

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,)	
)	
Respondents)	

NOTICE OF FILING

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

Attached Service List

PLEASE TAKE NOTICE that I have filed today with the Illinois Pollution Control Board the attached **CITIZEN GROUP’S RESPONSE BRIEF** in the above-captioned proceeding, copies of which are served on you along with this notice.

Respectfully submitted,

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Dated: August 30, 2018

Attorney for Sierra Club

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CITIZEN GROUPS' RESPONSE BRIEF

Complainants Sierra Club, Environmental Law and Policy Center, Prairie Rivers Network and Citizens Against Ruining the Environment (collectively, "Citizens Groups") respectfully submit this Response Brief for the Illinois Pollution Control Board's ("Board") consideration in this case.

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INTRODUCTION

The evidence presented at the Hearing provides the Board with ample support to find the following: First, coal ash is causing groundwater contamination at the four Midwest Generation (“MWG”) power plants (Joliet 29, Powerton, Waukegan, and Will County Electric Generating Stations (collectively, the “plants”)) at issue in this case. All parties, and both experts, including MWG’s expert witness John Seymour, agree that boron and sulfate are good indicators of coal ash contamination. Groundwater monitoring at all four power plants shows levels of boron and sulfate at levels exceeding both background levels and Illinois Class I groundwater quality standards. These groundwater monitoring results provide the clearest evidence that coal ash is the cause of groundwater contamination.

Second, since MWG bought the plants in 1999, MWG has been aware of coal ash in unlined repositories at all four power plants. MWG was also aware of the possibility that these coal ash repositories were contaminating groundwater, even before it implemented its groundwater monitoring program in 2010.¹ Yet MWG failed to take any action that would have removed the coal ash from the ground, failed to prevent that coal ash from contaminating groundwater, and failed to investigate the extent and nature of the coal ash outside of the onsite ash ponds.

Third, there is no support for MWG’s legal argument that, if a facility takes “extensive precautions” to prevent groundwater contamination, it can avoid liability for its groundwater quality standards. MWG Br. At 43 The exception from liability for “extensive precautions” only applies to cases of vandalism or where some other intervening cause leads to the contamination.

¹ See Respondent Midwest Generation, LLC’s Post-Hearing Brief (hereafter “MWG Br.”) at App. A, Statement of Facts (hereafter “SOF”) 492 (“MWG predicted that there likely was some historic contamination that would be detected in groundwater, and the results would not establish anything about the ponds.”).

Perkinson v. Illinois Pollution Control Board, 543 N.E.2d 901, at 904 (Ill. App. 3d Dist.1989). In the present case, there was no vandalism and no intervening cause. Instead, coal ash contamination of groundwater is exclusively the fault of MWG.

Fourth, whatever precautions MWG did undertake, they were neither extensive nor sufficient. MWG has ignored coal ash outside of its ash ponds, and has persisted in using sub-standard ash ponds. As a direct result of MWG's lack of precautions and failure to exercise control over the sources of contamination, and as conceded by MWG's expert, the groundwater contamination at Powerton, Waukegan and Will County power plants has not improved over time.

Fifth, MWG's opening Post-Hearing Brief contains factual misrepresentations that diminish MWG's credibility. For example, on numerous occasions MWG argued that the Class I groundwater quality standards were not exceeded at its four power plants, while their own evidence showed numerous exceedances of those standards. MWG also argued that Complainants failed to identify the source of groundwater contamination, yet Complainants provided substantial evidence showing that onsite coal ash was causing groundwater contamination.

MWG's opening Post-Hearing Brief also contained legal misrepresentations that diminish their credibility. For example, MWG argued for an incredibly narrow interpretation of the prohibition of groundwater contamination that is unsupported by the statute or relevant case law. MWG also argued that Section 33 of the 415 ILCS 5 Illinois Environmental Protection Act ("Act") require the Board to find that MWG's groundwater contamination was "unreasonable." However, MWG failed to acknowledge that the cases it cited involved another sections of the

Act, and that it was those other sections² – not 415 ILCS 5/33 – that required the Board to find such pollution unreasonable.

I. MWG MISAPPLIES SEVERAL LEGAL STANDARDS

In its opening Post-Hearing Brief, despite nearly twenty years of operating the four sites that continue to cause groundwater pollution, MWG claims that it cannot be liable for that pollution. MWG presents several theories to absolve itself, each addressed in the following sections, but what unites them is that they all rely on the misinterpretation and misapplication of applicable Illinois law, and/or the misrepresentation of facts that were established during the Hearing in this case.

The facts in this case are clear: MWG caused and allowed water pollution at all four power plants because it was aware of onsite coal ash, including coal ash in unlined areas outside of its ash ponds, and did not take steps to stop coal ash from contaminating the groundwater. Facts proved at the hearing demonstrate that coal ash is the cause of the groundwater pollution at each power plant and that MWG failed to adequately exercise its control over the plants to prevent such groundwater pollution. At bottom, MWG seems to be taking the position that it should not be liable for groundwater pollution because groundwater pollution is a reasonable and acceptable side effect of electric power generation. See, e.g., MWG Br. at 61-64 (“[S]ince taking over the Stations[,] MWG acted reasonably.”). This is simply not a legally defensible position, and in any case MWG did not act “reasonably.”

a. Illinois Law Prohibits both Causing and Allowing Groundwater Pollution

MWG’s first theory supporting its assertion that it cannot have caused or allowed water pollution in violation of Section 12(a) is that it cannot be liable because some of the conduct that

² 415 ILCS 5/9(a), 5/24

created the contamination took place before MWG took ownership of the power plants. *See, e.g.*, MWG Br. at 35, 40-41; MWG's SOF 119, 245. Yet MWG cites no case law in support of this legal proposition, which is unsurprising because no such authority exists. To the contrary, Section 12(a) of the Illinois Environmental Protection Act ("Act") provides that "No person shall... [c]ause or threaten *or allow* the discharge of any contaminants into the environment in any State so as to cause or tend to cause water pollution in Illinois, either alone or in combination with matter from other sources...". 415 ILCS 5/12(a) (emphasis added).

Thus, under the plain meaning of the Section 12(a) standard, which disallows causing *or allowing* groundwater pollution, as well as the most directly applicable case law on the issue, property owners can be liable for failing to remediate ongoing contamination from previously placed waste. "[T]he current owner may be responsible for contamination even if the current owner did not actively dispose of the contamination." *People v. Inverse Investments, LLC*, PCB 11-79, 2012 WL 586821, at *9 (IPCB Feb. 16, 2012); *see also Michel Grain*, PCB 96-143, 2002 WL 2012414, at *3 ("a respondent with control over a site may be found in violation even if the respondent did not actively dispose of contaminants at the site"); *State Oil Co.*, PCB 97-103, 2003 WL 1785038, at *15 ("the fact that the Abrahams and Millstream did not initially cause the pollution at the site is immaterial with regard to their responsibilities and duties as owners and operators of the property."); *Meadowlark Farms*, 308 N.E.2d 851, at 836-37 (1974) (finding owner of premises liable under Section 12(a) even though owner did not operate the source of pollution on their premise); *People v. John Prior*, PCB 97-111, 1997 WL 735036, at *6-7 (IPCB Nov. 20, 1997) (rejecting respondents' argument that it is not liable for water pollution because it was not an owner of the property during the time of the violations).

b. Illinois Law Prohibits both Causing and Allowing Open Dumping

MWG makes similar arguments supporting its claim that it did not cause or allow open dumping in violation of Section 21(a), in this case citing the *Rawe* case for the proposition that “the term ‘cause’ cannot be applied retroactively to actions that occurred prior to the effective date of the Act because it deals with a certain course of conduct.” MWG Br. at 57 (citing *Illinois EPA v. Rawe*, PCB AC92-5, 1992 WL 315780, (IPCB Oct. 16, 1992)). The retroactive liability language in *Rawe*, however, only applies to the “cause” prong of the Act, and it is only limited to actions occurring before enactment of the Act.

MWG’s behavior, specifically its inaction after it was first on notice of unlined coal ash deposits as part of its purchase of the plants in 1999, and MWG’s subsequent failure to prevent coal ash from causing water pollution, falls under the “allow” prong of the Act (its active disposal of coal ash in substandard coal ash ponds falls under the “cause” prong). Furthermore, the MWG conduct rendering it liable under Section 21(a) all occurred after enactment of the Act.

This conclusion comes squarely within the holding in *Rawe* when the Court stated that:

A violation of Section 21 of the Act can also be found for “allowing” litter. The Board has previously held that “allow” includes present inaction on the part of the landowner to remedy a previously caused violation. (*EPA v. Robert Wheeler* (January 10, 1991) AC 90–42, *EPA v. A.J. Welin* (May 13, 1982), PCB 80–125, 47 PCB 07.) The Board has held that passive conduct amounts to acquiescence sufficient to find a violation of Section 21(a) of the Act. (*EPA v. Dobbeke et al.* (August 22, 1972), PCB 72–130, 5 PCB 219.) . . . Present inaction on the part of the landowner to remedy the disposal of waste that was previously placed on the site, constitutes “allowing” litter in that the owner allows the illegal situation to continue.

Rawe, PCB AC92-5, 1992 WL 315780, at *4. In addition, nowhere in its brief does MWG point to *any* evidence suggesting that all “historic” ash was placed in its current locations before the effective date of the Act.

Similarly, MWG cannot escape liability by pointing to the previous owner. The Board

has held that inaction on the part of a party, and failure remedy a previously caused violation, renders that party liable for such violation. *See, e.g., Illinois EPA v. Robert Wheeler*, PCB AC90-42, 1991 WL 43851, (IPCB Jan.10, 1991) (finding Wheeler liable because he was on notice of repeated illegal dumping on his site but did nothing to stop it); *Illinois EPA v. A.J. Welin*, PCB 80-125, 1982 WL 25677, (IPCB May 13, 1982) (finding Welin liable even when assuming Welin had no knowledge of the illegal dumping occurring on his site). “Assuming good faith on the part of Welin and total lack of knowledge about any dumping activities, he is still liable for violations of the Act.” *Id. at* *4.

The Board has held that passive conduct amounts to acquiescence sufficient to find a violation of Section 21(a) of the Act. *Illinois EPA v. Dobbke et al.*, PCB 72-130, 1972 WL 5616, (IPCB Aug. 22, 1972). In *Dobbke*, the Board stated:

Although Mr. Dobbke denies encouraging the illegal dumping his course of conduct as the owner of the property seems rather passive. He did not build a fence. Not once did he call the sheriff. *Such inaction by the owner of the land implies acquiescence* and is hardly calculated to put a halt to the illegal dumping.

Id., at *2 (emphasis added),.

The Board has held that, when a party is aware of a source of contamination on its property but does not remove that source, the party will be liable under the Act. *See Gonzalez v. IPCB*, 2011 Ill. App. 093021 1st Dist.at 773, (Petitioners violated the Act when they “were aware of the preexisting fly-dumped waste at the time of the purchase but failed to remove it for over 14 months”). In *State Oil Co.*, the Board held a property owner liable because they failed to remove contaminated soil:

The Anests allowed the waste to be consolidated on the Site when they failed to conduct any soil removal. Although the Anests tested the underground storage tanks and made repairs to one tank, the Anests did not address the removal of the waste from the Site.

State Oil Co., PCB 97-103, 2003 WL 1785038, at *19.

In *Freeman Coal Mining Corp., v. Ill. Pollution Control. Bd.*, 313 N.E.2d 616, at 621 (Ill. App. 5th Dist. 1974), the court stated that the Act is *malum prohibitum* and no proof of guilty knowledge or *mens rea* is necessary for a finding of guilt. Present inaction on the part of a landowner to remedy the disposal of waste that was previously placed on the site constitutes “allowing” litter, in that the owner allows the illegal situation to continue. See *IEPA v. Rawe*, PCB AC92-5, 1992 WL 315780 at *4 (Oct. 16, 1992).

In *Rawe*, the Board concluded that the presence of a source of contamination (in that case, autos) on the site prior to Respondents taking control of the property, combined with the failure of the Respondents to take action sufficient to remedy the contamination, demonstrated a violation of the “allow” language of Section 21 of the Act. *IEPA v. Rawe*, PCB AC92-5, 1992 WL 315780 at *5 (Oct. 16, 1992). Similarly, in *People v. Hendricks*, waste tires had been on the property since the Respondent acquired the property and the site was not a sanitary landfill. *People v. Hendricks*, PCB 97-31, 1998 WL 343516, (June 17, 1998). The Board concluded that this conduct was sufficient to establish that the Respondent had violated Sections 21(a) of the Act by “allowing open dumping of waste tires” *Id.*, at *6.

In the present case, the presence of both ash ponds and historic ash fill on the sites, combined with MWG’s inaction, is sufficient to find that MWG caused and allowed water pollution at all four power plants and caused and allowed opening dumping at Waukegan, Will County, and Powerton.

c. Finding MWG Liable for Violating the Illinois Law Prohibiting Causing or Allowing Water Pollution Would Not Constitute Strict Liability

MWG attempts to avoid liability by asking the Board to draw, and then reject, a strained connection to the completely separate area of law on “strict liability.” MWG Br. at 47. MWG is

correct that this is not a case about strict liability. Instead, Illinois law requires the Board to find that a person has capability or control over the source of the pollution or open dumping in order to impose liability under the Act's prohibitions on this conduct. *See People v. Charles*, 2011 WL 1049280, at *8, quoting *Fiorini*, 574 N.E.2d 612 at 623 (1991) (“The analysis applied by courts in Illinois for determining whether an alleged polluter has violated the Act is whether the alleged polluter exercised sufficient control over the source of the pollution.”).

To be clear, this standard does not require the same level of knowledge or intent that other statutes require: “[i]t is uncontested that ‘knowledge or intent is not an element to be proved for a violation of the Act.’” *People v. Charles*, 2011 WL 1049280, at *8 citing *Fiorini*, 574 N.E.2d 612 at 618 (1991); *see also Freeman*, 621 Ill. App. 3d 157, 5th Dist. at 163 (1974). Accordingly, “lack of knowledge is not a defense.” *People v. Davinroy*, 618 N.E.2d 1282, at 1286 (1993), citing *Meadowlark Farms, Inc. v. PCB*, 17 Ill. App. 3d 851, 308 N.E.2d 829 (5th Dist. 1974). However, “the fact that guilty knowledge is not a necessary element of proof under the Act does not mean that alleged polluters are under a theory of strict liability.” *Davinroy*, 618 N.E.2d 1282, at 1286 (1993).

The question in this case is different from strict liability; the question before the Board is whether the Respondent exercised sufficient control over the source of the pollution. *Phillips*, discussed in *People v. Charles*, provides a good example of lack of sufficient control providing a defense to a charge of a 12(a) violation:

For example, in *Phillips*, the owner of a chemical tank car was found not to have exercised sufficient control over the source of the pollution to be found liable for causing, threatening, or allowing a poisonous gas release that occurred when the train derailed. The tank car was under the control of the transporting railroad company at the time of derailment.

People v. Charles, 2011 WL 1049280, at *8 citing *Phillips*, 72 Ill. App. 3d at 220-21 (2011).

In short, liability is imposed where the respondent has control of the source, even where intention to pollute is absent. Here MWG has not put any evidence into the record suggesting that either the ponds or the historic ash fill areas were being operated by another entity or in another entity's possession since 1999; therefore, there is no analogy to cases like *Phillips*. MWG was in control of the "premises" where the pollution occurred and continues to occur, and has known about multiple sources of contamination for nearly twenty years. This is sufficient for liability under the Illinois Environmental Protection Act.

d. Finding MWG Liable for Violating the Illinois Law Prohibiting Causing or Allowing Water Pollution Does Not Require Identifying the Relative Contribution of Each Onsite Ash Storage and Disposal Area

Uncertainty about the relative contributions of various onsite coal ash storage or disposal areas does not circumvent liability for violations of 12(a) of the Act either. All that is required for liability is to establish that an entity is the owner of a site, and that the site contains a source of contamination that is polluting groundwater. *Inverse Investments*, PCB 11-79, 2012 WL 586821, *9 (PCB Feb. 16, 2012) (holding that owner of site can be liable for contamination even if it did not actively dispose of the contamination). Complainants need not show how much contamination came from each coal ash pond or disposal area, especially when the evidence shows that it is more than one of these contributors. Again, Illinois law establishes that liability will be imposed when a Respondent has control of the "premises where the pollution occurred." *People v. Charles*, 2011 WL 1049280, at *9 (2011).

The cases cited by MWG in support of its claim that the contribution of each specific onsite ash storage or disposal area must be known are distinguishable. MWG Br. at 46-47. In *Craig v. IPCB*, 376 N.E.2d 1021, 4th Dist. (1978), it was undisputed that there was an animal manure release from Respondents' farm along with a fish kill. *Id.* at 1021-22. However, the

bacteria in the vicinity of the fish kill were from human waste. *Id.* at 1023. The human bacteria indicated that the source was a source other than Respondents' farm. Thus a conclusion that the animal waste release from the Respondents' farm caused or contributed to the fish kill was not supported by the evidence. *Id.* In the present case, all of the evidence indicates that coal ash is the source of the pollution. MWG has provided very little evidence of off-site sources of coal ash contamination (except for one very speculative piece of evidence regarding properties adjacent to the Waukegan site). The evidence shows that at each of the four facilities, coal ash from the facility, whether it is ponds, landfills, or other coal ash outside of ponds, is a contributing source of the groundwater contamination.

