BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

MIDWEST GENERATION, LLC	)	
	)	
Petitioner,	)	PCB 2021-109
	)	
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY	)	
	)	
Respondents,	)	

NOTICE OF FILING

To: See attached service list

PLEASE TAKE NOTICE that I have today electronically filed with the Office of the Clerk of the Pollution Control Board Petitioner Midwest Generation, LLC's Post-Hearing Brief in Support of Its Petition for a Variance and Extension of Deadlines for the Metal Cleaning Basin at the Powerton Station, a copy of which is herewith served upon you.

Dated: August 9, 2021

MIDWEST GENERATION, LLC

By: /s/Kristen L. Gale

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CERTIFICATE OF SERVICE

The undersigned, an attorney, certifies that a true copy of the foregoing Notice of Filing, and Petitioner Midwest Generation, LLC's Post-Hearing Brief in Support of Its Petition for a Variance and Extension of Deadlines for the Metal Cleaning Basin at the Powerton Station was electronically filed on August 9, 2021 with the following:

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and that copies were sent via e-mail on August 9, 2021 to the parties on the service list.

Dated: August 9, 2021 /s/Kristen L. Gale

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PETITIONER MIDWEST GENERATION, LLC'S POST-HEARING BRIEF IN SUPPORT OF ITS PETITION FOR A VARIANCE AND EXTENSION OF DEADLINES FOR THE METAL CLEANING BASIN AT THE POWERTON STATION

Midwest Generation, LLC ("MWG") has met its burden under the Illinois Environmental Protection Act (the "Act") and Illinois Pollution Control Board ("Board") regulations to show that compliance with the deadlines in the Part 845 Rules for the Metal Cleaning Basin at the Powerton Station would impose an arbitrary and unreasonable hardship. 415 ILCS 5/37(a); 35 Ill. Adm Code 104.238(a). A hardship is "arbitrary and unreasonable" if it outweighs the injury caused by granting the variance. *Marathon Oil Co. v. Illinois EPA*, 242 Ill. App. 3d 200, 206 (5th Dist. 1993) (Board must weigh the hardship to the petitioner against any adverse environmental impact). In other words, if the hardship claimed by the petitioner outweighs any injury that may be caused by granting the variance, the variance should be granted. *Id.*

The evidence here shows that MWG will suffer unnecessary hardship without an extension of the deadlines for collection of the groundwater sampling data, an operating permit application, priority closure category designation, and if applicable, the Category 5 construction permit application for the Metal Cleaning Basin at MWG's Powerton Station. These extensions have no adverse impact on MWG's ultimate compliance with the technical requirements of the Illinois CCR Rule. Rather, the opposite is true. The deadline extensions allow MWG to collect the data

and proceed efficiently through the permitting application process instead of submitting piecemeal information that will likely require modifications and duplicative submittals.

Illinois EPA has not identified any harm to public health or the environment arising from granting the variance. Thus, the balance of the hardships weighs strongly in favor of the Board granting a variance that includes the following:

a. 35 Ill. Adm. Code 845.650(b)(1)(A): an extension until January 31, 2022 of the deadline to collect the eight independent samples from each background and downgradient well that determine the background levels.

b. 35 Ill. Adm. Code 845.230(d)(1): an extension until March 31, 2022 of the deadline to submit an initial operating permit application.

c. 35 Ill. Adm. Code 845.700(c): an extension until March 31, 2022 of the deadline to submit the category designation of the Metal Cleaning Basin's Closure Prioritization under Section 845.700(g).

d. 35 Ill. Adm. Code 845.700(g): an extension until December 1, 2022 of the deadline to submit the Construction Permit application if the Metal Cleaning Basin is designated as a Category 5 CCR surface impoundment.

I. The Agency's Recommendation Demonstrates that the Board Should Grant the Variance.

The Agency has no objection to MWG's requested extension for the submission of the groundwater data, operating permit application, and the priority closure category designation. The Agency agrees that:

1) collecting and analyzing eight independent samples around the Metal Cleaning Basin within 180 days of April 21, 2021 "will not yield high quality background groundwater quality data" and allowing for more time between the groundwater sampling events provides "greater statistical power" and can "account for temporal variation such as seasonal variation in the data." Agency Rec., ¶¶30, 32;

2) allowing an extension of time for submission of the operating permit application would yield a more complete and accurate operating permit application; Agency Rec., ¶35, and

3) a closure category designation "will be more accurate if it considers established groundwater quality background," and the delay in the submission of the category "will not ultimately affect the closure timeline." Agency. Rec., ¶43.

