectfully submitted,



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Appendix A

Appendix A: Statutory Maximum Penalty Calculations

The following calculations apply the statutory maximum penalty formula found at 415 ILCS 5/42(a), which authorizes the imposition of a \$50,000 penalty for a violation of the Illinois Environmental Protection Act (including violations of regulations, such as the Part 620 Groundwater Quality Standards) and authorizes an additional \$10,000 per day for violations that span multiple days. The following calculations are conservative in that they omit:

- All Part 620 groundwater standard violations
- All Section 12(a) violations after the fourth quarter of 2021

More broadly, these calculations omit all well- or pollutant-specific violations and instead assume that each power plant will, on any given day, have no more than one Section 12(a) violation, one Section 12(d) violation, and one Section 21(a) violation, regardless of how many wells and pollutants exceed groundwater standards or statewide background concentrations.

Joliet 29 – Section 12(a) penalties. The Board found MWG liable for Section 12(a) violations caused by the coal plant's (1) exceedances of Part 620 groundwater quality standards for sulfate and TDS and (2) exceedances of the 90th percentile of background levels for sulfate. The record will show that since at least December 6, 2010, the first date for which groundwater monitoring results are available, groundwater at Joliet 29 has consistently exceeded the 90th percentile background concentration of sulfate in one or more wells while also routinely exceeding the Part 620 standards for sulfate and/or TDS. The number of days between December 6, 2010 and the most recent reported result (November 15, 2021) is 3,997 days, thus resulting in a \$40,010,000 statutory maximum penalty (\$50,000 for the first day of violations + (3996 x \$10,000)).

Powerton – Section 12(a) penalties. The Board found MWG liable for Section 12(a) violations caused by the coal plant's exceedances of Part 620 groundwater quality standards and exceedances of the 90th percentile background levels for sulfate and boron. The record will show that since at least December 6, 2010, one or more wells on every quarterly groundwater monitoring event exceeded the 90th percentile of background for sulfate or boron, while also routinely exceeding Part 620 standards for arsenic, boron, sulfate, and TDS. The number of days between December 6, 2010 and November 29, 2021 is 4,011 days, thus resulting in a \$40,150,000 maximum penalty (\$50,000 for the first day of violations + (4,010 x \$10,000)).

Powerton – Part 12(d) penalties. The Board found MWG liable for violations of Section 12(d) for a period of two to three months. Using two months (60 days) as a conservative assumption, the maximum penalty would be \$640,000 (\$50,000 for the first day of violations + (59 x \$10,000)).

Waukegan – Section 12(a) penalties. The Board found MWG liable for Section 12(a) violations caused by the coal plant's exceedances of Part 620 groundwater quality standards for various pollutants and exceedances of the 90th percentile of background levels for boron and sulfate. The record will show that since at least October 25, 2010, through the most recent sampling data from November 5, 2021 (4,029 days), every quarterly groundwater quality sample at a combination of wells has exceeded the Part 620 standards for boron, sulfate or TDS and/or the 90th percentile of background concentrations of boron or sulfate, thus resulting in a \$40,330,000 statutory maximum penalty (\$50,000 for the first day of violations + (4,028 x \$10,000)).

Will County – Section 12(a) penalties. The Board found MWG liable for Section 12(a) violations caused by the coal plant’s exceedances of Part 620 groundwater quality standards and exceedances of the 90th percentile of background levels for sulfate and boron. The record will show that since at least December 13, 2010, through the last available sample result on November 23, 2021 (3,998 days), every quarterly groundwater quality sample at a combination of wells exceeded the 90th percentile of background for sulfate and/or boron, while also routinely exceeding the Part 620 standards for antimony, arsenic, boron, sulfate, or TDS. The maximum penalty is therefore \$40,020,000 (\$50,000 for the first day of violations + (3,997 x \$10,000)).

Section 21(a) Violations. The Board found MWG liable for violations of Section 21(a)’s prohibition on open dumping at all four plants. The Board found that MWG was aware of the presence of coal ash buried at the four stations before it began operations in 1999, and that 2005 borings at the sites confirmed the presence of coal ash. The Board found that MWG has not taken any action to remove the coal ash buried at the sites. Based on the knowledge of coal ash buried at the site in 1999 and 2005 and lack of any removal activities at any of the four coal plants, the civil penalty calculations assume that the violations began on January 1, 2006 and continue to the present (April 21, 2023). Thus, the total number of days in violation is 6,319 and the total maximum penalty is \$63,230,000 for each power plant (\$50,000 for the first day of violations + 6,318 x \$10,000).

The following table summarizes the forgoing penalty calculations, which sum to \$414,070,000.

Plant	Violation	start date	end date	days in violation	statutory	
					maximum penalty	
Joliet 29	Section 12(a)	12/6/2010	11/15/2021	3997	\$	40,010,000
Joliet 29	Section 21(a)	1/1/2006	4/21/2023	6319	\$	63,230,000
Powerton	Section 12(a)	12/6/2010	11/29/2021	4011	\$	40,150,000
Powerton	Section 12(d)			60	\$	640,000
Powerton	Section 21(a)	1/1/2006	4/21/2023	6319	\$	63,230,000
Waukegan	Section 12(a)	10/25/2010	11/5/2021	4029	\$	40,330,000
Waukegan	Section 21(a)	1/1/2006	4/21/2023	6319	\$	63,230,000
Will County	Section 12(a)	12/13/2010	11/23/2021	3998	\$	40,020,000
Will County	Section 21(a)	1/1/2006	4/21/2023	6319	\$	63,230,000
Total					\$	414,070,000

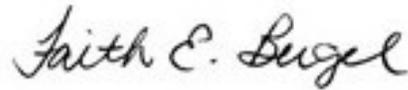
CERTIFICATE OF SERVICE

The undersigned, Faith E. Bugel, an attorney, certifies that a true copy of the foregoing **NOTICE OF SERVICE** was filed electronically on April 22, 2023 with the following:

Don Brown,
Clerk of the Board Illinois Pollution Control Board
100 West Randolph St Suite 11-500
Chicago, IL 60601

And that I have served electronically upon the individuals named on the attached Service List a true and correct copy of **COMPLAINANTS' AMENDED PRE-HEARING MEMORANDUM REGARDING REMEDIES** before 5 p.m. Central Time on April 22, 2023 to the email addresses of the parties on the attached Service List. The entire filing package, including attachments, is 29 pages.

Respectfully submitted,



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