MWG also relies on *Lonza v. IPCB*. MWG Br. at 48-49. In *Lonza*, there were two separate and independent facilities that were potential sources of the air pollution in the form of odors. *Lonza v. IPCB*, 315 N.E.2d 652, 3rd Dist. at 652 (1974). The testimony failed to establish that *Lonza* was contributing even in small part to the air pollution. *Id.* at 655-57. There was no discussion in the *Lonza* case of any "indicators" that could link the odors to one facility or the other, nor was there any evidence showing that either facility was contributing to the odors. *Id.* at 655-57. Here, in contrast, the evidence – including the sworn testimony of MWG's own expert – shows that at each of the four facilities, coal ash from the facility, whether it is ponds, landfills, or other coal ash outside of ponds, is a contributor to the groundwater contamination. MWG's facilities are indisputably contaminating groundwater.

e. The Contamination at the Four MWG Sites Presents Unacceptable Risks

MWG next seeks to avoid liability by insisting that it should not be punished because "groundwater conditions do not pose a risk." MWG Br. at 29. As an initial matter, this statement is false. The groundwater has exceeded Illinois Class I groundwater standards for coal ash

constituents over 1,300 times since monitoring began and continues to regularly exceed Illinois groundwater standards. *See* Complainant Citizen Group’s Post-Hearing Brief (hereafter “Comp. Br.”), Appendix A. Illinois Class I groundwater standards are health-based, and represent a level that is intended to prevent adverse health effects. As Complainants observed in their initial post-hearing brief, the Board has stated that the Class I Potable Resource Groundwater quality standards were originally set at levels “equal to the USEPA’s Maximum Concentration Levels,” which are themselves intended to be protective of human health. 42 USC § 300g-1(b)(4)(A)-(B); *see also* *People v. CSX*, PCB 07-16, 2007 WL 2050813, at *17 (2007).³ Class I standards were intended to fulfill “the principle that groundwaters that are naturally potable should be available for drinking water supply without treatment.” *In Re: Groundwater Quality Standards: 35 Ill. Adm. Code 620*, PCB R89-014(B), Final Order at 18 (Nov. 7, 1991).⁴ In short, if groundwater exceeds Class I groundwater standards, as it does at the four MWG coal plants, then by definition that groundwater poses an unacceptable risk to human health. *See* Comp. Br. at 9 – 10. Finally, Complainants do not in any way concede that the groundwater contamination at the four sites poses no risk to surface water receptors.⁵

³ Referring to evidence in the record that there were exceedances of Groundwater Quality Standards, “The Board has found through the rulemaking process that exceedances of those levels are potentially dangerous to public health.” *People v. CSX*, PCB 07-16, 2007 WL 2050813, at *17 (2007).

⁴ *See also* the Illinois Groundwater Protection Act, 415 Ill. Comp. Stat. Ann. 55/8 (“The Agency ... shall propose regulations establishing comprehensive water quality standards which are specifically for the protection of groundwater. In preparing such regulations, the Agency shall address, to the extent feasible, those contaminants which have been found in the groundwaters of the State and which are known to cause, or are suspected of causing, cancer, birth defects, or any other adverse effect on human health according to nationally accepted guidelines”) (emphasis added).

⁵ Complainants have not engaged with MWG’s expert on the issue of surface water risks because surface water risks are not relevant to the question of whether MWG has contaminated the groundwater. However, Complainants note here that they do not agree with Mr. Seymour’s analytical methods or conclusions. Among other problems with his analysis, Mr. Seymour failed to evaluate risks associated with sediment in areas where groundwater seeps into surface water. Sediment is known to be an important risk pathway in the context of coal ash disposal areas near surface water. *See, e.g., Tennessee Clean Water Network v. Tennessee Valley Authority*, 273 F.Supp.3d 775, 810-811 (Aug. 4, 2017) (“Sediment, [plaintiff’s expert Dr. Dennis] Lemly explained, is a significant route by which fish and aquatic life are exposed to coal ash pollutants, in particular for sediment-dwelling creatures such as catfish, frogs, and crayfish”); *id.* at 795-798 (discussing sediment sampling results at the Tennessee Valley

Furthermore, the D.C. Circuit Court of Appeals recently determined that all unlined surface impoundments present unacceptable risks and must be closed. None of the coal ash ponds at the four MWG plants meet federal liner criteria, and so they are all, for purposes of federal regulation, “unlined.” Hr’g Tr. Feb. 2, 143:5-148:4; 40 CFR § 257.71(3).⁶ As originally promulgated, the coal ash rule allowed unlined coal ash ponds to operate until they caused statistically demonstrable groundwater contamination (or violated other criteria of the coal ash rule). 40 CFR § 257.101. The D.C. Circuit Court of Appeals recently determined that this was not sufficiently protective, as all unlined impoundments present a “reasonable probability of adverse effects on health or the environment”:

The record shows ... that the vast majority of existing impoundments are unlined, that unlined impoundments have a 36.2 to 57 per cent chance of leakage at a harmfully contaminating level during their foreseeable use, and that the threat of contamination from unlined units exceeds the EPA’s cancer risk criteria and thus “generally will be considered to pose a substantial present or potential hazard to human health and the environment.” It is inadequate under RCRA for the EPA to conclude that a major category of impoundments that the agency’s own data show are prone to leak pose “no reasonable probability of adverse effects on health or the environment,” simply because they do not already leak.

Utility Solid Waste Activities Group, et al., v. EPA, No. 15-1219, 2018 WL 4000476, D.C. Cir. Ct., *slip op.* at *8 (Aug. 21, 2018) (internal citations omitted). The Court went on to vacate the coal ash rule to the extent that it allows the continued operation of unlined impoundments. *Id.* at 24. Since all of the MWG coal ash ponds have liners that do not meet the requirements of the

Authority’s Gallatin Fossil Plant, and showing that coal ash constituents including boron, sulfate and arsenic were elevated in shoreline sediment samples). Regarding potential surface water exposures, without conceding that Mr. Seymour used the correct surface water screening criteria or evaluated an adequate number of constituents, it is worth noting that Mr. Seymour found numerous instances of groundwater exceeding the “surface water effects values” that he selected, for multiple constituents at all four sites. Ex. 903, Appendix B, Tables B-2-1 through B-5-3. Complainants are not at all convinced by Mr. Seymour’s attempts to explain these results away. The coal ash contamination at the four sites may very well pose a risk to aquatic life or human health via surface water.

⁶ The federal coal ash rule states that “[a]n existing CCR [coal combustion residual] impoundment is considered to be an existing unlined CCR surface impoundment if either (i) The owner or operator of the CCR unit determines that the CCR unit is not constructed with a liner that meets [the rule’s liner criteria]; or (ii) The owner or operator fails to document whether the CCR unit was constructed with a liner that meets [the rule’s liner criteria].” 40 CFR § 257.71(3).

federal rule, they will all have to be closed. This is because the ash ponds, by their very nature, pose an unreasonable risk.

Along the same lines, MWG attempts to minimize the risk of groundwater pollution by suggesting that the coal ash is not “hazardous.” See, e.g., MWG Br. at SOF 42. This statement is misleading at best, and is for all practical purposes false. The U.S. EPA has not determined whether, for purposes of federal solid waste law, coal ash is “hazardous.” 80 Fed. Reg. at 21318-21320. But the EPA has readily acknowledged that coal ash contains hazardous substances:

EPA’s damage cases and risk assessments indicate there is significant potential for CCR landfills and CCR surface impoundments to leach hazardous constituents into groundwater, impair drinking water supplies and cause adverse impacts on human health and the environment. Indeed, groundwater contamination is one of the key environmental and human health risks EPA has identified with CCR landfills and CCR surface impoundments.

80 Fed. Reg. 21396 (emphasis added).⁷ In addition, one of the criteria that the EPA uses to determine whether to list a waste as a “hazardous waste” is the existence of so-called “damage cases,” or instances of damage caused by a waste. Regarding this criterion, EPA observed that:

Damage cases generally provide extremely potent evidence in hazardous waste listings. In this regard, EPA notes that the number of damage cases collected for this [coal ash] rulemaking (157) is by far the largest number of documented cases in the history of the RCRA program.

80 Fed. Reg. at 21452. In short, while the EPA has not yet determined whether coal ash is “hazardous waste” for purposes of federal solid waste law, the Agency has acknowledged that coal ash contains hazardous substances, and has also acknowledged that these substances create serious risks.

To summarize the foregoing, coal ash leaches hazardous substances into groundwater, coal ash contamination is water pollution, and coal ash pollution poses very real threats to the environment and human health; MWG is simply wrong to suggest otherwise.

⁷ Complainants note that EPA acknowledged risks from both impoundments and landfills containing coal ash.

f. Complainants Need Not Demonstrate that Contamination Creates a Risk or Nuisance to Establish Unlawful Groundwater Pollution

MWG's claim that the contamination does not present a risk or nuisance is not only wrong, it is also beside the point. The Board is being asked whether MWG is causing or allowing water pollution. The answer to that question is unambiguous: MWG is causing and allowing water pollution by failing to control the contamination emanating from onsite coal ash, as can be seen by evidence of leached constituents in the groundwater at levels that exceed Illinois Groundwater Quality Standards.

MWG argues that it is not enough to show exceedances of GWQS for a 12(a) violation. MWG Br. at 52. It further argues that "it is not sufficient to show the mere presence of a source of water pollutants on the land," because a source must first be "likely to create a nuisance or to render the waters harmful, detrimental or injurious." MWG Br. at 52. This line of argument is simply incorrect. The Environmental Protection Act, Section 12(a) states:

"No person shall: (a) Cause or threaten or allow the discharge of any contaminants into the environment in any State so as to cause or tend to cause water pollution in Illinois, either alone or in combination with matter from other sources, or so as to violate regulations or standards adopted by the Pollution Control Board under this Act."

In arguing that Complainants must present evidence that proves the elements found in the definition of water pollution, MWG ignores the "or" in 12(a), and instead melds the two separate prongs of 12(a) together. "So as to cause or tend to cause water pollution" is the first prong and the second prong provides an alternative that states "so as to violate regulations or standards adopted by the Pollution Control Board under this Act." The definition of "water pollution" only

applies under that the first prong.⁸ Under the second prong, Complainants need only show a violation of regulations or standards, such as the Groundwater Quality Standards found at 35 IAC §620.410. Complainants note that the evidence is sufficient to find a violation of both prongs, since groundwater that exceeds Groundwater Standards is by definition “harmful or detrimental or injurious” to human health. *See People v. CSX*, PCB 07-16, WL 2050813, at *17 (July 12, 2007) (“The Board has found through the rulemaking process that exceedances of those levels are potentially dangerous to public health. Therefore, unlike the Bliss case, here the record does establish the quantity and concentration of the contaminant that was likely to create a nuisance or render the waters harmful, detrimental, or injurious.”). Nevertheless, for the sake of argument, we address MWG’s contention below.

Respondent relies upon three main cases to make its arguments here, each of which can be clearly distinguished. The first, *Jerry Russell Bliss, Inc. v. Illinois EPA*, is distinguishable on the facts. 485 N.E.2d 1154, 1157-58, 5th Dist. The *Jerry Russell Bliss* case overturned a Board decision because there was no evidence introduced as to the harmful nature of TCE. In our case, however, there is copious evidence of the harmful effects of boron, sulfate and other coal ash constituents. *See, e.g.*, section II.d, *supra*; Gnat Tr. Feb. 1, 200:13-23 (“The groundwater quality standards my understanding are water quality standards developed for -- based on health risk purposes for consumption of groundwater.”); *Id.* at 205:16-22 (“My understanding on the Class I drinking water standards is very much a health risk based standard.”). Furthermore, in *Bliss* there also was no evidence regarding monitoring or testing of groundwater or surface water, forcing the court to conclude that “the mere presence of a potential source of water pollutants on

⁸ The definition of “water pollution” found in the Environmental Protection Act is “will or is likely to create a nuisance or render such waters harmful or detrimental or injurious to public health, safety and welfare . . . or other legitimate use, or to livestock, wild animals, bird, fish or other aquatic life.” 415 ILCS 5/3.545. The groundwater at the four sites is, in fact, “harmful or detrimental or injurious” to public health, safety and welfare.

the land does not necessarily constitute a water pollution hazard.” *Jerry Russell Bliss, Inc. v. Illinois EPA*, 485 N.E.2d 1154, 1157 (5th Dist. 1985). In the present case, there is abundant evidence of groundwater contamination in the form of monitoring results showing coal ash constituents exceeding state Groundwater Quality Standards. Consequently, the evidence in the present case is distinguishable from *Bliss* and rises to a much higher level.

Second, MWG relies on *Environmental Site Developers, Inc. v. White & Brewer Trucking*. PCB 96-180, 1997 WL 735012. This too is distinguishable, on the litigation posture. That case was being decided on a motion for summary judgment and the evidence was therefore being held to a very different standard. Further, there were admissions in a federal case over the same pollution and the Board was deciding whether these admissions were sufficient to support a decision granting summary judgment. The Board concluded that the admissions were insufficient to support a grant of summary judgment. Obviously, a denial of summary judgment is not a conclusion that there was no violation of 12(a) and does not terminate a case. In the present case, however, there has been a hearing and there is ample evidence to show that a nuisance (and water pollution) is being created as coal ash constituents leach into potable water and render it useless.

Third and finally, MWG uses *People v. Hendricks* to support its argument that violations of groundwater quality standards do not establish a Section 12(a) violation. PCB 97-31, 1998 WL 343516. Once again, this case was postured differently from the present case. *People v. Hendricks* was decided based on the fact that there was no evidence introduced to establish contamination. PCB 97-31, 1998 WL 343516, at *7. (“The record, however, is devoid of any evidence establishing the effects of the fire runoff on the waters of the State. Mr. Senjan's inspection did not reveal any contamination, and although samples were taken, Exh. 2, test

results were not introduced into evidence.”). Our case, in contrast, contains a large volume of evidence of contamination, including roughly seven years of sampling (groundwater monitoring) that establishes routine and ongoing exceedances of Class I groundwater quality standards.

While relying on those three misapplied cases, MWG ignores the cases in which the Board and the courts have rejected the very same argument that MWG attempts to make. In *Central Illinois Public Service Co. v. Pollution Control Board*, the Central Illinois Public Service Company (“CIPS”) argued, similar to MWG, that pollution does not meet the statute’s definition of water pollution unless “actual harm to humans or crops will occur as a result of the contamination,” and there is no water pollution if “harmful effects can be avoided by not using the water.” *Central Illinois Public Service Co. v. Pollution Control Board*, 507 N.E.2d 819, at 824. The Board rejected this argument:

The Board, at the outset, disagrees with CIPS' interpretation of the definition of water pollution in the Act. The Board argues that the Act treats water as a resource, and that pollution occurs whenever contamination is likely to render water unusable. Under the Board's interpretation there is no need to show that actual harm *will* occur, only that harm *would* occur if the contaminated water were to be used. . . . Under the Board's view any contamination which prevents the State's water resources from being usable would constitute pollution, thus allowing the Board to protect those resources from unnecessary diminishment. . . . We find the Board's interpretation preferable to CIPS' interpretation, especially considering the deference we must accord to the Board.

Central Illinois Public Service Co. v. Pollution Control Board, 507 N.E.2d 819, at 824.

Similarly, in *International Union v. Caterpillar*, the Board explicitly holds that exceedances of Part 620 establish the presence of water pollution. PCB No. 94-240 (1996). The *International Union* case involved soil and groundwater contamination. At the time of the violation, the groundwater standards under Part 620 had not yet been developed. However, during the course of the case, plaintiffs showed that groundwater sampling information demonstrated that Class I and II groundwater standards were exceeded at the respondent’s site.

The Board then stated that “[i]n this case, we find that exceedances of the Part 620 standards, therefore, constitutes degradation of one of the State's water resources and indicates the presence of water pollution caused by respondent.” *International Union v. Caterpillar* PCB No. 94-240 (1996); *see also People v. CSX*, PCB 07-16, 2007 WL 2050813, at *17 (2007).

MWG goes on to argue that under 12(d), Complainants must show a “danger of a serious nature” MWG Br. at 53. MWG relies on *Tri-County Landfill* to support its argument, but this reliance is misplaced. *Tri-County Landfill* holds that a party is required to show less to establish a 12(d) violation than a 12(a) violation. 353 N.E.2d 316, at 324. In considering Section 11 of the Act⁹ and whether a violation of 12(d) had occurred, the court concluded that a violation of 12(d) exists where pollution does not yet rise to the level of severity for a 12(a) violation. “If § 12(d) referring to water pollution hazard is not to be rendered superfluous, it must be construed to refer to conduct not yet amounting to a violation of § 12(a).” *Tri-County Landfill*, 353 N.E.2d 316, at 324. In other words, 12(d) is a less rigorous standard, not, as MWG would suggest, a more rigorous standard. “[W]e are in agreement with the Board that a ‘water pollution hazard’ can be found although the actor does not yet threaten to cause pollution.” *Tri-County Landfill*, 353 N.E.2d 316, at 324. Pollution doesn’t need to have posed a risk to citizens already and contamination doesn’t need to have reached drinking water wells; it just has to have the potential to rise to the level of a health hazard in the future. *Tri-County Landfill*, 353 N.E.2d 316, at 324. “[T]he Board must be allowed to act where the conduct may endanger the safety of the citizens,” *Tri-County Landfill*, 353 N.E.2d 316, at 324.

⁹ “(a) The General Assembly finds: (i) that pollution of the Waters of this State constitutes a menace to public health and welfare, creates public nuisances, is harmful to wildlife, fish, and aquatic life, impairs domestic, agricultural, industrial, recreational, and other legitimate beneficial uses of water, depresses property values, and offends the senses.”. 415 ILCS 5/11(a).

g. Extensive Precautions and Good Practices Do Not Shield MWG from Liability.

MWG believes that it has taken “extensive precautions” (it has not, as the following section explains), and that these extensive precautions shield them from liability. MWG Br. at 43. That is simply not what Illinois case law provides. Under Section 12(a) of the Act, the relevant standard asks whether MWG “allowed” a discharge of a contaminant into the environment at the four facilities. MWG claims that the standard is that an owner who took extensive precautions cannot have “allowed” a discharge of a contamination, but this is incorrect: the standard is whether they had the capability to control the source. The extensive precautions standard only applies to “intervening causes” such as vandalism. *Perkinson*, 543 N.E.2d 901, at 904 (1989); *Illinois Environmental Protection Agency v. Cadwallader*, 2004 WL 1184749, at *5 (“[Cadwallader] failed to take reasonable precautions against trespassers, like installing a fence, despite the easy access to the site and repeated dumping over the years. In fact, there is no evidence in the record that Mr. Cadwallader took *any* measures to prevent unauthorized dumping on the site.”).