The Agency's only objection concerns the extension of the Category 5 construction permit application deadline. But the Agency did not identify any adverse impact to the public or

environment if this construction permit application deadline was extended. Conversely, the evidence presented shows that it would be an arbitrary and unreasonable hardship on MWG to complete the extensive construction permit application in only four months. *See infra* Sec. III.

II. Neither the Public Health nor the Environment will be Adversely Impacted by Granting the Variance to Extend the Deadlines.

There is no harm to the public or the environment if the Board grants MWG's Petition for Variance. MWG's request is merely for extensions of deadlines, not for any relief from substantive aspects of the Illinois CCR Rule. As Powerton's Station Manager Dale Green testified, MWG intends to comply with the technical aspects of the rule and will close or retrofit the Metal Cleaning Basin pursuant to the requirements of the Illinois CCR Rule. 7/21/21, 28:10-19.

A. The Agency did not Identify Any Adverse Impacts to the Public or the Environment if the Extension of the Deadlines is Granted.

The Agency does not contend that the requested variance will cause any harm. The Agency solely expressed its view that there is a public and environmental benefit to having pollution sources under enforceable operating permits. Agency Rec., ¶52. This variance will not impair that benefit. Considering the number and complexity of the operating permit applications the Agency will receive, the variance's extension of the deadlines will likely have no impact on permitting the Metal Cleaning Basin. Darin LeCrone, the Permit Section Manager for the Agency's Division of Water Pollution Control, agreed that the operation permit applications will be extensive with multiple reports, and that "there will be a lot of information in each application, yeah." 7/21/2021 Tr., p. 115:1-7. Mr. LeCrone also stated that the Agency will likely receive at least twenty operating permit applications on October 31, 2021, and at least eight construction permit applications three months later that will contain even more information. Petitioner's Hearing Exhibit U, 7/21/21 Tr., p. 114:4-20, 116:4-24. Mr. LeCrone testified that the Agency will review each application thoroughly and that the issuance of the permits is expected to take an enormous

amount of effort. 7/21/21 Hearing Transcript 115:22-116:8.[1] Notably, the Agency has no time constraints for its review of permit applications and no regulatory deadline to issue operating permits. 7/21/21 Tr., p. 115:22-116:8. In fact, in the hearing on MWG's Petition for a Variance for the Will County Station, Mr. LeCrone stated that it could take years to get a permit issued because of their complexity. 7/27/2021 Hearing Tr. PCB21-108, p. 118:24-119:15. Because the Agency will be busy reviewing the numerous operating and construction permit applications that will be timely submitted, there is no harm caused by allowing MWG additional time to collect the groundwater data, conduct the statistical analysis, establish the closure prioritization, and submit both of the applications for the Metal Cleaning Basin.

B. <u>There is No Threat to Public Health or the Environment if the Deadlines are Extended.</u>

There would be no adverse impacts from the operation of the Metal Cleaning Basin even if the longest requested deadline extension, a four-month extension of the construction permit application deadline to December 1, 2022, is granted. Mr. Green testified that the Metal Cleaning Basin is typically empty throughout the year. 7/21/2021 Tr., p. 20:21-21:2. It is not a part of the ash sluice system, and is only used periodically. 7/21/2021 Tr., p. 14:11-21. When the basin is used, it is only used for either boiler wash water when the boiler tubes are cleaned or to store dry ash during intermittent maintenance events. 7/21/2021 Tr., p. 14:18-15:11.

MWG's consultant, Richard Gnat of KPRG, evaluated whether there would be any imminent threat to human health and the environment from this requested extension, and found that "quite honestly these impoundments are on property, controlled access, and [there are] no receptors down-gradient. I do not see any imminent threat to human health or the environment if

[1] To provide some context for the level of review involved for each of these permit applications, Mr. Gnat of KPRG, who is leading the preparation of four of MWG's station's operating permit applications including nine CCR surface impoundments, testified that he expects the operating permit application for each CCR surface impoundment to take approximately 600-800 hours to complete. 7/21/21 Tr., p. 48:8-15; 51:4-17.