Once again and as articulated above, the standard is whether a party is “capable of exercising control over the site.” *Illinois Environmental Protection Agency v. Cadwallader*, 2004 WL 1184749, at *5 (2004). Under this standard, the Board has held that knowledge or intent are not required and whether others dumped the waste has no bearing on the question. “That others dumped the waste is of no aid to Mr. Cadwallader. The Illinois Supreme Court has established that one may ‘cause or allow’ a violation of the Act without knowledge or intent.” *Illinois Environmental Protection Agency v. Cadwallader*, 2004 WL 1184749, at *5 (citing *People v. Fiorini*, 143 Ill. 2d 318, 574 N.E.2d 612 (1991)). Under the capable-of-exercising-control standard, inaction on the part of the current owner is sufficient to support a finding of a violation:

Even if waste was dumped at the site under the prior owner and operator, Mr. Cadwallader has been in charge of the site since at least 2001 and is liable for letting the material remain on the site while under his control. The Board has held that a violation of Section 21(p)(1) for 'allowing' litter can be found based on present inaction on the part of a current owner or operator to remedy a previously caused violation.

Illinois Environmental Protection Agency v. Cadwallader, 2004 WL 1184749, at *6; *see also Illinois EPA v. Rawe*, PCB AC92-5, 1992 WL 315780, at *4 ("Present inaction on the part of the landowner to remedy the disposal of waste that was previously placed on the site, constitutes 'allowing' litter in that the owner allows the illegal situation to continue."); *Gonzalez*, 960 N.E.2d at 779 (concluding that when a party is aware of a source of contamination on its property but does not remove that source, the party has not taken sufficient precautions to prevent pollution). By the same token, in the present case, and even though a prior owner or operator of the MWG sites may have deposited the ash in the fill areas, MWG has allowed the ash to remain on the site, and is liable under 12(a) and 12(d) for its inaction to remedy the leaching of contamination into the groundwater. MWG's "passive conduct amounts to acquiescence sufficient to find a violation." *Rawe*, PCB AC92-5, 1992 WL 315780, at *4.

Complainants agree with MWG that one can "allow" a discharge by having poor practices. *IEPA v. Bath, Inc. et al.*, PCB 71-52, 71-224, *slip op.* at 2-436 (Sept. 16, 1971). But MWG goes too far when it claims, without any supporting legal authority, that the poor practices standard translates to "good practices" being a defense to a 12(a) violation. No PCB or Illinois court has recognized this defense, and in fact the Board has held, contrary to MWG's assertions, that even if the current owner has engaged in extensive remedial work on the site, the current owner is liable when the owner allows litter that is causing pollution to remain on the site.

Inverse Investments, PCB 11-79, 2012 WL 586821, at *9. In *Inverse Investments*, the respondent argued explicitly that its continuing to pay hundreds of thousands of dollars for a state-

sanctioned Site Remediation Program to clean up pollution created by the prior owner should defeat 12(a) liability. *Id.* The Board rejected this argument, stating: “the current owner may be responsible for contamination even if the current owner did not actively dispose of the contamination.” *Id.* The Board did not even discuss the argument that remedial work on the site should eliminate the owner’s liability. Likewise, the facts that (1) a prior owner/operator has disposed of coal ash in the ash fill areas on the property, (2) MWG may not have disposed of ash outside of any of the ponds, and (3) MWG may have relined some of the ash ponds at the four sites, do not defeat 12(a) liability for MWG. *See also State Oil Co.*, PCB 97-103, 2003 WL 1785038, at *19 (“The Anests allowed the waste to be consolidated on the Site when they failed to conduct any soil removal. Although the Anests tested the underground storage tanks and made repairs to one tank, the Anests did not address the removal of the waste from the Site.”).

h. MWG Did Not Take Extensive Precautions to Prevent Pollution

Even if “extensive precautions” were relevant to the legal standard, the record shows that MWG has not taken many basic precautions, much less “extensive” precautions. Among other things, MWG has effectively ignored all of the coal ash landfills and fill areas on its property, even after learning that these areas were at risk of contaminating the groundwater. *See, e.g.*, Comp. Br. 35-37, 47, 48-49, 55, 56, 59-60, 69-70. With regard to the ash ponds, MWG has relined some ponds, but has left others as they have been for years, unlined or poorly-lined, uncapped, and in contact with groundwater. And ultimately, even after the relining projects, none of the ash ponds at the four plants meet EPA criteria, they are all “unlined” for purposes of the federal coal ash rule, and they will all have to be closed.¹⁰

¹⁰ *See, e.g., Utility Solid Waste Activities Group, et al., v. EPA*, No. 15-1219, slip op. at 18-19 (D.C. Cir. Aug. 21, 2018) (vacating 40 C.F.R. § 257.101 and holding that EPA must prohibit the continued operation of all unlined coal ash impoundments).

MWG claims that “there is nothing more that MWG could have done in relation to coal ash” (MWG Br. at 43). In truth, there is a great deal that MWG could have done to protect groundwater. MWG could have investigated each of the historic coal ash areas, removed¹¹ any ash that was found to be contaminating groundwater, closed any unlined or poorly lined coal ash ponds, and ensured that all remaining coal ash disposal or storage areas were lined and capped, among other things. MWG has done none of these things. Instead, MWG has allowed contamination to continue, unabated, to the present day, in violation of Illinois law.

MWG cannot even fairly claim that its management of the four sites amounts to good practices based on Board precedent. Indeed, MWG’s actions are most closely analogous to the poor practices listed in the Board’s decision in *IEPA v. Bath*:

Respondents contended that they did not ‘allow’ underground burning as is alleged in the complaint. It is true that respondents did not start the fires themselves, nor did they give their consent for any burning. We hold, however, that the responsibility for burning must lie with respondents. To rule otherwise would be to permit an intolerable situation to continue. Respondents’ poor practices with respect to compaction have likely contributed to their problems with burning. Improved operating procedures should minimize difficulties in the future. We find that respondents have allowed underground burning.

IEPA v. Bath et al., PCB 71-52, 71-224, 1971 WL 4358, at *3 (1971). As with the respondent in *Bath*, here MWG may not have placed the coal ash in the historic ash fill areas or consented to the ash being placed there (just as Bath did not start the fires or consent to the burning). But responsibility for the contamination from the ash fill areas must still lie with MWG just as responsibility for the fires lay with Bath. Further, MWG did continue to place ash in Ponds 1N and 1S at Will County and the Former Ash Basin at Powerton but did not reline any of those ponds. Thus MWG engaged in poor practices that “contributed to their problems” and is

¹¹ Complainants note that MWG discusses the steps that a neighboring property owner took to abate contamination in its Statement of Facts: “In resp[onse] to arsenic contamination, the owner of the Griess-Pfleger Tannery site removed impacted soil and instituted use restrictions...” (MWG Br. at SOF 273) (emphasis added).

therefore liable just as Bath was liable. *Id.*

i. The Existence of GMZs at Three of the Four Sites Does Not Defeat Complainants' Open Dumping Claims

MWG also attempts to avoid liability at three of the four sites at issue here—Joliet, Powerton, and Will County—by observing that those three sites are now subject to GMZs. MWG is correct that the existence of a GMZ prevents the application of Illinois Groundwater Quality Standards; it is incorrect when it claims a GMZ shields other sources of liability, including liability for open dumping and water pollution as prohibited by the Illinois Environmental Protection Act. A Groundwater Management Zone is defined as “a three-dimensional region containing groundwater being managed to mitigate impairment caused by the release of contaminants of concern at a remediation site.” 35 Ill. Adm. Code 740.120. Section 620. 250 explains that while a GMZ exists:

the otherwise applicable standards as specified in Subpart D [Groundwater Quality Standards] of this Part [Part 620 Groundwater Quality] shall not be applicable to the ‘contaminants of concern’, as defined at 35 Ill. Adm. Code 740.120, for which groundwater remediation objectives have been approved in accordance with the procedures of 35 Ill. Adm. Code 740.

35 Ill. Adm. Code 620.250. The regulations go on to reiterate that “otherwise applicable standards” from Part 620 “shall not be applicable to the contaminants of concern for which groundwater remediation objectives have been approved.” 35 Ill. Adm. Code 740.530. Thus, the GMZs at Powerton, Joliet and Will County does not relieve MWG from compliance with the open dumping and water pollution prohibitions in the Illinois Environmental Protection Act. Moreover, the GMZs were established after Complainants filed the present complaint, and have no bearing on liability for violations that occurred before they were implemented.

j. Coal Ash Is Waste Under the Relevant Illinois Standards

MWG takes the position that coal ash is not “waste,” even when it is buried underground and ignored. MWG Br. at 55. This defies both common sense and Illinois law. As explained in Complainants’ initial post-hearing brief, coal ash is a waste, particularly where it is discarded. For purposes of Illinois law, “waste” is defined in relevant part as “any garbage... or other discarded material, including solid, liquid, semi-solid... material resulting from industrial, commercial... operations...” 415 ILCS 5/3.535, and coal ash is “waste” under Section 21(a) because it is a discarded material resulting from an industrial operation – the burning of coal to generate electricity. 415 ILCS 5/3.535 and 3.385.

The Board examined these regulations when ruling upon MWG’s motion to dismiss in this case. “Under these definitions, an area on which waste is deposited can be a ‘disposal site’ if the waste deposition is conducted in a manner that allows waste material to enter the environment, including groundwater.” Order on MTD at 26. In the Order on the Motion to Dismiss, the Board pointed out that *State Oil* turned on whether gasoline leaking from the tanks constituted “waste.” Order on MTD at 27 (quoting *State Oil*, PCB 97-103, slip op. at 21-22 (Mar. 20, 2003)). This is true even if the material could have been put to a beneficial reuse before it leaked. Also, as the Board has previously held in *State Oil*, a material that has leaked from ponds, landfills, or other areas is no longer useful and is, therefore, “waste.” “As the Board previously determined in this case, once petroleum has leaked from underground storage tanks, it becomes a ‘waste.’” *People v. State Oil Co.*, PCB 97-103, slip op. at *18 or 20 (Mar. 20, 2003) citing *People v. State Oil Co.*, PCB 97-103, slip op. at 4 (Aug. 19, 1999); see also *Universal Scrap Metals, Inc. v. Flexi-Van Leasing, Inc.*, PCB 99-149, slip op. at 7 (Apr. 5, 2001) (holding that leaked fuel from an underground storage tank is “waste” within the meaning of Section 21(a)); *Agricultural Excess & Surplus Ins. v. A.B.D. Tank & Pump Co.*, 878 F. Supp. 1091, 1095

(N.D. Ill. 1995) (“Leaked gasoline from an underground storage tank is no longer useful and is appropriately defined as discarded material or solid waste.”) The PCB also concluded in *State Oil* that the gasoline, by leaking and not being removed from the soil, had been “consolidat[ed].” Order on MTD at 27 (quoting *State Oil*, PCB 97-103, *slip op.* at 21-22 (Mar. 20, 2003)).

[Respondents] allowed the waste to be consolidated on the Site when they failed to conduct any soil removal. Although [respondents] tested the underground storage tanks and made repairs to one tank, [they] did not address the removal of the waste from the Site. Consequently, the waste was consolidated on the Site.

Order on MTD at 27 (*State Oil*, PCB 97-103, *slip op.* at 21-22 (Mar. 20, 2003)). Just as the Respondent in *State Oil* tested and repaired the underground storage tanks, in the present case, MWG relined certain ponds. However, just as the Respondent in *State Oil* did not remove the waste from the site, MWG has not removed the ash outside the ponds in the present case. As such, the ash is waste and is also consolidated on the Site. And it is clear that “Section 21(a) may apply to permitted or otherwise lawful facilities that improperly fail to contain waste.” *State Oil*, PCB 97-103, *slip op.* at 21-22 (quoted in Order on MTD at 27). Fundamentally, there are coal ash constituents in the groundwater at all four sites, which means that waste material has entered the environment, and therefore the coal ash deposits and/or impoundments at all four power plants are disposal sites.

In short, coal ash is a waste, and if it is leaking or leaching constituents into groundwater, then a coal ash area is a disposal site.

k. The Coal Ash Placement at Issue in This Case Does Not Constitute “Beneficial Reuse”

MWG tries to argue that the coal ash at its plants could be exempt from the definition of waste because its placement could be considered “beneficial re-use.” MWG Br. at 55-56.

However, beneficial reuse must be more than simply burying coal ash in the ground. Both state and federal law allow beneficial re-use, but both require a certain amount of care to prevent contamination. Under state law, 415 ILCS 5/3.135 requires that coal ash used as structural fill be “designed and constructed according to ASTM standard E2277-03 or Illinois Department of Transportation specifications” and “in an engineered application or combined with cement, sand, or water to produce a controlled strength fill material and covered with 12 inches of soil unless infiltration is prevented by the material itself or other material.” The ASTM standard cited above can be found at Ex. 902. MWG’s expert, John Seymour, “worked on” and “helped to revise” this standard himself and testified about its contents at the hearing. Hr’g Tr. Feb. 1, 219:5-17; Hr’g Tr. Feb. 2, 288:2-290:4. The ASTM standard requires a detailed decision-making process that includes, among other things, ensuring that the ash is placed above the water table, a review of historic contamination, and “leachability or material characterization” testing. Ex. 902 at MWG13-15_50260-50262. Mr. Seymour – who, again, helped to write the revised standard – testified that he has not seen any documentation that any of the coal ash fill at the four sites was placed using these screening procedures. Hr’g Tr. Feb. 2, 290:5-296:4.

Under federal law, 40 CFR § 257.53 requires that all beneficial uses “meet relevant product specifications, regulatory standards or design standards,” and for beneficial use of more than 12,400 tons, requires documentation showing that the beneficial use will not lead to contamination. Again, there is no evidence in the record that the coal ash fill at the four sites was placed with any concern for these or similar considerations. In short, the placement of coal ash fill at the four sites does not meet state and federal guidelines and does not constitute beneficial use.

In addition, coal ash in the Former Ash basin at Powerton, the coal ash landfills at Joliet,

the Former Slag/Fly Ash Storage Area at Waukegan, and Ponds 1N and 1S at Will County has not been and is not being regularly removed (for beneficial reuse or otherwise). These areas are landfills, basins, or “storage areas” and there is no evidence that the coal ash was placed there as structural fill. Clearly, the ash in landfills and ponds that have never been or are no longer dredged is “disposed” of, so it is not and has not been beneficially reused. Just as Section 21(a) applies to permitted and otherwise lawful facilities that improperly fail to contain waste, it also applies to material that under other circumstances may have been beneficially reused (or, in the case of permanent disposal in landfills and certain ponds, not) but by leaking or by being disposed of in landfills or certain ponds not being dredged becomes waste.

I. MWG’s violations are not absolved by Section 33(c)

Respondent suggests that in applying Section 33(c), as required by the Act, the Board “should not find a violation.” MWG Br. at 61. Respondent attempts to use Section 33(c) factors to add an additional element to the “cause and allow” language of Section 12(a) and 21(a), and would require the Board to find MWG’s water pollution and open dumping “unreasonable” before finding liability. *Id.* Although section 33(c) asks the Board to generally consider the “reasonableness of the emissions,” the specific factors in Section 33(c) are not nearly as broad as MWG suggests and when considered in the present case, do not absolve MWG of liability. When making its orders the Board must consider, among other factors, “the technical practicability and economic reasonableness of reducing or eliminating the emissions.” 415 ILCS 5/33(c) (emphasis added). MWG has not introduced evidence suggesting that the elimination of contamination would be “economically unreasonable.” More generally, Section 33(c) does not grant the Board discretion to waive bright-line violations simply because it determines that they were reasonable.

Respondent relies upon several cases, but those cases are all distinguishable. First,

Respondent points to *Incinerator, Inc. v. Pollution Control Bd.*, which involves a Respondent's liability under Section 9(a) of the Act. 319 N.E.2d 794, 796 (1974); *see also* MWG Br. at 61.

Section 9(a) prohibits air pollution, and the Act defines "air pollution" is as either:

- [1] presence in the atmosphere of one or more contaminants in sufficient quantities and of such characteristics and duration as to be injurious to human, plant, or animal life, to health, or to property, Or
- [2] to *unreasonably* interfere with the enjoyment of life or property.

415 ILCS 5/3.115 (emphasis added)

Incinerator is distinguishable because the air pollution at issue fell within a specific statutory category: "Air pollution of the second category is not proved unless there has been a showing of an *unreasonable* interference with the enjoyment of life or property." *Incinerator*, 319 N.E.2d at 797 (emphasis added). The court considered Section 33(c) factors¹² in deciding the question of whether the air pollution "unreasonably interfere[d] with the enjoyment of life and property" under Section 9(a). *Incinerator, Inc. v. Pollution Control Bd.*, 319 N.E.2d 794, 797 (1974). The Court relied on the Section 33(c) factors for guidance in making a determination as to what is reasonable. *Incinerator, Inc. v. Pollution Control Bd.*, 319 N.E.2d 794, 797 (1974) (citing *City of Monmouth v. Pollution Control Board* (1974), 57 Ill.2d 482, 313 N.E.2d 161).

Kochanski v. Hinsdale is similarly distinguishable. In *Kochanski*, violations of the Environmental Protection Act Section 24 noise restriction were at issue. Like Section 9(a), reasonableness is central to determining whether there is a violation of Section 24. *Kochanski v. Hinsdale*, PCB 88-116, 1989 WL 95645, at *9 (1989). "No person shall emit beyond the boundaries of his property any noise that *unreasonably* interferes with the enjoyment of life or with any lawful business or activity." 415 ILCS 5/24. "The law only prohibits noise which

¹² As the Court noted: "The provisions here in question rather clearly direct that the unreasonableness of an alleged air-pollution interference must be determined by the Board with reference to the section 33(c) criteria." *Incinerator, Inc. v. IPCB*, 319 N.E.2d 794, 797 (1974).

constitutes an *unreasonable* interference with one's life or which exceeds specified numerical standards (unless found reasonable due to Section 33(c) considerations)." *Kochanski v. Hinsdale*, PCB 88-116, 1989 WL 95645, at *9 (1989) (emphasis added). Once again, the Board looked to 33(c) to inform its determination as to reasonableness under a separate Section. *See also Wells Mfg. Co. v. Pollution Control Bd.*, 73 Ill.2d 226, 233-34 (1978) (a finding that odors were unreasonable was required in order to establish that odor is an air pollutant in violation of the Act).

In the present case, unlike Section 9(a)'s prohibition on air pollution and Section 24's noise restrictions, neither Section 12(a) or Section 21(a) require a finding of "unreasonableness." In addition, even if Section 12(a) and 21(a) did require a finding of unreasonableness, MWG did not behave reasonably when it: (1) learned of historic ash areas on its properties; (2) was informed of the contamination caused by coal ash from its properties through groundwater monitoring; and yet (3) turned a blind eye to all of the historic ash areas in taking no action to address the risk of groundwater contamination posed by these areas. And again, MWG has not put forth any evidence suggesting that it would have been "economically unreasonable" under Section 33(c) to mitigate the ongoing contamination at its sites.

In the remaining Section 33(c) cases cited by Respondent, the Courts emphasized the relaxed requirements of Section 33(c). Section 33(c) was included in the Act for the purpose of preventing arbitrary Board decisions. *EPA v. Fitz Mar*, 533 NE2d 524, 529 (citing *Sangamo Construction Co. v. Pollution Control Board* (1975), 27 Ill.App.3d 949, 954, 328 N.E.2d 571.); *see also City of Waukegan v. Pollution Control Bd.*, 311 N.E.2d 146, 152 (1974). "[T]he Board, in order to make a valid determination that a violation has been committed, is not required to make an unfavorable finding as to each Section 33(c) factor." *Tri County Landfill*, 353 N.E.2d

316, 324-25 (citing *Sangamo Construction Co. v. Pollution Control Board* (1975), 27 Ill.App.3d 949, 328 N.E.2d 571.). Under Section 33(c), all that is required of the Board is consideration of and reference to the statutory factors, and the Board does not need to make a separate, distinct finding on each of the statutory criteria of section 33(c). See *Mystik Tape v. Pollution Control Board* (1975), 60 Ill.2d 330, 336, 328 N.E.2d 5; *Wells Mfg. Co. v. Pollution Control Bd.*, 73 Ill.2d 226, 233-34 (1978). Reference to the statutory criteria, in conjunction with the requirement that the Board's opinions be written and set forth the facts and reasons for its decision, ensures that consideration of those criteria is undertaken by the Board, provides guidelines to govern the conduct of those affected by the Act, and facilitates meaningful judicial review. See *Mystik Tape v. Pollution Control Board* (1975), 60 Ill.2d 330, 336, 328 N.E.2d 5. *Wells Mfg. Co. v. Pollution Control Bd.*, 73 Ill.2d 226, 233-34 (1978).

In the present case, finding MWG liable for water pollution, open dumping, and violations of the implementing regulations of Section 12(a) would not be arbitrary because substantial evidences shows: (1) numerous exceedances of Class I groundwater standards for coal ash constituents; (2) coal ash from MWG's power plants as the cause of the groundwater pollution; and (3) that MWG was on notice of unlined coal ash deposits and sub-standard ash ponds but failed to take actions to mitigate ongoing groundwater contamination. In sum, Section 33(c) does not grant the Board discretion to absolve clear-cut violations of numeric standards simply by making the determination that such violations were reasonable.

m. A Finding of Liability Requires Imposition of Penalties and Injunctive Relief.

Finally, MWG takes the somewhat baffling position that, even if the Board finds MWG liable for violations, it should still terminate the case without ordering a remedy. MWG Initial Br. at 64-67. MWG relies on two cases for this argument, and as an initial matter in neither case

did the Board actually find liability without imposing any sort of remedy, as MWG has asked the Board to do here. *See, e.g., People v. CSX*. PCB 07-16, WL 2050813, at *19 (July 12, 2007) (Board issuing cease and desist order).

However, the cases MWG relies on are also distinguishable on their facts and litigation posture. *People v. CSX*. PCB 07-16, WL 2050813, at *18 (July 12, 2007), MWG Initial Br. at 65, is distinguishable most obviously because the evidence indicates that the site was successfully remediated. *See* 415 ILCS 5/33(c)(i) and 42(h)(1) (2006). It is also distinguishable because the character and degree of injury is much smaller, and the spill occurred at an industrial site: thus, the source is suited to the location and has economic value. Furthermore, because the spill was accidental, the technical practicality of reducing discharges is not a factor. *See* 415 ILCS 5/33(c)(ii), (iii), and (iv) (2006); and also as such the evidence was clear that subsequent compliance has occurred. *See* 415 ILCS 5/33(c)(v) (2006). *People v. CSX*, PCB 07-16, WL 2050813, at *18 (July 12, 2007). In the present case, the site has not yet been successfully remediated and compliance has not yet occurred. The cause of the groundwater contamination has not been removed: coal ash remains around the sites in fill areas and in unlined old ponds or inactive ponds that have not been relined.

Based on CSX's prompt action after an accidental spill to cleanup the site of the spill, the Board finds that no civil penalty is necessary to deter future violations of the Act. The Board further finds that no economic benefit occurred to CSX because of the failure to remediate the exceedances found at the sampling site S4 especially as the release has been remediated.

Id. at 19. Again, MWG has not taken prompt action to clean up the source of the contamination and as to some of the fill areas and ponds, MWG has taken no action. MWG has reaped an economic benefit from this because it has avoided the cost of taking remedial action for these ponds and fill areas.

Second, MWG relies upon *Union v. Caterpillar*, which is also distinguishable. PCB 94-240, 1996 WL 454961 (Aug. 1, 1996). “Where, as here, cooperation is shown, compliance has been achieved, and the imposition of a civil penalty would in no way aid enforcement or advance compliance, as fine is not appropriate.” *Union v. Caterpillar*, PCB 94-240, 1996 WL 454961, at *30 (Aug. 1, 1996). Once again, compliance has not been achieved. “More importantly, we do not believe that it is sound public policy to attach a substantial monetary penalty to a voluntary cleanup, especially when the evidence shows that the contamination was historical in nature, occurring before RCRA became effective.” *Id.* at *31. In the present case, the respondent is not voluntarily cleaning up the historical contamination. MWG has only taken steps to address active ash ponds and, as far as any contamination caused by historical coal ash, or by the ash ponds before they were relined, MWG is suggesting that it bears no responsibility for addressing that contamination. In short, both cases cited by MWG are distinguishable and do not support MWG’s argument that the present case should be dismissed before the remedy phase.

II. THE FOUR SITES ARE SUFFERING FROM COAL ASH-SOURCED WATER POLLUTION

In addition to trying to rewrite the applicable law, MWG seeks to avoid liability by obfuscating the clear evidence that all four sites at issue have been and continue to be impacted by groundwater pollution from onsite coal ash. It does so in several different ways, each of which Complainants identify and respond to in the following sections.

a. Coal Ash on MWG Properties Has Been Established as the Source of Groundwater Contamination

MWG suggests that “no one has identified a source for the constituents in the groundwater.” MWG brief at 4; *see also id.* at 47. This is plainly false. MWG’s claims that the

source cannot be identified is factually incorrect. The sources have been identified as MWG's power plants. MWG Br. at 49. MWG distorts the meaning of "source" and also Complainant's expert's testimony when MWG argues that Complainants' expert stated that he had no way to determine the specific source of the groundwater impact. MWG Br. at 47.

Both experts agree that onsite coal ash is a source. Complainants and MWG agree that¹³ Complainants' expert, Dr. Kunkel, was clear in his reports and in his testimony that he believes the constituents are coming from onsite coal ash, including the ash ponds and/or the coal ash in the ground at the four sites. *See, e.g.*, Comp. Ex. 401 at 2-4; Hr'g Tr. Oct. 26, 34:5-36:10, 39:2-8, 83:8-14, 109:19-24; Hr'g Tr. Oct. 27, 12:15-21, 25:18-26:3, 26:4-9, 45:5-13. Complainants' expert attributed the contamination to "any or all of the ponds and ash areas, at the same time or individually Hr'g Tr. Jan. 29, 73:6-17." MWG Br. at 47. Complainants' expert's opinion was that the source is coal ash and that coal ash contamination comes from the stations. Hr'g Tr. Oct. 27, 45:1-13. Respondent's expert Seymour's opinion is also that the source of the contamination is coal ash and that it came from the stations. *See* Hr'g Tr. Feb. 2, 158:14-160:10; Hr'g Tr. Feb. 2, 142:5-24; Exhibit 903, at 43; Hr'g Tr. Feb 2, 184:12-21; Hr'g Tr. Feb. 2, 192:6-10; Hr'g Tr. Feb. 2, 172:5-20; Hr'g Tr. Feb. 2, 122:20-23, 175:11-23. MWG's expert identified the constituents in question as coal ash constituents, and repeatedly stated that they were coming from onsite coal ash. Comp. Br. at 33-34,¹⁴ 46-47, 57, 68.

MWG also distorts Dr. Kunkel's testimony when it suggests that this case is analogous to *Lazlo*. MWG Br. at 48-49. When Dr. Kunkel indicated that he could not distinguish between

¹³ Hr'g Tr. Feb. 2, 172:22-173:2 ("Q. Is it your opinion that at Will County, the groundwater impacts are from historic on-site uses of coal ash? A. I think – is that also in my deposition report? It probably is"); *see also Id.* at 175:11-176:12 ("Q. I was asking that question because you said it's the same as at Powerton and at Powerton, you had said that constituents in groundwater [were] characteristic of coal ash. ... So is that a fair comparison between Powerton and Will County? A. I believe so, yes.").

¹⁴ Hr'g Tr. Feb. 2, 43:24-44:5 ("Q. Now, we see that there have been – you just identified a few coal ash constituents in the past that have been detected in the monitoring wells. You would agree? A. Yes."); Hr'g Tr. Feb. 2, 46:10-46:13 ("A. It's a power plant and so there's ash-related constituents at the site.").

sources, he was not referring to different properties owned by different entities or separate sources on different properties, which would be akin to the fact pattern in *Lazlo*. Dr. Kunkel was referring to the multiple specific repositories containing coal ash (i.e. ponds and fill) on each individual property owned by MWG.

Q. You've also mentioned that you cannot distinguish between whether a potential source for groundwater impact at the stations is the pond or the ash areas?

A. Correct.

Q. And, in fact, I think in the deposition you told me it would be impossible to distinguish between the potential sources, do you recall that?

A. That's a fair statement, yes.

Hr'g Tr. Oct. 27, 189:15-24.

The fact that Dr. Kunkel could not apportion coal ash constituents in groundwater among specific onsite coal ash storage or disposal areas does not in any way undermine his conclusion that the contamination is coming from onsite coal ash. Instead, this merely reflects the nature of the four sites, where multiple onsite coal ash storage or disposal areas have the potential to leach the same set of constituents, and where contamination from one or more of these areas is likely to be intermingled.

b. Joliet

MWG's briefing on Joliet contains multiple false statements. First, MWG makes the outlandish and patently false claim that "[t]he most important fact about Joliet 29 is that groundwater sampled since 2010 shows no coal ash constituents above Class 1 standards." MWG Br. at 9. This is not true. Since monitoring began in 2010, the groundwater at Joliet 29 has exceeded Illinois Class I Groundwater Quality Standards for coal ash constituents 69 times, including 8 exceedances in 2016 and 4 exceedances in the first half of 2017. Comp. Br. at 29; App. A to 29. MWG acknowledges that boron and sulfate have exceeded Class I standards.

MWG Br. at 12-13. MWG continues making inaccurate and misleading statements when it claims that there are no other coal ash constituents above Class I standards and fails to acknowledge, for example the violation notice which found exceedances of the coal ash constituents chloride, manganese and TDS. Comp. Ex. 3A. For instance, the Illinois EPA's Technical Support Document for a proposed coal ash regulation indicated that one of the more soluble inorganic chemical contaminants that leaches from coal ash is manganese ("Mn"). Comp. Ex. 405 at Comp. 019069 (Technical Support Document: Coal Combustion Waste Impoundments at Electrical Coal Fired Power Plants.

MWG concedes that there are three areas outside of the ash ponds at Joliet that contain coal ash. "There are three areas at the Joliet 29 Station that contain historic coal ash. One of the locations is on the northeast area of the Joliet 29 Station, the second is on the southwest area of the Joliet 29 Station, and the third is northwest of the coal pile. SOF 119, 141." MWG Br. at 11.

Regarding the area to the northeast side of the plant, MWG refers to steps taken under the Joliet 29 NPDES stormwater permit, MWG Br. at 11, but that permit requires nothing more than ensuring that the area is properly covered. Aside from doing "walk over" inspections in that area and repairing any erosion, MWG has failed to take any steps to prevent groundwater contamination from the coal ash deposited in the Northeast Ash Landfill. Comp. Br. at 35-36; Hr'g. Tr. Oct. 23, 77:2-13; Hr'g. Tr. Jan. 30, 258:21-259:9, 259:18-24, 260:2-6, 272:12-24; Hr'g. Tr. Feb. 1, 193: 15-23, 198:9-28. This omission included failing to develop information about, monitor, leach test, place an impermeable cap over, or line the Northeast Ash Landfill. *Id.*

Regarding the area on the southwest side of Joliet Station, MWG refers to the fact that it is protected by an ELUC established by the owners of the former Caterpillar site. MWG Br. at 12. Certain metals in the groundwater from the Caterpillar site have migrated onto the Joliet 29

Station. MWG Br. at 12. Yet MWG does not cite any evidence of boron, sulfate, chloride or TDS migrating from the Caterpillar site. There remains a high likelihood of groundwater contamination from the coal ash in the Southwest Ash Landfill. MWG has failed to take any steps to prevent groundwater contamination from the coal ash deposited in the Southwest Ash Landfill. Comp. Br. at 35-36; Hr'g. Tr. Oct. 23, 77:2-13; Hr'g. Tr. Jan. 30, 260:12-24, 273:13-274:11; Hr'g. Tr. Feb. 1, 196:16-197:2, 197:3-198:7. This omission included failing to develop information about, monitor, leach test, place an impermeable cap over, or line the Southwest Ash Landfill. *Id.*

MWG indicates that KPRG evaluated the coal ash in an ash fill area on the northwest side of the Joliet 29 Station. MWG Br. at 12. Yet MWG does not state that the Northeast or Southwest Ash Landfills were sampled. MWG also does not offer any evidence that the ash in the three fill areas is the same. As discussed elsewhere in this brief, there is no reason to believe that the above-ground coal ash areas sampled by MWG are representative of onsite landfills or coal ash buried in the ground. *See* Section IV, *infra*, and Appendix A, response to Statement of Fact 59.

c. Powerton

The groundwater at Powerton has been contaminated, and is being contaminated, by onsite coal ash. Comp. Br. at 38-51. The most likely source of contamination is the large volume of coal ash fill buried at the site, and also includes the large, unlined, waterlogged Former Ash Basin. The groundwater at Powerton has exceeded Illinois Class I groundwater standards for coal ash constituents 406 times since monitoring began in 2010, including 45 exceedances in the first half of 2017. Resp. Ex. 810. MWG's expert acknowledges that the contamination is not improving. Hr'g. Tr. Feb. 2, 77:8-15.

MWG acknowledges the Former Ash Basin, and discusses the monitoring results for MW-2 through MW-5, which are located near the Former Ash Basin, but completely ignores other known historical ash deposits located across the site. MWG knew about coal ash located elsewhere on the Powerton site because it had access to boring logs showing that there was coal ash in the ground near several of the monitoring wells. Specifically, the borings for groundwater monitoring wells MW-5 through MW-9, MW-11, and MW-12 show “cinders,” “black cinders,” “black coal cinders,” and/or “red coal cinders” in fill that extends from the surface to as much as 24.5 feet below the surface. Comp. Ex. 13C, MWG13-15_7102-7121; Ex. 30.5E, MWG13-15_40059-40062; Hr’g. Tr. Oct. 23, 77:20-86:1. And the groundwater in all of these wells exceed background levels, with MW-8, MW-9, MW-11, and MW-12 all exceeding the 90th percentile from Illinois EPA’s statewide database. By focusing on the Former Ash Basin, MWG effectively cherry-picks data and avoids discussing the sources that may well be causing the majority of contamination at the Powerton site. Resp. Br. at 40-41. Furthermore, even at the wells adjacent to the Former Ash Basin, MWG skims over the fact that groundwater in the vicinity of the Former Ash Basin wells (MW-2 through MW-5) shows levels of coal ash indicators (boron and sulfate) that are well above background. Comp. Br. at 41.

The fact remains that MWG has controlled this site since 1999, and the levels of coal ash constituents in groundwater have not declined, even after the relining projects at Powerton. Hr’g. Tr. Feb. 2, 77:8-15. The fact that nothing has changed despite MWG’s pond relining project suggests that MWG has not addressed the actual cause of contamination. It is also possible that the onsite ash ponds are adding contaminants to the groundwater. Comp. Br. at 58-59. As discussed elsewhere in this brief, the D.C. Circuit Court of Appeals recently ruled that, as a matter of law, all of the MWG ash ponds present an unreasonable risk and must be closed. *See*

Section III, *infra.*; See also *Utility Solid Waste Activities Group, et al., v. EPA*, No. 15-1219, 2018 WL 4000476, D.C. Cir. Ct., *slip op.* at 18 – 19 (Aug. 21, 2018). MWG witnesses spoke extensively about issues they have had with the liner, the danger of hydrostatic uplift, etc.

d. Waukegan

The groundwater at Waukegan has been contaminated, and continues to be contaminated, by onsite coal ash. Comp. Br. at 51-62. The most obvious source of contamination is the coal ash landfill¹⁵ immediately west of the two onsite ash ponds, though the ponds may also be leaking (they have not been relined since before MWG entered into CCAs with Illinois EPA¹⁶), and additional contamination may be coming from coal ash that was used in the construction of the ash pond berms. *Id.* The groundwater at Waukegan has exceeded Illinois Class I groundwater standards for coal ash constituents 396 times since monitoring began in 2010, including 55 exceedances in the first half of 2017. *Id.* MWG's expert acknowledges that the contamination is not improving. *Id.*

Incredibly, MWG makes no mention of the coal ash landfill at Waukegan in its initial post-hearing brief. Instead, MWG speculates about possible, but by no means well-established, offsite sources of contamination. First, MWG alludes to a possible fly ash area on the General Boiler Property. MWG Br. at 18. The only evidence in the record of such an area is a single passing reference on a citizen groups' website.¹⁷ As MWG's expert observed, that is "not the same as having a consultant's report in front of you." Hr'g. Tr. Feb. 2, 97:22-100:13. There is no hard evidence of a fly ash area on the General Boiler Property in the record. No one knows whether it ever existed, how extensive it was, or whether it continues to exist. There are no soil

¹⁵ The "former slag/fly ash storage area." Comp. Br. at 54-56; Comp. Ex. 19D at MWG13-15_45814.