we have an extension to the deadline here. We're not asking for a huge amount of time" 7/21/21 Transcript 79:11-80:1. Also, Mr. Gnat's testimony dispelled the Agency's speculation that based on incomplete available groundwater data, there may be groundwater impacts for sulfate or total dissolved solids. Mr. Gnat explained that the two wells the Agency pointed to as potentially showing groundwater impacts above Class I groundwater standards, Monitoring Wells 14 and 15, cannot be accurately compared because Monitoring Well 15 is analyzed for total metals data, whereas Monitoring Well 14 only has dissolved metals data. *Id*. at 80:19-81:4. Mr. Gnat stated, "if you want to compare a totals dataset to a dissolved dataset, you can't do that statistically with any fairness. It's not going to be representative statistically." *Id*. at 81:5-8. Mr. Gnat explained further for these constituents are not health-based standards, they are not "health-based standard and we have no down-gradient receptors. So, again, I don't see the harm in requesting the extension at this point." *Id*. at 82:2-5.

III. Completion of a Construction Permit Application by June 1, 2022 is Not Feasible.

Despite not identifying any adverse environmental or public impacts, the Agency claims MWG does not need the requested extension to submit a construction permit application deadline if the Metal Cleaning Basin is designated as a Category 5 CCR Surface Impoundment. But the Agency's objection is based upon the incorrect assertion that the Illinois CCR Rule allows six months to complete the construction permit application. Agency Rec., ¶45. Because of the public participation requirements, the deadline to complete the construction permit application is 60 days before the regulatory deadline, which is June 1, 2022, a mere two months after the operating permit application would be submitted. 7/21/2021 Tr. 66:17-24. Two months is clearly insufficient time to complete all of the reports and technical evaluations for a construction permit application. Therefore, MWG would suffer and unnecessary hardship if it is not granted this extension. Because

of the absence of environmental harm, the Board should grant MWG's request to extend the deadline to submit the construction permit application.

A. There is not Enough Time to Conduct an Alternative Source Demonstration Before Completion of a Construction Permit Application.

The deadlines to submit a construction permit application are dependent upon the closure category designation and the evaluation of whether a CCR surface impoundment is causing groundwater contamination. 35 Ill. Adm. Code 845.700(g).[2] One of the steps to make that determination is an alternative source demonstration ("ASD"), which evaluates whether there is an alternative source to the constituents in the groundwater. Without an ASD, it cannot be conclusively determined whether the CCR surface impoundment is causing groundwater contamination. The Illinois CCR Rule allows 60 days to conduct an ASD, and Illinois EPA has 30 days to review it, meaning an additional 90 days is required before it can be concluded that a CCR surface impoundment is a source. 35 Ill. Adm. Code 845.650(e).

Here, assuming that the Board grants the variance to extend the deadline to collect the groundwater data, Mr. Gnat testified that the ASD would likely be completed April 2022. Tr. 68:-5-10. If the ASD concludes that there is no alternative source, MWG only has one month to compete and finalize a draft of a construction permit application adequate to provide the public by June 2, 2022. *Id.* at 68:9-14. One month is insufficient time to prepare the groundwater modeling, closure alternatives analysis, and closure plan that would be acceptable to submit to the public for the public participation.

[2] The Agency and MWG disagree on the Illinois CCR Rule requirements for designating the closure category designation. The Agency mistakenly claims that Section 845.700(g)(2) requires an applicant to use the more conservative of the categories "if groundwater compliance is unknown." Rec., ¶52. Section 845.700(g)(2) provides no such thing. Section 845.700(g)(2) instead states that if a CCR surface impoundment "can be categorized in more than one category, the owner or operator of the CCR surface impoundment must assign the CCR surface impoundment the highest priority category." 35 Ill. Adm. Code 845.700(g)(2). However, if the groundwater compliance status is unknown, then the CCR surface impoundment cannot be categorized in any category. Here, because of the absence of groundwater data, the Metal Cleaning Basin cannot be categorized. In any case, Illinois EPA does not object to extension of the deadline to determine the category designation of the basin. Agency Rec., ¶43.

B. Completion of a Complete Construction Permit Application Within Four Months is Infeasible and Would Require Unnecessary Duplicative Work.

Even if MWG did not conduct an ASD, or begins preparation of the construction permit application concurrently with the ASD, MWG will suffer an unreasonable hardship. There will not be sufficient time to prepare the numerous reports required for a construction permit application. Also, MWG will likely have to unnecessarily duplicate the reports it submitted. 7/21/2021 Tr. p. 69:23-70:5. Preparing the evaluations and reports required by the construction permit application is an iterative process. 7/21/2021 Tr. p. 77:15-19. It builds upon the data and information developed in each report. Hence, the reports must be developed sequentially further extending the time for preparation. Plus, if there are modifications to the initial information on the underlying groundwater, then the evaluations for the construction permit applications will also likely change, requiring supplemental and likely duplicative reports.

Once the groundwater data is collected and analyzed, one of the first steps for a construction permit application is preparing a groundwater model, which is a significant undertaking. To prepare one, the modeler establishes the basics for topography of the site, develops a three-dimensional numerical representation, and develops the groundwater flow model based upon the water level data, precipitation data, and surface water data. 7/21/2021 Tr. p. 70:18-71:6. The model must be calibrated and preparing the contaminant transport attachment to the model. 7/21/2021 Tr. p. 71:7-18. Mr. Gnat estimated that it takes approximately 400 hours per site to establish a groundwater model. 7/21/2021 Tr. p. 72:6-14. The groundwater modeling is used to prepare the alternative closure analysis, because once the groundwater model is established, an owner or operator can overlay each engineering closure option into the model to predict how the engineering option will affect the groundwater over time. 7/21/2021 Tr. p. 72:20-73:-20; 75:4-11. The closure alternatives analysis evaluates three to five primary alternatives for closure, and various sub-alternatives within each, and each closure alternative must be at about a 30%

engineering design to make the analysis meaningful. 7/21/2021 Tr. p. 73:21-76:7. Preparation of the analysis takes about four to eight weeks. 7/21/2021 Tr. p. 75:12-18. Only upon completion of the alternatives closure analysis can an owner or operator prepare a closure plan, because otherwise the analysis is meaningless. 7/21/2021 Tr. p. 77:5-11. The closure plan does not need to be fully designed but it should be robust to allow for a good evaluation, and takes approximately three to four weeks to prepare. 7/21/2021 Tr. p. 76:16-77:4, 77:23-78:5.

In total, Mr. Gnat testified that it would take approximately twelve to seventeen weeks to prepare the groundwater model, alternatives closure analysis and the draft closure plan for a complete construction permit application. His estimates do not include the other elements of a construction permit application, including the construction history, a narrative description of the facility, and plans and specifications of the design, nature, function and interrelationship of each component of the facility. 35 Ill. Adm. Code 845.220(a). There is simply no reasonable way for MWG to complete all of the requisite information for the construction permit application within two months of completion of the operating permit application (from March 31, 2022 to June 1, 2022). Moreover, Mr. Gnat's estimates assumes that nothing goes wrong during development of the information. 7/21/2021 Tr. p. 78:6-9. Requiring MWG to complete the construction permit application within two months of completion of the operating permit application provides no allowance for unforeseen delays due to equipment shortages or lab delays.[3] By comparison, the other Category 5 CCR surface impoundments under the CCR Rule, have seven months (from October 31, 2021 to June 1, 2022) to prepare the application. 35 Ill. Adm. Code 845.230(d)(1), 700(g).

[3] In fact, delays caused by issues with equipment have already occurred. Mr. Gnat testified that the installation of the groundwater monitoring wells at the Metal Cleaning Basin was delayed because there were a lot of issues with materials and supplies, and it took longer than normal to get the dedicated pump from the supplier. 7/21/2021 Tr., p. 45:13-19.

The estimated time to complete the groundwater model, alternatives closure analysis and the draft closure plan for a complete construction permit application also assumes that the Agency approves the groundwater information developed for the operating permit application. If the Agency does not agree with MWG's data and statistical analysis it "reverberates through the whole process" requiring multiple supplemental submittals. 7/21/2021 Tr. p. 68:15-69:12. There is no reasonable basis to require MWG to comply with the short deadlines when there are numerous variables still present, and a brief extension would likely reduce duplicative work.