¹⁶ Although MWG continues to express confusion about the relining history at Waukegan, it appears that the ponds were relined in 2003 and 2004. Hr'g Tr. Jan. 30, 111:18-22.

¹⁷ The website appears to be hosted by the "Task Force on Waukegan Neighborhoods." MWG Ex. 623.

borings from that part of the General Boiler Property, and no boron or sulfate data that could be used to identify coal ash contamination coming from that area. Hr'g. Tr. Feb. 2, 186:16-22.

Similarly, MWG asserts that the former tannery on the "Tannery Site" used borax in its tanning process. MWG Br. at 18. MWG's support for this idea is anecdotal. Specifically, MWG's brief cites statement of fact 268, which in turn cites a remedial investigation report, and that report says that "[a]ccording to the Tannery Council of America, two tanning methods exist: chrome tanning and vegetable tanning. Past analytical data suggest that chromium tanning processes were utilized by the Griess-Pfleger Tannery. Chrome tanning consists of nine steps. Chemicals involved in the tannery process include [thirteen compounds, including borax]." MWG Ex. 643, MWG13-15_47089. MWG has not conclusively established that the tannery used the chrome tanning process, or that the tannery used borax. It is true that there is evidence in the record of some kinds of contamination emanating from the tannery site, but not boron or sulfate. See, e.g., MWG Br., SOFs 278-281.¹⁸

Even if it were true that the General Boiler Property had a fly ash area, or that the Tannery Site used borax, those facts would not help MWG. There is abundant hard evidence in the record to establish that there is a large coal ash landfill on the Waukegan site that is contaminating groundwater. This includes multiple soil borings showing coal ash in the area identified on maps as the "former slag/fly ash storage area," Comp. Br. at 54-55, and groundwater data showing a very clear pattern: as the groundwater passes through the landfill, the boron and sulfate concentrations increase dramatically. Comp. Br. at 57-58; Hr'g Tr. Feb. 2,

¹⁸ See, e.g., MWG Br., SOFs 278-281. The data for other contaminants do not help MWG. MWG states that it "concluded that the arsenic, iron, manganese, and TDS concentrations in the ELUC wells on the Waukegan Station were higher than the concentrations predicted in the modeling to establish the ELUC." MWG Br., SOF 278. Arsenic, iron, manganese, and TDS can all be found in coal ash. See, e.g., Comp. Ex. 401 at 7. If these pollutants are all present at higher-than-predicted concentrations on the Waukegan property, it suggests that the coal ash on the Waukegan property is adding more contamination to what is already coming from the tannery site.

229:16-21. Regardless of any possible upgradient sources of contamination, the bulk of the onsite contamination is clearly coming from onsite coal ash. MWG has failed to even mention the onsite coal ash landfill, much less explain how it is not a source of contamination. And in practice, MWG has done nothing to investigate, remediate, or otherwise “exercise control” to reduce contamination from the landfill. Comp. Br. at 59-62.

It is also possible that the onsite ash ponds, which were last relined in 2003 and 2004, and which were constructed with coal ash, are adding contaminants to the groundwater. Comp. Br. at 58-59. As discussed elsewhere in this brief, the D.C. Circuit Court of Appeals recently ruled that, as a matter of law, these ash ponds present an unreasonable risk and must be closed. *Utility Solid Waste Activities Group, et al., v. EPA*, No. 15-1219, *slip op.* at 18-19 (D.C. Cir. Aug. 21, 2018).

e. Will County

The groundwater at Will County has been contaminated, and is being contaminated, by onsite coal ash. Comp. Br. at 62-73. The contamination is coming from coal ash fill buried along the eastern edge of the site’s ash ponds, and/or from the ash ponds themselves. *Id.* The two northern ash ponds remain poorly lined, contain both coal ash and water, and are open to precipitation. *Id.* None of the ash ponds meet federal liner criteria. Comp. Br. at 66. The coal ash fill and the ash ponds are all in constant contact with groundwater. *Id.* at 68. The groundwater at Will County has exceeded Illinois Class I groundwater standards 443 times since monitoring began in 2010, including 37 exceedances in the first half of 2017. *Id.* at 63. MWG’s expert acknowledges that the contamination is not improving. *Id.*

MWG suggests that Complainants’ expert “incorrectly and without evidence opined that cracks likely existed in MWG’s poz-o-pac liners.” MWG Br. at 22. Complainants’ expert was not just speculating, however. It is not only likely, but certain, that the poz-o-pac liners at Will

County have cracked in at least one instance, allowing water to seep through. Comp. Br. at 65-67; Comp. Ex. 303, Hr'g Tr. Oct. 24, 214:5-215:12. All of the liners were installed at the same time (forty years ago), and are all equally likely to crack. In any case, none of the ash ponds at Will County meet federal design and siting criteria. Comp. Br. at 66. As discussed elsewhere in this brief, the D.C. Circuit Court of Appeals recently ruled that, as a matter of law, these ash ponds present an unreasonable risk and must be closed. *Utility Solid Waste Activities Group, et al., v. EPA*, D.C. Circuit Court of Appeals no. 15-1219, unpublished opinion (Aug. 21, 2018).

In the “Will County Station” section of its brief, MWG Br. at 21-24, MWG makes no mention of the thick coal ash fill area along the eastern side of the ash ponds, even though that fill is constantly saturated with groundwater and almost certainly leaching coal ash constituents. Comp. Br. at 67-68. MWG has paid no more attention to this coal ash fill in practice than it did in its brief. MWG has long known about the coal ash in this area, but has done nothing to investigate, remediate, or otherwise “exercise control” to reduce the ongoing contamination. *Id.* at 62-72. Instead, MWG has ignored, and continues to ignore, an obvious source of coal ash constituents in groundwater.

f. According to MWG’s expert, groundwater contamination is not improving at three of the four power plants

MWG’s expert concluded that the groundwater quality was not improving (“neither increasing nor decreasing”) at Powerton, Waukegan and Will County. Hr’g Tr. Feb. 2 at 77:8-15, 96:9-19, 123:20-124:6; Resp. Ex. 901, slides 43, 55 and 71. Mr. Seymour also observed that groundwater contamination was getting worse (“increasing”) in multiple wells at each site:

- At Powerton, Mr. Seymour observed that boron was increasing in four wells, and that sulfate was increasing in the majority of wells (nine of sixteen). *Id.* at 43.

- At Waukegan, Mr. Seymour observed that boron was increasing in three wells, and that sulfate was increasing in one well. *Id.* at 55.
- At Will County, Mr. Seymour observed that boron is increasing in the majority of wells (six of ten), and that sulfate is increasing in two wells. *Id.* at 71.

On balance, most wells at each of these sites show increasing trends or no change over time, and Mr. Seymour concluded that, “[o]verall, it appears that groundwater concentrations are neither increasing nor decreasing.” *Id.* There is no ambiguity about these results – 5 to 6 years after MWG entered into Compliance Commitment Agreements with Illinois EPA (Resp. Exs. 626, 636, 647, and 656), and 4 to 5 years after MWG stated that compliance activities were complete (Resp. Exs. 630, 637, 651, and 661), and according to their own expert, groundwater quality at Powerton, Waukegan and Will County is not improving. Hr’g Tr. Feb. 2, 77:8-15, 96:9-19, 123:20-124:6; Resp. Ex. 901, slides 43, 55 and 71. This is because MWG’s relining projects undertaken before the CCAs and MWG’s compliance activities undertaken as part of the CCAs were not sufficient to address all sources of contamination.

At Joliet 29, the overall pattern is different, with more wells showing improvements in groundwater quality over time. Ex. 901 at slide 25; Ex. 908. Yet even at Joliet 29 there are wells where groundwater quality appears to be deteriorating. Although MWG attempts to discredit Dr. Kunkel’s “eyeball opinion” (MWG Br. at 13), MWG’s expert witness, Mr. Seymour, agrees with Dr. Kunkel’s conclusions. Specifically, Dr. Kunkel concluded that boron concentrations were increasing at two wells, MW-3 and MW-5 (Ex. 908, slides 3 and 5), and Mr. Seymour reached the same conclusion. Ex. 901, slides 23-24. Dr. Kunkel concluded that sulfate concentrations were increasing in one well (MW-5). Ex. 908, slide 16. Mr. Seymour concluded that sulfate concentrations were increasing in two wells (MW-5 and MW-9). Ex. 901, slides 23-24.

In short, the two experts agree about the trends in groundwater data over time, which should give the Board confidence that the experts' conclusions are correct. At Joliet 29, groundwater generally appears to be improving, though it is deteriorating in some wells. At Powerton, Waukegan, and Will County, groundwater quality is not improving overall, and is getting worse in multiple wells, because MWG has failed to halt the flow of contaminants from coal ash at each site.

III. THE D.C. CIRCUIT COURT OF APPEALS RECENTLY DETERMINED THAT ALL UNLINED SURFACE IMPOUNDMENTS PRESENT UNACCEPTABLE RISKS AND MUST BE CLOSED

None of the coal ash ponds at the four MWG plants meet federal liner criteria, and so they are all, for purposes of federal regulation, “unlined.” Hr’g Tr. Feb. 2, 143:5-148:4; 40 CFR § 257.71(3). As originally promulgated, the coal ash rule allowed unlined coal ash ponds to operate until they caused statistically demonstrable groundwater contamination (or violated other criteria of the coal ash rule). 40 CFR § 257.101. The D.C. Circuit Court of Appeals recently determined that this was not sufficiently protective, as all unlined impoundments present a “reasonable probability of adverse effects on health or the environment”:

The record shows ... that the vast majority of existing impoundments are unlined, that unlined impoundments have a 36.2 to 57 per cent chance of leakage at a harmfully contaminating level during their foreseeable use, and that the threat of contamination from unlined units exceeds the EPA’s cancer risk criteria and thus ‘generally will be considered to pose a substantial present or potential hazard to human health and the environment.’ It is inadequate under RCRA for the EPA to conclude that a major category of impoundments that the agency’s own data show are prone to leak pose ‘no reasonable probability of adverse effects on health or the environment,’ simply because they do not already leak.

Utility Solid Waste Activities Group, et al., v. EPA, D.C. Circuit Court of Appeals no. 15-1219, *slip op.* at 18 – 19 (Aug. 21, 2018) (internal citations omitted). The Court went on to

vacate the coal ash rule to the extent that it allows the continued operation of unlined impoundments. *Id.* at 24. Since all of the MWG coal ash ponds are unlined, they will all have to be closed. This is because the ash ponds, by their very nature, pose an unreasonable risk.

IV. MWG REPEATEDLY MISSTATES FACTS THAT ARE CENTRAL TO THIS CASE

MWG's opening Post-Hearing Brief contains numerous factual misrepresentations, including the claim about exceedances of groundwater standards at Joliet mentioned above, that diminish MWG's credibility. Whether MWG intended to mislead the Board or just made a series of critical factual errors is unclear. What is clear is that there are concerns with relying on MWG's brief.

First, MWG suggests that “[c]omplainants do not, and cannot, identify when constituents reached groundwater.” MWG Br. at 3, *see also id.* at 47. This is false. Complainants and their expert have repeatedly stated that the contamination has been ongoing since 2010 or earlier when groundwater monitoring began, and it continues today. *See, e.g.,* Hr’g Tr. Oct. 26, 85:5-18; Hr’g Tr. Oct. 27, 26:10-14, 47:5-10, 178:20-180:14; Hr’g Tr. Jan. 29, 138:14-141:7. This is not a situation where the contamination is alleged to have occurred at a precise moment in time. Instead, the contamination has been – and is still – ongoing.

MWG claims that there would be no hydraulic “head” in an inactive landfill. MWG Br. at 8. This is not true when coal ash is in contact with groundwater. In this situation, as MWG's expert acknowledges, the groundwater creates a hydraulic head that can mobilize coal ash constituents. Hr’g Tr. Feb. 1, 226:2-226:12. In general, the constituents of coal ash in inactive landfills or other fill areas can be mobilized in one of two ways – as precipitation passes through the ash, or through periodic or sustained contact with groundwater. *See, e.g.,* Comp. Ex. 401 at 2, 18, 25, 32. If precipitation and groundwater contact presented no risk, then EPA would not have

required cover systems that “minimize infiltration,” and would not have required a five-foot separation between coal ash units and groundwater. 40 C.F.R. § 257.102(d)(3), 257.60. It is undisputed that the coal ash fill areas at the four sites lack impermeable caps – and are therefore open to precipitation – and that much of the ash fill is in periodic or sustained contact with groundwater. *See, e.g.*, Comp. Br. at 36, 44, 48, 56, 58, 68.

MWG makes multiple factual misrepresentations about the Former Ash Basin at Powerton. First, MWG claims that the data show that the Former Ash Basin “is not leaching coal ash constituents to the groundwater.” MWG Br. at 17. This is absolutely false. As one would expect at an unlined, waterlogged coal ash pond, the groundwater data show ongoing contamination. Boron concentrations in wells MW-2 through MW-5 (“downgradient” of the Former Ash Basin according to MWG, MWG brief at SOF 248) are higher than they are in MW-1 (“sidegradient” of the Former Ash Basin, according to MWG, *id.*), and much higher than in upgradient well MW-16. Comp. Br. at 40-41. Median boron concentrations in wells MW-4 and MW-5 exceed the 90th percentile background value from the Illinois EPA database. *Id.* A similar pattern can be seen in the sulfate data. In short, the Former Ash Basin is clearly leaching both boron and sulfate into the groundwater.

MWG next claims that Complainants’ expert “agreed that results from the wells downgradient of the Former Ash Basin all had concentrations of boron, sulfate, and manganese” that were “below [his] calculation of a background concentration.” MWG Br. at 17; see also *id.* at 41. Again, MWG’s statements mischaracterize Dr. Kunkel’s testimony. Dr. Kunkel admitted that some of these constituents, in certain wells, at certain points in time, were below background.¹⁹ But on average – and most of the time – boron and sulfate levels in wells MW-1

¹⁹ For example, Dr. Kunkel admitted that “two of the last four” boron results in well MW-2 were below background. Hr’g. Tr. Oct. 27, 207:20-208:5. Of course that means that “two of the last four” boron results were above

through MW-5 are above background (*see, e.g.*, Dr. Kunkel's demonstrative exhibit at Ex. 411, 19-20), and Dr. Kunkel never testified otherwise.

MWG states that "environmental investigations conducted at the General Boiler Property" at Waukegan showed that "the property included a fly ash fill area." MWG Br. at 18. This is a largely unfounded statement, and it is a distraction. The only evidence in the record suggesting that there was a fly ash fill area on the General Boiler property is a screenshot of a website²⁰ that Complainants' expert dismissed as "anecdotal," and about which MWG's expert said "it's not the same as having a consultant's report in front of you." Hr'g. Tr. Feb. 2, 97:22-100:13. Aside from this website, there is no evidence of a fly ash area on the General Boiler property, either in the past or currently, and no offsite boron or sulfate data that could be used to confirm or deny the presence of such an area. *Id.* at 186:16-22. This stands in stark contrast to the abundant evidence of both coal ash and boron and sulfate contamination in the Waukegan landfill. Comp. Br. at 52-59. And in any event, as MWG's expert concedes, contamination increases as groundwater flows through the landfill. *Id.* at 58. Regardless of any offsite fly ash areas, the record shows quite clearly that onsite sources of coal ash are causing groundwater contamination.

MWG attempts to discredit Complainants' expert by suggesting that he "was not familiar with" the Compliance Commitment Agreements (CCAs) for the four sites. MWG Br. at 28. In fact, Dr. Kunkel was quite familiar with the CCAs for the four sites, and discussed their contents in his initial expert report, concluding that they "will not solve the problem of past and ongoing groundwater contamination." *See, e.g.*, Ex. 401, 4, 7, 15, 20, 29, 34. The testimony that MWG

background, as were 22 of the 27 results on record. Ex. 411 at 19, 26. Boron in well MW-4 has never been below background. Sulfate in well MW-5 has never been below background. In general, wells MW-2 through MW-5 show a clear pattern of contamination. *Id.* at 19-20.

²⁰ The website appears to be hosted by the "Task Force on Waukegan Neighborhoods." MWG Ex. 623.

cites, when read in its proper context, shows that Dr. Kunkel was “not familiar” with Illinois policy,²¹ but does not show that he was unfamiliar with the CCAs for the four sites.

MWG claims that the ash from the ash ponds at the four sites “was tested and not leaching.” MWG Br. at 32. This is false and contradicts MWG’s own brief. Table 1 in MWG’s brief shows that the “bottom ash from MWG ponds” was leaching detectable concentrations of barium, boron and sulfate. See also Ex. 903, Table 5-1; Ex. 901, slide 8. For the other tested constituents, Table 1 merely shows that the leachate had less than the detection limit for each constituent.²² Even though these leach tests are not reliable simulations of leaching in the field (see, e.g., Ex. 407 at 4-5), they do show constituents leaching from the ash samples, contrary to MWG’s assertion.