The Board has previously found that a variance is justified where a possible significant change to a permit application would require duplication of effort. In *USA Waste Services, Inc. v. Illinois EPA*, PCB 94-92, 1994 Env. LEXIS 928 (July 21, 1994), the Board granted a six-month variance for USA Waste to file an application for a significant modification because it was awaiting siting approval for an expansion of its landfill. If USA Waste was required to comply with the filing deadline for the application, it would be required to submit a second application later, which the Board found would be largely duplicative and a waste of effort. *Id*. at 8. The Board granted the variance and rejected a condition proposed by the Agency to require USA Waste to file a supplemental permit application during the term of the variance demonstrating compliance with other aspects of the regulations, finding that:

> [P]etitioner is seeking the variance precisely to avoid filing an application making this demonstration until such time as it has obtained siting approval for its proposed expansion…[t]he conditions proposed by the Agency would result in the very waste and duplication of effort that petitioner seeks to avoid.

Id. at 7.[4]

[4] The Board has similarly granted variances from permit application deadlines due to site specific circumstances that necessitated additional time. *See Atkinson Landfill Company, Inc v. Illinois EPA*, PCB No. 94-259, 1995 Ill. ENV LEXIS 28 (granting a sixteen month variance the permit application); *Waste Management of Illinois Inc. v. Illinois EPA*, 94-212 1994 Ill. ENV LEXIS 1273 (Oct. 6, 1994)(granting a six month deadline extension the permit application); *Illinois Landfill Inc. v. Illinois EPA*, PCB 94-200 1994 ENV LEXIS 1512 (Dec. 1, 1994)(granting a 12 month deadline extension the permit application); *Macon County Landfill Corp v. Illinois EPA*, PCB 94-158 1994 Ill. ENV LEXIS 993 (Aug. 11, 1994) (granting a 12 month deadline extension the permit application): *Land and Lakes*

The same logic applies here. MWG is seeking this variance authorizing a deadline extension precisely so that it can file a complete, comprehensive construction permit application that meets the requirements of public participation, and does not have to duplicate any effort. MWG has demonstrated that it is almost impossible to submit a complete and accurate permit application within mere months of submission of the operating permit application. On balance, MWG would suffer an arbitrary and unreasonable hardship if it is not granted the variance, and no harm to the environment would result by granting it. Thus, the Board should grant MWG's variance authorizing an extension of the construction permit application deadline until December 1, 2022.

IV. The Submission Requirements for the Initial Operating Permit Application Are Unclear.

Although the Agency does not object to MWG's request to extend the date for submission of the operating permit application, there is a dispute over the interpretation of the submission requirements. The Agency has not objected to MWG's requested variance to complete the groundwater data collection required by Section 845.650(b)(1)(A) by January 31, 2022. Agency Rec. ¶32. However, the Agency contends the groundwater sampling data, statistical analysis, and selection of the statistical method do not need to be included with the operating permit application, rendering MWG's request superfluous. *Id.*, ¶35.

The plain language of the CCR Rule states that the groundwater data is required to be submitted with the initial operating permit application. The operating permit application must include "a groundwater sampling and analysis program that includes selection of the statistical procedures to be used for evaluating groundwater monitoring data (see Section 845.640)." 35 Ill.

company v. Illinois EPA, PCB 96-198 1996 ENV LEXIS 609 (Sept. 5, 1996) (granting a 6 month deadline extension the permit application).

Adm. Code 845.230(d)(2)(I)(iii). Section 845.640(f)(3) states that the operating permit application must include "[d]ocumentation of the statistical method chosen" which must be one of several methods outlined in Section 845.640(g). Mr. Gnat testify that "until you know all of your background data, you don't know exactly the statistical method you're going to use" 7/21/2021 Tr. p. 56:12-14. Thus, groundwater data must be complete to make a final selection of the statistical method, and the operating permit application requires this selection. *Id*. at 57:10-13. Also, nothing in the Illinois CCR Rule instructs owners or operators of CCR surface impoundments that they do not have to submit the groundwater data if it is not available, nor provides an alternative deadline or submission requirements for the groundwater data and statistical analysis if it is not contained within the operating permit application. Moreover, during the Illinois CCR Rulemaking, the Agency never indicated that an owner or operator may not submit the information if it were unavailable. In answer to the Board's questions, the Agency accepted the Board's premise that the detailed groundwater monitoring information must be submitted with the initial operating permit application, and did not correct the Board that the information was not required if it were not available. Ex. U.