MWG claims that “the historic fill areas” at the four sites “were sampled.” MWG Br. at 32. Again, this is simply not true. MWG did not perform investigations of the historic fill areas alleged by Complainants to be causing groundwater pollution. The samples to which MWG refers came from above-ground coal ash deposits at three of the four sites. At Joliet 29, the sampled ash came from “areas where ash and slag resultant from the combustion of [coal] were formerly placed on the ground surface.” Ex. 293, MWG13-15_19576.²³ At Powerton, the sampled ash came from within the former Limestone Runoff Basin. Ex. 903 at 47; Hr’g Tr. Feb. 2, 170:5-20; Ex. 635; Hr’g Tr. Jan. 30, 67:24-68:24. At Will County, the sampled ash came from

²¹ Counsel for MWG first asked whether Dr. Kunkel was a licensed professional engineer in Illinois, then asked whether he had ever taken a property through the Illinois Site Remediation Program, then asked whether understood “what a groundwater management zone does in Illinois,” before asking whether was familiar with “the concept of a CCA ... in Illinois.” Hr’g Tr. Oct. 27, 87:8-23. This line of questioning was directed at Dr. Kunkel’s familiarity with Illinois policy, not his familiarity with the contents of the CCAs at issue in this case. And although Dr. Kunkel could not recall what the acronym “CCA” stood for, he also stated that “I’ve certainly read it several times.” *Id.* at 87:24-88:3.

²² As shown elsewhere in the record, including the reports produced by MWG’s expert, more sensitive tests probably would have found some amount of most of these constituents. See, e.g., Ex. 903, Table 5-2.

²³ MWG’s expert cites this document in his initial report under the heading “Investigations of Potential Leaching Characteristics of Historical Ash in Fill Materials at Sites,” and subheading “Joliet #29 Investigation.” Ex. 903 at 46.

a “CCR placement area” that was clearly visible as an above-ground pile in a photograph included in the sampling report. Ex. 903 at 48; Ex. 901 at slide 66; Ex. 284, MWG13-15_49569. At Waukegan, no ash outside of the ash ponds has been leach tested. Hr’g Tr. Feb. 2, 192:16-19. In other words, MWG did not sample or otherwise “perform investigations of” either of the Northeast or Southwest Ash Landfills at Joliet 29, any of the coal ash fill or the Former Ash Pond at Powerton, or the coal ash fill along the eastern edge of the ash ponds at Will County, and did not sample the Former Slag/Fly Ash Storage Area or any other ash at Waukegan other than the ash in the ash ponds. Since the historic fill areas were not sampled, MWG has no support for the idea that “they are not a cause of the constituents in groundwater.” MWG Br. at 32.

MWG argues that “[i]f the ash ponds, or the fill, were a source of the constituents in the groundwater, then coal ash constituents would be present above the Class I groundwater standards in all (or at least many) of the wells, and that is simply not the case.” MWG brief at 32-33. This argument is wrong in two ways, both theoretically and factually. First, it is not true that constituents leaching out of coal ash would automatically be present at levels that exceed Illinois groundwater standards. But that hardly matters here, because coal ash constituents do, in fact, exceed Class I groundwater standards in “many” of the wells at the four sites, and in “all” wells at two sites. Since 2010, groundwater has exceeded Class I standards for coal ash constituents in 6 of the 11 wells at Joliet 29, in 14 of the 19 wells at Powerton, and in all of the wells at Waukegan and Will County. Comp. Br. Appendix A.

MWG asserts that “at the Joliet 29 Station, the groundwater results show that the groundwater is not impacted by constituents related to coal ash.” MWG brief at 35. This is false because counsel for MWG asked their expert the following question and elicited the following response:

Q. Now, we see that there have been – you just identified a few coal ash constituents in the past that have been detected in the monitoring wells. You would agree?

A. Yes.

Hr’g Tr. Feb. 2, 43:24-44:5. Mr. Seymour went on to say “there’s ash-related constituents at the site.” *Id.* at 46:10-46:13.

MWG asserts that “[t]here is no evidence to suggest that before relining, the ponds were leaching constituents into the groundwater.” MWG Br. at 36. This is incorrect. There are at least three kinds of evidence that point to leaking. First, the groundwater data from before the relining process showed widespread contamination, including, for example, 151 monitoring results in excess of Illinois Class I groundwater standards in 2011. Comp. Br., Appendix A. Second, the condition of the ponds prior to relining was at times described as “poor,”²⁴ and we know that at least two ponds – the Secondary Ash Settling Basin at Powerton and an ash pond at Will County – experienced groundwater infiltration, which shows a direct hydraulic connection between coal ash and groundwater. *See, e.g.*, Comp. Br. at 42 and 66-67. The 2012 violation notices state for all four MWG Plants in the first paragraph: “A review of information available to the Illinois EPA indicate the following on-going violations of statutes, regulations or permits.” *See, e.g.*, Comp. Ex. 1A, at MWG13- 15_330; Comp. Ex. 2A at MWG13-15_335; Comp. Ex. 3A at MWG13-15_344; Comp. Ex. 4A at MWG13-15_350. “Operations at ash impoundments have resulted in violations of the Groundwater Quality Standards” Comp. Ex. 1A, at MWG13-15_330; Comp. Ex. 2A at MWG13-15_335; Comp. Ex. 3A at MWG13-15_344; Comp. Ex. 4A at MWG13-15_350. *See also* Comp. Br. at 24. It is worth noting that none of the ash ponds at the four sites meet EPA liner criteria. Hr’g Tr. Feb. 2, 143:5-148:4. MWG may argue for a different interpretation of this evidence, but it cannot credibly claim that there is no evidence.

²⁴ *See, e.g.*, Ex. 34, MWG13-15_23614, 23615, 23617.

MWG claims that, with the exception of the Former Ash Basin at Powerton, “there are no groundwater wells near [historic ash] areas.” MWG Br. at 41. This is nonsense. At Waukegan, the “former slag/fly ash disposal area” is encircled by at least five monitoring wells, some of which are on the edge of, or within, the area. Comp. Br. at Appendix E, 54, 57. At Will County, five monitoring wells were installed directly in the coal ash fill area. Comp. Br. at 67. And the same is true at Powerton, where multiple wells were installed directly in coal ash fill areas. Comp. Br. at 44 (discussing seven wells whose borings showed coal ash buried from the surface down to as much as 24.5 feet below the surface).

V. MWG’S EXPERT MAKES INCONSISTENT STATEMENTS ABOUT HISTORIC COAL ASH; ON BALANCE, HIS TESTIMONY SHOWS THAT HISTORIC COAL ASH IS CONTAMINATING THE GROUNDWATER

MWG argues that its expert has concluded that historic ash “is not contributing to the groundwater constituents at the four sites.” MWG Br. at 41. Mr. Seymour has been, at best, inconsistent on this issue. He has at times stated that historic ash is not a source of contamination. Yet he has also made repeated statements to the contrary. *See, e.g.*, Comp. Br. at 34, 47, 57, 68; Hr’g Tr. Feb. 2, 46:10-46:13, 142:5-142:24, 158:14-160:10, 172:22-176:12, 184:12-21. For example, at Joliet 29, Mr. Seymour said that “[i]t’s a power plant and so there’s ash-related constituents at the site,” and went on to say that the “impacts we’re seeing ... may be related to coal ash from historic uses.” Hr’g Tr. Feb. 2, 46:10-46:13, 158:14-160:10. In other words, Mr. Seymour believes that the contamination is being caused by historic ash, but claims to have no idea where the historic ash that is causing the contamination is located. The crux of the matter appears to be whether Mr. Seymour can “rule out” historic sources for which he has no leach test data. His testimony suggests that he cannot:

Q. ... You said, 'I can understand part of it. I can answer part of it. The [Joliet 29] power plant is over 50 years old and there are many historic uses at the site that may have caused the impacts that we're seeing, and they have caused the impacts that we're seeing, and they may be related to coal ash from historic uses.' Is that right?

A. Yes. That's what it says.

Q. Okay. And do you still have that opinion?

A. Yes. I think that's consistent with my opinion. As I mentioned, at Joliet, there's some impacts and we don't have specific sources and the site is under proper management right now to avoid risk.

Q. Thank you. And it's your opinion that for at least some of the ash outside of the ponds, you can rule that out as a source?

A. Well, what I have said is that in Joliet, there is no identified ash outside of the pond.

Q. *And specifically, the material that you can rule out is the material for which you have leach test data; is that right?*

A. *Correct.*

Hr'g Tr. Feb. 2, 159:22-161:1 (emphasis added). If Mr. Seymour cannot rule out the coal ash fill for which he has no leach test data, then all of these coal ash fill areas are potential sources of contamination. If Mr. Seymour somehow believes that the above-ground ash deposits for which he does have leach test data are representative of historic ash fill, he has not explained why they would not also be representative of unidentified historic ash fill. In other words, if the leach tests for the above-ground deposits were representative of *any* old, onsite coal ash, then they would have to be representative of *all* old, onsite coal ash, and this would "rule out" all historic ash at the four sites. This would of course be inconsistent with the Mr. Seymour's opinion that the contamination is coming from historic onsite coal ash.

The most logical way to resolve the inconsistencies and contradictions in Mr. Seymour's testimony is to accept the above-cited excerpt as accurate: Mr. Seymour could only rule out coal ash for which he had leach test data. He did not have leach test data for the historic fill areas identified by Complainants, and cannot rule them out. They remain potential sources, and given Mr. Seymour's testimony about onsite fill being a source of contamination, they are *likely* sources of contamination. It is also important to remember that the leach test data used by Mr.

Seymour should not be used to rule *anything* out, because they do not accurately simulate leaching behavior in the field. Ex. 407 at 4-5. Ultimately, MWG and its expert have no basis for asserting that historic coal ash fill is not a source of contamination. If, as Mr. Seymour concedes, the contamination is coming from onsite coal ash, then it must be coming from the coal ash fill areas identified by complainants and/or the onsite coal ash ponds.

VI. MWG’S CONCLUSIONS ABOUT CONTAMINATION PATTERNS AND TRENDS ARE NOT SUPPORTED BY THE DATA AND SHOULD BE REJECTED.

MWG tries to argue that the contamination is “random and inconsistent,” that there is no “plume,” and that the data are “erratic.” MWG Br. at 4, 37, 40-41. These arguments are far-fetched, to say the least, and not at all supported by the data. Most wells at the four sites, particularly those in or immediately downgradient of coal ash areas, show levels of coal ash indicators that are elevated far above background.²⁵ At Waukegan, for example, the highest onsite concentrations of boron and sulfate are located immediately downgradient of the ash landfill known as the “former slag/fly ash storage area.” Comp. Br. at 57-58. At Powerton, the highest onsite concentrations of boron are found in places where the coal ash fill is 15-20 feet thick (discussed in more detail below). Comp. Br. at 40-41; *see also infra* at 37. At Will County, all of the groundwater wells show high concentrations of coal ash indicators, and all of the wells are located in close proximity to both ash ponds and ash fill. Comp. Br. at 62-69.

MWG is clearly grasping at straws here, and in doing so it contradicts and undermines its own arguments. For example, MWG suggests that “[t]ypically, there would be a higher concentration of constituents in groundwater at the location of a suspected source.” MWG Br. at

²⁵ As discussed in Complainants’ initial post-hearing brief, boron in levels in most of the wells at Powerton, and all of the wells at Waukegan and Will County, have median boron concentrations that exceed the upper-bound, 90th percentile background value from Illinois EPA’s ambient monitoring network. Comp. Br. at 21-22, 40-41, 52-53, and 64-65. According to MWG’s expert, if onsite data are greater than the 90th percentile, then “you’re sure that it is above background.” Hr.g. Tr. Feb. 2, 32:17-33:6.

37. This is exactly what we see in the groundwater data, particularly at Powerton, Waukegan and Will County:

- MWG agrees that “boron is a key indicator of coal ash.” MWG Br. at 12. At Powerton, the highest boron concentrations can be found in wells MW-9 and MW-11 through MW-15. Comp. Br. at 40-41. These wells are located in a thick layer of coal ash – the soil borings for all six wells show coal ash buried to depths of 15-20 feet. Ex. 401, Table 6; Comp. Ex. 13C, MWG13-15_7120; Comp. Ex. 24E, MWG13-15_4059-4064; Comp. Ex. 30.5E, MWG13-15_40059-40062.
- At Waukegan, the highest onsite concentrations of boron and sulfate are found in wells MW-5 and MW-7, immediately downgradient of the onsite coal ash landfill. Comp. brief at 57-58. The pattern of contamination is further established by the fact that concentrations of both boron and sulfate increase as groundwater moves through this landfill. *Id.*
- At Will County, all of the monitoring wells are situated in close proximity to both ash ponds and ash fill, and all of the wells show boron levels that are greater than the 90th percentile background value from the Illinois EPA ambient monitoring network. Comp. Br. at 64-65.

In short, the data are not random or inconsistent, but instead show a pattern that easily meets MWG’s definition of a “typical” contamination scenario.

MWG also stumbles over the trends in the data. On a single page of its brief, MWG tries to argue that “[t]he trends of the constituents related to coal ash were erratic,” while also stating that the “trends are neither increasing nor decreasing but are remaining the same.” MWG Br. at 37. This simply makes no sense. The trends cannot be erratic if they are not changing. And, of

course, the data are not “erratic” at all. Since 2010, most onsite monitoring wells show consistently elevated concentrations of coal ash indicators, which is exactly what one would expect in a situation where coal ash constituents are continuously leaching out of coal ash into groundwater.²⁶ This means that the wells with exceptionally high levels of boron and sulfate tend to have consistently high levels. For example, at Waukegan, boron concentrations in wells MW-5 and MW-7 have been consistently greater than the Class I groundwater standard of 2 mg/L, and almost always greater than 10 mg/L; sulfate concentrations have been consistently greater than the Illinois Class I groundwater standard of 400 mg/L. *Id.* at 43-47.²⁷ In short, and as stated by Complainants’ expert, “there is both spatial and temporal consistency as well as a contaminant plume at each of the four plant sites.” Comp. Ex. 407 at 7. MWG’s arguments to the contrary are not supported by the data and should be rejected.

VII. MWG MISREPRESENTS COMPLAINANTS’ CRITIQUE OF MWG’S EXPERT’S “MATCHING” ANALYSIS, AND FAILS TO REBUT THAT CRITIQUE.

MWG continues to defend Mr. Seymour’s “matching” analysis (MWG Br. at 50) despite the fact that complainants have shown, in large part through the concessions of Mr. Seymour himself, that his analysis is fatally flawed and does not support his conclusions. To briefly summarize his methods, Mr. Seymour conducted two versions of his “matching” analysis.²⁸ In each version, Mr. Seymour identified a set of coal ash “indicators” as anything that was detected

²⁶ Time series plots generated by Complainants’ expert can be found in Comp. Ex. 401. At Powerton, where it was possible to compare downgradient groundwater to an onsite background well, the concentrations of both boron and sulfate in wells MW-4, MW-8 through MW-15, and MW-17 through MW-19 were greater than the median concentration in background well MW-16 every time they were measured. *Id.* at 19-25. The same pattern is generally true at all four sites. *Id.* at 6-9, 43-47, and 60-63. The same observation can be made using the groundwater data presented by MWG in their Exhibits 809-812.

²⁷ *Id.* at 44-45; *see also, e.g.*, time series plots for wells MW-13 and MW-14 at Powerton, *Id.* at 23, or wells MW-4 and MW-5 at Will County, *Id.* at 61.

²⁸ Mr. Seymour’s primary analysis can be found in various places as a multi-page “Table 5-5.” Resp. Ex. 903 at Table 5-5; Resp. Ex. 904 at Table 5-5; Resp. Ex. 901 at Table 5-5. His “backup” analysis can be found in Table 5-4. *See, e.g.*, Hr’g. Tr. Feb. 2, 18:17-19:16.

in leachate (Ex. 903 at 42) and he then attempted to find these indicators in groundwater data. Ex. 903 at 42. Along the way, whenever he found something in groundwater that was not an indicator, he counted that against the possibility of contamination. Hr'g Tr. Feb. 2, 241:1-5.

The first version of Mr. Seymour's matching analysis used onsite leach test data and three indicators – barium, boron and sulfate. Ex. 903, Table 5-1, Ex. 904, Table 5-5. Flaws in Mr. Seymour's primary matching analysis were explained in detail in Complainants' Motion to Strike, and summarized in Comp. Br. at 22-24. Very briefly, Mr. Seymour found all three indicators in every groundwater monitoring well at all four sites. As Mr. Seymour eventually conceded, this should have been a 100% match. Comp. Br. at 22-24.

The "backup" version of Mr. Seymour's matching analysis used offsite leachate data from the Electric Power Research Group (EPRI). Ex. 903, Table 5-2; Ex. 904, Table 5-4. Flaws in Mr. Seymour's backup analysis were also explained in detail in Complainants' Motion to Strike, and are summarized below.

The principal flaw in Mr. Seymour's analysis is that he compared two sets of data that were not amenable to comparison because they had different sensitivities and different detection limits. For example, the EPRI leach test was able to detect antimony concentrations as low as 0.00024 mg/L (Ex. 903, Table 5-2), while the 2014 groundwater monitoring could not detect antimony at concentrations below 0.003 mg/L (Ex. 268P, Table 2) – a difference of more than an order of magnitude. As a result, there is a wide range of antimony concentrations – anything between 0.00024 and 0.003 mg/L – that would be detected by one method (the EPRI leach test) and not the other (the groundwater test). Seymour observes that antimony was detected in EPRI leach test data, but not in any groundwater monitoring data, and concludes that the two datasets do not match. This can be seen, for example, in Table 5-4 of Ex. 904, where the antimony cells

are all shaded green. Antimony is one of the constituents that Seymour includes in his tally of “constituents that are not consistent with indicators of leachate.” *Id.* In short, Seymour concludes, for each well at the four sites, that antimony is a “mismatch,” and he counts that against the possibility that coal ash has contaminated the groundwater.

Seymour’s approach fails because the data do not support his results or his conclusions. Continuing with the example of antimony, the groundwater results are all reported as “ND,” or “not detected.” *Id.* This does not mean that there is no antimony in these wells. It only means that the concentration of antimony was less than the detection limit. In this case, the detection limit was 0.003 mg/L, so the groundwater had something between zero and 0.003 mg/L of antimony. This is perfectly consistent with the range of antimony concentrations found in the EPRI leach test data – 0.00024 to 0.00062 mg/L. Given these concentrations, it is inaccurate and misleading to say that the leach test data and the groundwater data do not match. Even if the groundwater were pure, undiluted leachate with the maximum concentration of antimony (0.00062 mg/L), the antimony would not be detected by the groundwater test. In short, Seymour assumes that there is a “mismatch” without any factual support.

This flaw is made clear in Seymour’s testimony, where he concedes that leachate and groundwater could have the same concentration of antimony – a situation that should be a “match” – and his analysis would nonetheless describe it as a “mismatch.” Hr’g Tr. Feb. 2, 265:16-267:4 (Seymour agreeing that 0.6 micrograms of antimony per liter would be detected in the EPRI leach test, but not in the Midwest Generation groundwater test). Again, the leachate and the groundwater could be a perfect match, with the exact same concentration of antimony, and Seymour’s methods would find a “mismatch.”

MWG suggests, incorrectly, that “Complainants’ focus on only one constituent fails to see the forest for the trees.” MWG Br. at 50. First of all, Complainants did not focus on only one constituent. During the hearing, as MWG is surely aware, Complainants asked about one constituent as an example, to explain a systematic flaw that applies equally to a much longer list of constituents.²⁹ For example, the EPRI leach test could detect chromium concentrations as low as 0.00066 mg/L (Ex. 903, Table 5-2), but Midwest Generation’s groundwater monitoring could not detect concentrations lower than 0.005 mg/L (Ex. 268P, Table 2). The EPRI leach test data could detect mercury concentrations as low as 0.0000054 mg/L (Ex. 903, Table 5-2), but Midwest Generation’s groundwater monitoring could not detect concentrations lower than 0.0002 mg/L.

Complainants did not miss the forest for the trees. The matching analysis performed by MWG’s expert was systematically flawed and does not support his conclusions. In the end, Mr. Seymour’s needlessly complicated analysis obscured what should be very straightforward: coal ash contamination can be identified by looking for indicators of coal ash in groundwater. Boron and sulfate are the leading indicators of coal ash, as MWG admits. MWG Br. at 6, 12. Boron and sulfate were both detected in onsite leachate, and boron and sulfate were detected in every single monitoring well at the four MWG properties. The leachate and the groundwater match. Further adding to the evidence of contamination, as discussed throughout Complainants’ initial post-hearing brief and the current reply brief, boron and sulfate frequently exceed background values by large margins, and often exceed Illinois groundwater standards,

²⁹ Antimony, chromium, cobalt, lead, manganese, mercury, nickel, selenium, and zinc all had detection limits and minimum concentrations in the EPRI leach test data that were lower than the detection limits in groundwater, making them all susceptible to the flaw in Seymour’s methodology. Ex. 903, Table 5-2, and Ex. 268P, Table 2.

typically in wells that are downgradient of, or within, known coal ash areas. The facts show, quite clearly, that the groundwater is being contaminated by coal ash.

VIII. MWG'S ATTACKS ON COMPLAINANTS' EXPERT ARE UNFOUNDED AND DO NOT AFFECT THE CREDIBILITY OF HIS TESTIMONY

MWG, during the hearing in this matter, made a concerted effort to attack Dr. Kunkel's credibility. That effort failed, and so MWG now makes the unfounded allegation that Dr. Kunkel's opinions "have no evidentiary basis." MWG Br. 57. This is truly absurd. Dr. Kunkel's curriculum vitae (Ex. 400), reports (Exhibits 401, 407 and 408) and testimony show that he has decades of relevant professional experience, that he reviewed thousands of pages of documents and a large volume of data, and that he analyzed and interpreted all of this information using his unique expertise. As described in more detail below, MWG's specific allegations are as unfounded as their general accusation.

MWG tried, and failed, to undermine Dr. Kunkel's credibility at the hearing by attacking his memory. For example, MWG suggested that Dr. Kunkel misremembered the dates on which the ash ponds at Waukegan were relined. Hr'g Tr. Oct. 27, 73:14-74:3. Dr. Kunkel did not misremember anything. His confusion stems from ongoing confusion on the part of MWG employees, which was reflected in record evidence.³⁰ Hr'g Tr. Jan. 29, 119:5-120:8; Ex. 34, MWG13-15_23616 (showing a 2002 liner construction date for the Waukegan ash ponds); Ex. 44, MWG13-15_44615 (email in which MWG employee Maria Race states that the Waukegan

³⁰ The confusion on the part of MWG employees continued up to and through the hearing. Hr'g Tr. Oct. 23, 190:20-192:17 (MWG employee Maria Race stating that the ponds were relined in 2002 and 2003); Hr'g Tr. Oct. 24, 169:13-17 (Maria Race stating that the ponds at Waukegan were *not* relined in 2002); Hr'g Tr. Jan. 30, 29:21-24 (Race stating that the Waukegan ash ponds were relined "in the earlier 2000 time frame like 2003, 2005, somewhere in there"); *id.* at 115:12-116:14 (Maria Race stating that the ponds were not relined before 2003); Joint Agreed Stipulations 35-36 (the two ponds were actually relined in 2003 and 2004).

ash ponds were relined “in 2002 time frame”); Joint Agreed Stipulations 35-36 (the two ponds were actually relined in 2003 and 2004).

MWG suggested that Dr. Kunkel had either misremembered the record in an unrelated case, pulling up a video recording of his deposition in an effort to discredit him.³¹ Hr’g Tr. Oct. 27, 98:15-98:19 ; *id.* at 98:15-19 (“Q. ... So it appears your memory may be confused on that point. Mr. Russ: Object. Hearing Officer Halloran: Sustained.”). Later testimony established that Dr. Kunkel had not misremembered anything – his memory of the record in the unrelated case was accurate. Hr’g Tr. Jan. 29, 95:2-98:17.

Turning to the specific allegations in MWG’s brief, MWG suggests that Kunkel’s conclusions were predetermined, and that “Kunkel was specifically told the conclusion he was supposed to reach.” MWG Br. at 58. Dr. Kunkel’s testimony shows that this is not true. By the time of the correspondence between Complainants and Dr. Kunkel cited by MWG, Dr. Kunkel had already reviewed a large amount of data and reached his own tentative conclusions regarding the coal ash ponds at the four sites. Hr’g tr. Jan. 29, 84:14-86:6. Dr. Kunkel subsequently reviewed much more data and refined his opinions in light of the additional data, notably developing the conclusion that coal ash located outside of the ash ponds was a large source of contamination. *Id.* Dr. Kunkel’s opinions are his own, and are based on a large amount of record evidence as interpreted through the lens of Dr. Kunkel’s expertise.

MWG twists Dr. Kunkel’s testimony and alleges that Dr. Kunkel failed to identify any source of water pollution at the four power plants and even went as far to allege that Dr. Kunkel explicitly stated that he could not identify what was causing such pollution. MWG Br. at 42. Yet the transcript is clear about what Dr. Kunkel was saying: Coal ash is contaminating

³¹ MWG’s theatrics were unexpectedly amplified when Dr. Kunkel arrived at the hearing wearing the same sweater he wore during his deposition, allowing for an interesting double image of the same man in the same sweater, both on screen and in person. Yet MWG ultimately failed to make the point.

the groundwater and the only possible sources are either the coal ash impoundments (ponds), the unlined coal ash repositories at all four power plants, or both. *See, e.g.*, Hr'g Tr. Oct. 26, 76:5-10, 83:10-24, 84:21-85:4, 129:20-130:1; Hr'g Tr. Oct. 27, 45:8-13, 189:15-24; Hr'g Tr. Jan. 29, 73:6-17. Dr. Kunkel's expert report and reply report also clearly conclude that coal ash is the cause of the groundwater contamination at all four power plants, and that MWG is responsible for such coal ash and its subsequent water pollution. *See* Comp. Ex. 401, Comp. Ex. 407.

MWG next suggests that his testimony and reports were "riddled with errors." MWG Br. at 58. There were in fact relatively few errors in Dr. Kunkel's testimony and reports, almost none of them substantive or material to his conclusions. MWG spent a considerable amount of time going over the list of citations in Dr. Kunkel's report, Hr'g Tr. Oct. 27, 138:5-176:14. Most of the errors identified by MWG were clerical, and would have no bearing on Dr. Kunkel's opinions. For example, Dr. Kunkel cited a report that was originally accompanied by a spreadsheet. Dr. Kunkel had both. The version produced in discovery did not include the spreadsheet. This was not Dr. Kunkel's error, and he did not cite the wrong document. Hr'g Tr. Oct. 27, 154:14-155:9. Many of the remaining "errors" were either not errors at all, or were inconsequential. Hr'g Tr. Jan. 29, 115:9-138:6.

Some of the errors identified by MWG should be attributed to MWG, not Dr. Kunkel. For example, as described above, Dr. Kunkel originally misunderstood the relining history at Waukegan, but that was because MWG itself misunderstood the relining history at Waukegan. Hr'g Tr. Jan. 29, 119:5-120:8. In any event, the error did not affect Dr. Kunkel's opinions. *Id.* And while Dr. Kunkel did not originally use the correct values for the elevation of the Waukegan ash ponds, that was because he relied on a document prepared by MWG's consultant. Hr'g Tr.

Oct. 27, 125:14-126:14. While Dr. Kunkel originally believed that mercury exceeded Illinois groundwater standards at Powerton, his belief was based on MWG groundwater reports (subsequently revised) showing mercury concentrations in excess of Illinois groundwater standards. Hr'g Tr. Oct. 27, 176:15-177:4; Ex. 24.5, MWG13-15_39538. Finally, there was some confusion about boring logs at Joliet 29 because other entities had attached the wrong boring logs to a report. *See, e.g.*, Hr'g Tr. Jan. 29, 117:15-118:5. This did not affect Dr. Kunkel's conclusion that there is ash buried outside of the ash ponds at Joliet 29, however, because that conclusion was based on multiple sources. *Id.* at 118:6-119:4. In short, some of the "errors" in Dr. Kunkel's reports were ultimately due to errors in MWG documents, and they were generally not material to Dr. Kunkel's conclusions.

MWG did find numerous errors in "summary tables at the end of Complainants' Ex. 411." MWG Br. at 59. Complainants acknowledge these errors, have not cited these tables in any briefing, and have instead relied on the data provided by MWG in Exhibits 809-812. *See* Comp. Br. at Appendices A and B. However, these errors had nothing to do with Dr. Kunkel. As he explained in his testimony, Dr. Kunkel did not prepare these tables, he did not use the tables as source data for the tables and charts that he prepared using his own database, he did not use the tables in the preparation of his reports, and the tables were not material to his opinions. Hr'g Tr. Oct. 27, 84:14-85:7, 232:4-233:23; Hr'g Tr. Jan. 29, 74:19-77:12.³²

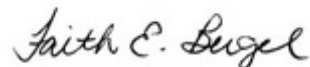
³² Although counsel for MWG asked whether "the data in this table marked as pages 1 through 37 is the data that informs the rest of your opinions," and Dr. Kunkel replied in the affirmative, Hr'g Tr. Oct. 27, 85:11-14, this was clearly a miscommunication, as the data in "pages 1 through 37" were an extracted subset of the data (exceedances), and Dr. Kunkel obviously used the entire dataset in order to calculate summary statistics, plot data over time, etc.

CONCLUSION

As discussed above, the evidence presented at the Hearing provides the Board with ample support to find that coal ash is causing groundwater contamination at the four MWG plants. MWG was aware of coal ash in unlined ponds and fill areas but failed to remove the coal ash, failed to prevent that coal ash from contaminating groundwater, and failed to investigate the extent and nature of the coal ash outside of the ash ponds. There is no support for MWG's argument that, if a facility takes "extensive precautions" to prevent groundwater contamination, it can avoid liability for its water pollution, open dumping, and exceedances of Class I groundwater quality standards. The action that MWG took was neither extensive nor sufficient. As conceded by MWG's expert, the groundwater contamination at Powerton, Waukegan and Will County power plants has not improved over time. For these reasons, MWG is liable for the ongoing groundwater contamination at the plants in violations of Sections 12(a), 12(d) and 21(a) of the Act (codified at 415 ILCS 5/12(a), 12(d) and 21(a)) and violations of 35 Ill. Adm. Code §§ 620.115, 620.301(a), 620.405.

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Respectfully submitted,



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APPENDIX A: COMPLAINANTS' SELECTED RESPONSE TO RESPONDENT MIDWEST GENERATION, LLC'S STATEMENT OF FACTS

Respondent Midwest Generation ("MWG") initial post-hearing brief included both a narrative argument and a "Statement of Facts" ("SOF"). This SOF is problematic in two ways. First, MWG effectively submitted a 134-page brief, in violation of the 85-page limit established by the Hearing Officer. More important, however, is the fact that the SOF is profoundly misleading. To begin with, the case is not in a summary judgment posture, where it would be more appropriate to set forth certain "undisputed" facts. Complainants disagree with the implication that any of the facts in MWG's SOF are "undisputed." This leads to the second problem with the SOF, which is that many of the so-called facts are incorrect, or are not "facts" at all, but are instead arguments masquerading as facts. As described in more detail below, Complainants dispute and take issue with MWG's SOF and urge the Board to acknowledge that none of the "facts" in the SOF are undisputed.

With regard to the page limit, Complainants note that MWG's 66-page SOF, when combined with its 68-page narrative brief, violates both the letter and intent of the Board's modified page limits. Pursuant to Hearing Officer Halloran's May 30, 2018 Order setting forth the briefing schedule, parties were instructed to file "a brief containing 85 pages." IPCB Hr'g Order. This was presented as an explicit exception to Board Rule 101.302(k), which provides that "[n]o motion, brief in support of motion, or brief may exceed 50 pages . . . not includ[ing] appendices containing relevant material." 35 Ill. Admin. Code 101.302(k). Thus, MWG was obligated to include a complete brief that was no longer than 85 pages.

Instead of adhering to this limit, MWG provided its Statement of Fact as a separate “appendix,” but included in that “appendix” all of the facts MWG felt were relevant to the case. Under Board Rules, these facts are actually part of the brief: Section 101.202 of the Board rules defines a “Brief” as “a written statement that contains a **summary of the facts of a proceeding**, the pertinent laws, and an argument of how the law applies to the facts supporting a position.” 41 Ill. Reg. 101.202 (emphasis added). Taken together, MWG’s legal briefing and statement of facts cover 134 pages of text, well beyond the 85-page limit Hearing Officer Halloran imposed on the parties. Complainants would be prejudiced if the Board considered all 134 pages of text submitted by MWG, when Complainants’ own arguments were limited to 85 pages.

This is not the first time MWG has used this misinterpretation of Board Procedure to secure for itself additional briefing. On July 19, 2016, MWG filed its Response to Complainants’ Motion for Partial Summary Judgment (“Response”). The Response included both a 48-page brief and a 49-page “Response to Complainants’ Statement of Undisputed Facts,” filed as “Appendix A.” MWG’s Response and Appendix A (together with a table of attachments) totaled 101 pages. MWG Resp. Br. and Appendix A. On August 2, 2016, Complainants moved to strike portions of that filing as noncompliant with the Board’s procedural rules; that motion was denied, but it shows that MWG has made a habit of violating Board procedures. Comp. Motion to Strike. For that reason, and also because Complainants would be prejudiced if the Board fully considered MWG’s impermissibly long opening brief, Complainants respectfully request that the Board disregard all of MWG’s briefing to the extent it surpasses the 85-page limit. This would require the Board to ignore all of the text falling on or after page 18 of MWG’s “Appendix A.” In addition, and in the alternative, Complainants have provided below responses to a selection of MWG’s factual statements that are demonstrably false based on the clear record evidence in this

case. Complainants believe that many additional “facts” in Appendix A are misleadingly phrased or otherwise unreliable, but in the interest of simplifying the Board’s analysis, Complainants are limiting these responses to MWG’s most egregious inaccuracies.

MWG Statement of Fact 42. Fly ash and bottom ash are not hazardous. 10/27/18 Tr. p. 178:10-15 (Testimony of Kunkel); 1/29/18 Tr. p. 208:11-17 (Testimony of Race); MWG Ex. 901, p. 8 (Seymour Presentation, SOF Attachment 1).

Complainants’ Response: This statement is misleading and, for all practical purposes, false. The U.S. EPA has decided not to regulate coal ash using its statutory “Subtitle C” hazardous waste authority at the present time, but it has also deferred a determination as to whether coal ash is, for purposes of federal solid waste law, “hazardous.” 80 Fed. Reg. at 21318-21320. Yet EPA has readily acknowledged that coal ash contains hazardous substances. *See, e.g.,* 80 Fed. Reg. 21396:

EPA’s damage cases and risk assessments indicate there is *significant potential for CCR landfills and CCR surface impoundments to leach hazardous constituents into groundwater*, impair drinking water supplies and cause adverse impacts on human health and the environment. Indeed, *groundwater contamination is one of the key environmental and human health risks EPA has identified with CCR landfills and CCR surface impoundments.*

In addition, one of the criteria that EPA uses to determine whether to list a waste as a “hazardous waste” is the existence of so-called “damage cases,” or instances of damage caused by a solid waste. Regarding this criterion, EPA observed that:

Damage cases generally provide extremely potent evidence in hazardous waste listings. In this regard, EPA notes that the number of damage cases collected for this [coal ash] rulemaking (157) is by far the largest number of documented cases in the history of the RCRA program.

80 Fed. Reg. at 21452. In short, though EPA has not yet determined whether coal ash is “hazardous waste” for purposes of federal solid waste law, the Agency has acknowledged that coal ash contains hazardous substances, and has also acknowledged that these substances create serious risks.

MWG Statement of Fact 44. The MWG fly ash and bottom ash are beneficially reused in different manners, including cement replacement, geotechnical stabilization, mine stabilization, structural fill, and roofing shingles. MWG Ex. 600 (LaFarge Ash Movements by Movements by Station); /29/18 Tr. p. 174:1-176:14, 177:2-178:5 (Testimony of Race); 1/31/18 Tr. p. 70:6-7, 71:9-11 (Testimony of Kelly); 1/31/18 Tr. p. 225:2-4, 245:7-8 (Testimony of Veenbaas); 2/1/18 Tr. p. 219:1-3 (Testimony of Seymour).

Complainants’ Response: This is a red herring, as any future beneficial use has no bearing on current and ongoing disposal and contamination from material that is clearly, at the present time,

“waste.” The statement is also misleading and overly broad. Some of the ash from the ash ponds may be beneficially reused, but there is no evidence that the coal ash in the fill areas or inactive ponds at the four MWG coal plants could ever meet the definition of “beneficial reuse,” and its current placement cannot be described as “beneficial reuse” under either state or federal law.

Under state law, 415 ILCS 5/3.135 requires that coal ash used as structural fill be “designed and constructed according to ASTM standard E2277-03 or Illinois Department of Transportation specifications” and “in an engineered application or combined with cement, sand, or water to produce a controlled strength fill material and covered with 12 inches of soil unless infiltration is prevented by the material itself or other material.” The ASTM standard cited above can be found at Ex. 902. MWG’s expert, John Seymour, “worked on” and “helped to revise” this standard himself and testified about its contents at the hearing. Hr’g Tr. Feb. 1, 219:5-17; Hr’g Tr. Feb. 2, 288:2-290:4. The ASTM standard requires a detailed decision-making process that includes, among other things, ensuring that the ash is placed above the water table, a review of historic contamination, and “leachability or material characterization” testing. Ex. 902 at MWG13-15_50260-50262. Mr. Seymour – who, again, helped to write the revised standard – testified that he has not seen any documentation that any of the coal ash fill at the four sites was placed using these screening procedures. Hr’g Tr. Feb. 2, 290:5-296:4.

Under federal law, 40 C.F.R. § 257.53 requires that all beneficial uses “meet relevant product specifications, regulatory standards or design standards,” and for beneficial use of more than 12,400 tons, requires documentation showing that the beneficial use will not lead to contamination. Again, there is no evidence in the record that the coal ash fill at the four sites was placed with any concern for these or similar considerations. In short, the placement of coal ash fill at the four sites does not meet state and federal guidelines and does not constitute beneficial use.

MWG Statement of Fact 48. The purpose of the NLET analysis is to confirm that the historical ash met the coal combustion by-product (“CCB”) criteria under 415 ILCS 5/3.135. MWG Ex. 901, p. 8 (Seymour Presentation, SOF Attachment 1); 2/1/18 Tr. p. 160:7-15.

Complainants’ Response: While this statement may be true for the ash that was tested, it has no bearing on ash areas that were not tested. As described in more detail below in response to SOF 59, MWG did not test any of the “historic” ash that Complainants allege to be causing contamination. Complainants also note that the leach test in question does not accurately simulate leaching in the field (Ex. 407 at 4-5).

MWG Statement of Fact 49. Coal ash may be classified as CCB and may be beneficially used, including as structural fill, foundation backfill, antiskid material, athletic tracks, or foot paths. 415 ILCS 5/3.135; MWG Ex. 293; 10/26/17 Morning Tr. p. 38:4-39:19 (Testimony of Gnat).

Complainants’ Response: While this is generally true when the coal ash and the project meet certain criteria and follow certain procedures (415 ILCS 5/3.135; 40 C.F.R. § 257.53), it is not true for any onsite coal ash in inactive ponds or fill areas at the four MWG facilities. *See* response to SOF 44.

MWG Statement of Fact 50. The CCB criteria requires that the material has no metals above the Illinois Class I groundwater standards and thus can safely be used for various reason including structural fill, pavement and shingles. 415 ILCS 5/3.135; 2/1/18 Tr. p. 159:3-9, 160:7-15, (Testimony of Gnat); 2/1/18 Tr. p. 217:21-218:3 (Testimony of Seymour).

Complainants' Response: Complainants note that metals detected through groundwater monitoring have exceeded Illinois Class I groundwater standards at all four power plants hundreds of times since groundwater monitoring began in 2010. Comp. Br. at Appendix A. *See also* response to SOF 49.

MWG Statement of Fact 51. Illinois law requires that the ASTM D3987-85 test method be used to determine whether coal ash can be used for beneficial reuse and classified as CCB. 2/1/18 Tr. p. 170:9-14 (Testimony of Gnat); 10/26/17 Morning Tr. p. 39:1-12 (Testimony of Gnat).

Complainants' Response: Complainants note that the leach test in question does not accurately simulate leaching in the field (Ex. 407 at 4-5). *See also* responses to SOFs 48 and 49.

MWG Statement of Fact 55. The MWG ash samples taken from the MWG ash ponds analyzed after 2012 were analyzed with ASTM D3987-85, and were also analyzed within the ASTM D3987-12 temperature range, so the ash sample results met the requirements of the 2012 ASTM standard. 2/1/18 Tr. p. 173:19-174:9 (Testimony of Gnat), Comp. Ex. 284 (Will County CCB Determination).

Complainants' Response: *See* response to SOF 48. The ash samples in question (Comp. Ex. 284) were not tested for sulfate, and were not representative of coal ash buried in the ground at Will County or buried in the ground at any other plants.

MWG Statement of Fact 59. Between 2004 and 2015, MWG performed investigations of historic ash in fill materials at the Joliet 29, Powerton and Will County Stations also using the NLET method to confirm that the historic ash met the CCB criteria under 415 ILCS 5/3.135. MWG Ex. 901, p. 9 (Seymour Presentation, SOF Attachment 1); Comp. Ex. 284 (Will County CCB Determination) and 293 (Revised Joliet 29 CCB Report); MWG Ex. 635 (2004 Limestone Basin and Bottom Ash Sampling); 2/1/18 Tr. p. 275:5-276:18 (Testimony of Gnat).

Complainants' Response: MWG did not perform investigations of the historic fill areas alleged by Complainants to be causing groundwater pollution. The samples to which MWG refers came from above-ground coal ash deposits at three of the four sites. At Joliet 29, the sampled ash came from "areas where ash and slag resultant from the combustion of [coal] were formerly placed on the ground surface." Ex. 293, MWG13-15_19576.³³ At Powerton, the sampled ash came from within the former Limestone Runoff Basin. Ex. 903 at 47; Hr'g Tr. Feb. 2, 170:5-20; Ex. 635;

³³ MWG's expert cites this document in his initial report under the heading "Investigations of Potential Leaching Characteristics of Historical Ash in Fill Materials at Sites," and subheading "Joliet #29 Investigation." Ex. 903 at 46.

Hr'g Tr. Jan. 30, 67:24-68:24. At Will County, the sampled ash came from a "CCR placement area" that was clearly visible as an above-ground pile in a photograph included in the sampling report. Ex. 903 at 48; Ex. 901 at slide 66; Ex. 284, MWG13-15_49569. At Waukegan, no ash outside of the ash ponds has been leach tested. Hr'g Tr. Feb. 2, 192:16-19. In other words, MWG did not sample or otherwise "perform investigations of" either of the Northeast or Southwest Ash Landfills at Joliet 29, any of the coal ash fill or the Former Ash Pond at Powerton, or the coal ash fill along the eastern edge of the ash ponds at Will County, and did not sample the Former Slag/Fly Ash Storage Area or any other ash at Waukegan other than the ash in the ash ponds. *See also* response to SOF 48.

MWG Statement of Fact 60. The results of all the NLET tests of historic ash in fill areas at the Stations showed that the historic ash also met the CCB criteria and could be used for beneficial reuse. 10/26/17 Morning Tr. p. 40:20-41:12 (Testimony of Gnat); 2/1/18 Tr. p. 168:6-24 (Testimony of Gnat); Comp. Ex. 284 (Will County CCB Determination) and 293 (Revised Joliet 29 CCB Report); MWG Exs. 635 (2004 Limestone Basin and Bottom Ash Sampling); MWG Ex. 901 at p. 9 (Seymour Presentation, SOF Attachment 1); Ex. 903, p. 46 (Seymour Expert Report); 2/1/18 275:5-276:24 (Testimony of Seymour).

Complainants' Response: This is false. *See* responses to SOFs 48, 49 and 59.

MWG Statement of Fact 172. The average groundwater elevation of the groundwater under the Powerton Ash Surge Basin is 447 feet. MWG Ex. 901, p. 30 (Seymour Presentation, SOF Attachment 1); MWG Ex. 903, Fig. 5-4 (Seymour Expert Report); 2/2/18 Tr. p. 56:2-57:14 (Testimony of Seymour).

Complainants' Response: Complainants note that, for purposes of the federal coal ash rule, the "average" groundwater elevation is not relevant. 40 C.F.R. § 257.60 requires that existing impoundments have "a base that is located no less than 1.52 meters (five feet) above the *upper limit of the uppermost aquifer*, or must demonstrate that there will not be an intermittent, recurring, or sustained hydraulic connection between any portion of the base of the CCR unit and the uppermost aquifer due to normal fluctuations in groundwater elevations (*including the seasonal high water table*)." (emphasis added). However, at least one of the ash ponds at Powerton is located less than five feet above the average groundwater level at the site, and is in fact *below* that level, meaning that it is constantly in contact with groundwater. *See* Comp. Br. at 43.

MWG Statement of Fact 184. The average groundwater elevation of the groundwater under the Powerton Bypass Basin is 450.5 feet. MWG Ex. 901, p. 31 (Seymour Presentation, SOF Attachment 1); MWG Ex. 903, p. 5-7 (Seymour Expert Report); 2/2/18 Tr. p. 56:2-57:14 (Testimony of Seymour).

Complainants' Response: *See* response to SOF 172.

MWG Statement of Fact 191. The average groundwater elevation of the groundwater under the Powerton Secondary Ash Basin is 441.5 feet. MWG Ex. 901, p. 32 (Seymour Presentation, SOF

Attachment 1); MWG Ex. 903, Fig. 5-5 (Seymour Expert Report); 2/2/18 Tr. p. 59:4-7 (Testimony of Seymour).

Complainants' Response: *See* response to SOF 172.

MWG Statement of Fact 192. The Powerton Secondary Ash Settling Basin receives de minimis ash from the ash surge basin. 1/31/18 Tr. p. 127:4-6 (Testimony of Kelly); MWG Ex. 901, p. 28 (Seymour Presentation, SOF Attachment 1).

Complainants' Response: This is both misleading and irrelevant. The Secondary Ash Settling Basin is, as its name suggests, an ash settling basin. In case this needs elaboration, a consultant for MWG listed the "use" of the Secondary Ash Settling Basin as "ash settling." Comp. Ex. 34 at MWG13-15_23615. Regardless of how MWG now chooses to describe this impoundment, the secondary ash settling basin has impounded coal ash.

MWG Statement of Fact 193. The Powerton Secondary Ash Basin had never been emptied before it was cleaned out in preparation for the relining project in 2013. 1/31/18 Tr. p. 127:17-128:2 (Testimony of Kelly); 1/30/18 Tr. p. 60:15-19 (Testimony of Race).

Complainants' Response: *See* response to SOF 192.

MWG Statement of Fact 198. The Powerton Secondary Ash Basin performs the same function as the Joliet 29 Ash Pond 3 and does not accumulate ash. 1/30/18 Tr. p. 102:2-12 (Testimony of Race).

Complainants' Response: This is false. *See* response to SOF 192.

MWG Statement of Fact 203. The average groundwater elevation of the groundwater under the Powerton Metal Cleaning Basin is 445 feet. MWG Ex. 901, p. 29 (Seymour Presentation, SOF Attachment 1); MWG Ex. 903, Fig. 5-6 (Seymour Expert Report); 2/2/18 Tr. p. 56:2-57:14 (Testimony of Seymour).

Complainants' Response: *See* response to SOF 172.

MWG Statement of Fact 255. The groundwater at the Waukegan Station generally flows to the east, southeast, but there is some divergence of the groundwater flow that goes towards the north, northwest towards the intake channel of Lake Michigan. MWG Ex. 901, p. 49 (Seymour Presentation, SOF 25 Attachment 1); MWG Ex. 813 (Waukegan 2017 Groundwater Flow Map); 2/1/18 Tr. p. 154:22- 155:9.

Complainants' Response: The exhibits cited do not show any groundwater flow to the northwest. MWG presumably meant "northeast."

MWG Statement of Fact 265. An investigation of the General Boiler Property showed that the property contained arsenic above remediation benchmarks and contains a fly ash fill area. MWG Ex. 623, p. MWG13- 15_472 (Powerton Supplemental Response to Illinois EPA VN).

Complainants' Response: This statement is unsupported by anything more than thin anecdotal evidence. The only evidence in the record of such an area is a single passing reference on a citizen groups' website.³⁴ As MWG's expert observed, that is "not the same as having a consultant's report in front of you." Hr'g. Tr. Feb. 2, 97:22-100:13. Aside from this website, there is no evidence of a fly ash area on the General Boiler Property in the record. There was no witness testimony confirming the existence of this fly ash area, there are no soil borings from that part of the General Boiler Property, and there are no boron or sulfate data that could be used to identify coal ash contamination coming from that area. Hr'g. Tr. Feb. 2, 186:16-22.

MWG Statement of Fact 363. The groundwater flow under the ash ponds at Will County is to the west, towards the Des Plaines River. MWG Ex. 901, p. 63 (Seymour Presentation, SOF Attachment 1); 2/1/18 Tr. p. 164:18-22 (Testimony of Gnat).

Complainants' Response: This may be true in a general sense, but there is also evidence of localized flow away from the ash ponds in all directions. *See, e.g.*, Comp. Ex. 36, MWG13-15_14096 ("At Will County, for example, there is strong hydraulic evidence to suggest that everything is downgradient, that the ponds may be draining in multiple directions towards either the river or the canal.").

MWG Statement of Fact 485. Complainants' expert, Kunkel, agreed that the facilities do not have the possibility to impact offsite drinking water. 10/27/18 Tr. p. 182:3-7 (Testimony of Kunkel).

Complainants' Response: This is misleading and false. In the context of a line of questions about current use, Dr. Kunkel agreed that there are currently no potable wells within a certain distance downgradient of the sites. Dr. Kunkel did not testify that there would never be a threat to future drinking water users. *See* Hr'g Tr. Oct. 27, 181:4-182:7.

MWG Statement of Fact 522. The one place to look for all the relevant groundwater data at the four MWG Stations is in the data summary tables (MWG Exhibit 809 through 812) because the tables contain all the wells and all the relevant sampling data for the wells. 2/1/18 Tr. pp. 94:4-96:3, 96:4-15, 166:11-17 (Testimony of Gnat); MWG Exs. 809-812 (Tables of Groundwater Analytical Results for MWG Stations: Joliet #29, Powerton, Waukegan, and Will County).

Complainants' Response: This is not accurate. While Complainants have chosen to rely on MWG's Exhibits 809-812 in their post-hearing briefs, they have done so for simplicity's sake.

³⁴ The website appears to be hosted by the "Task Force on Waukegan Neighborhoods." MWG Ex. 623.

The data in Exhibits 809 through 812 are more than enough to establish the presence of groundwater contamination and liability. However, there are more monitoring wells than those shown in Exhibits 809-812, and more monitoring data. *See, e.g.,* Ex. 411 (showing both “dissolved” and “total recoverable” groundwater monitoring data). *See also* Complainants’ Response to Midwest Generation, LLC’s Objection and Appeal From Hearing Officer’s Ruling to Admit Complainants’ Exhibits 204G-209G, 210H-215H, 222J-228J, 236L-241L, and 261 (Nov. 28, 2017) (arguing that the “CCR data” are not duplicative of the “CCA data”); Order of the Board (Jan. 25, 2018) (affirming the admission of the CCR data as non-duplicative evidence).

MWG Statement of Fact 561. There were a number of reasons why MWG did not think that the current pond operations were the source of the constituents in the groundwater. 1/30/18 Tr. p. 28:18 (Testimony of Race).

- ...**[bullet 4]** the ash ponds at the MWG stations are lined. 1/29/18 Tr. p. 188:4-19 (Testimony of Race); 1/30/18 Tr. p. 29:11-16 (Testimony of Race).

Complainants’ Response: This is may be true in an informal sense of the term “lined,” but the liners do not meet the criteria of the federal coal ash rule. Hr’g Tr. Feb. 2, 143:5-148:4; 40 C.F.R. § 257.71(3). The federal coal ash rule states that

[a]n existing CCR [coal combustion residual] impoundment is considered to be an existing unlined CCR surface impoundment if either (i) The owner or operator of the CCR unit determines that the CCR unit is not constructed with a liner that meets [the rule’s liner criteria]; or (ii) The owner or operator fails to document whether the CCR unit was constructed with a liner that meets [the rule’s liner criteria].

40 C.F.R. § 257.71(3). As a matter of federal law, all of MWG’s ash ponds are “unlined” and will therefore have to be closed. *See, e.g.,* Comp. Br. at 43; Hr’g Tr. Feb. 2, 143:5-148:4 (none of the liners at the four MWG coal plants meet the liner criteria in the coal ash rule); *Utility Solid Waste Activities Group, et al., v. EPA*, D.C. Circuit Court of Appeal no. 15-1219, unpublished opinion (Aug. 21, 2018) (vacating 40 C.F.R. § 257.101 and holding that EPA must prohibit the continued operation of all unlined coal ash impoundments).

MWG Statement of Fact 561. There were a number of reasons why MWG did not think that the current pond operations were the source of the constituents in the groundwater. 1/30/18 Tr. p. 28:18 (Testimony of Race).

- ... **[bullet 6]** When MWG relined the next five ash ponds at Joliet 29, Will County and Powerton MWG found that the underlying poz-o-pac was in excellent condition. 1/30/18 Tr. p. 29:16-20 (Testimony of Maria Race).

Complainants’ Response: This is a self-serving interpretation of conflicting evidence. Some of the poz-o-pac encountered by MWG may have been in good condition, but there is other evidence in the record – such as documented cracks that allowed water to pass through the liners – to suggest that some of the 40-year-old poz-o-pac was not in excellent condition. *See, e.g.,* Comp. Br. at 65-66; Comp. Ex. 303; Hr’g Tr. Oct. 24, 214:5-215:12.

CERTIFICATE OF SERVICE

I hereby certify that the foregoing **CITIZENS GROUP'S POST-HEARING BRIEF** was served electronically to all parties of record listed below on July 20, 2018.

Respectfully submitted,

/s/ Akriti Bhargava

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