At the very least, the Agency's position on how the operating permit application requirements should be interpreted creates uncertainty, but it is MWG alone who bears the risk of non-compliance if it submits what could be construed as a "incomplete" permit application. While the Agency has indicated that it would not consider the application incomplete if MWG only includes a proposed groundwater monitoring program, MWG could be exposed to third party enforcement actions if the rule remains unclear. Accordingly, to ensure that it is in full compliance with the Illinois CCR Rule, MWG requests an extension of the deadline to submit a complete operating permit application.

V. Conclusion

MWG has met its burden under the Act and Board Regulations to demonstrate that compliance with the deadlines in the rule constitutes an arbitrary and unreasonable hardship and that there is no adverse environmental impact to public health or the environment to grant the extension of the deadlines.[5] The Board should grant MWG's Petition for Variance to authorize the following deadline extensions:

a. 35 Ill. Adm. Code 845.650(b)(1)(A): an extension until January 31, 2022 of the deadline to collect the eight independent samples from each background and downgradient well that determine the background levels.

b. 35 Ill. Adm. Code 845.230(d)(1): an extension until March 31, 2022 of the deadline to submit an initial operating permit application.

c. 35 Ill. Adm. Code 845.700(c): an extension until March 31, 2022 of the deadline to submit the category designation of the Metal Cleaning Basin's Closure Prioritization under Section 845.700(g).

d. 35 Ill. Adm. Code 845.700(g): an extension until December 1, 2022 of the deadline to submit the Construction Permit application if the Metal Cleaning Basin is designated as a Category 5 CCR surface impoundment.

Respectfully Submitted,

Midwest Generation, LLC

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[5] The Board also submitted questions to the Parties, which MWG answered during the hearing. To assist the Board in its review, MWG has attached an addendum to this brief that quotes the answer to each question from the hearing with the citation to the transcript.

APPENDIX

ILLINOIS POLLUTION CONTROL BOARD

MIDWEST GENERATION, LLC,	)	
	)	
Petitioner,	)	
	)	
v.	)	PCB 21-109
	)	(Variance)
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,	)	
	)	
	)	
Respondent.	)	

MIDWEST GENERATION, LLC'S RESPONSE TO THE BOARD'S PRE-FILED QUESTIONS FOR THE POWERTON STATION VARIANCE PETITION HEARING

Midwest Generation, LLC ("MWG") responded to the Illinois Pollution Control Board's ("Board") pre-filed questions via testimony at the July 21, 2021 hearing for the Powerton Station's Petition for Variance. MWG directs the Board to the following citations to the transcript of this proceeding for each response as follows:

1. Section 104.204(b)(1) requires the petitioner to provide the location of the facility and area affected. Midwest Generation (MWG) has provided the general location, but not an address for the Powerton Station. Please provide the address of the Powerton Station. Also, please describe the area impacted by the facility, including locations of any potable wells, surface waters and groundwater.

MWG RESPONSE TO QUESTION 1:

- Address of Powerton Station: 7/21/21 Tr., p. 12:10-13 (Testimony of D. Green).

  [MS. SNITTJER]. And the address of the Powerton Station is 13082 East Manito Road in Pekin, correct?

  A. That's correct.

- Location of Potable Wells: 7/21/21 Tr., p. 35:23-37:24 (Testimony of R. Gnat).

  [*MS. GALE]. Mr. Gnat, can you please describe the -- please describe the potable wells around the station?*

  A. On this figure, what was done by Natural Resources Technologies, which is the permit

that pulled this together, is -- is a radius of roughly 2,500 feet around where the impoundments are, which is the standard radius when looking for potable water wells in Illinois here and there are some yellow dots on this map, which -- which identify what those potable wells were. Several are outside of that radius and then there's -- there are one or two that are right basically at that 25-foot radius.

Q. And where are they located within that radius?

A. Okay. There is one that is located to the south of Manito Road. It's right at the 2,500-foot line and then there's one that is located just to the north -- I'm sorry -- to the west that's right by what looks like the substation, the ComEd substation, which is within the Powerton property.

Q. And the one to the south that's up-gradient, right?

A. Correct, groundwater flow does not go to the south from this site.

Q. And those to the west, what's in between those wells and the metal cleaning basin?

A. There is an intake channel that runs through between all of the units. The CCR units are to the south and east of the state -- of that -- or, I'm sorry, to the east of that. I'm looking at the map wrong. To the east of the intake channel and then the particular –

Q. So—

A. -- wells at the far west side there.

Q. And so by having the intake channel in between, what does that mean in relation to the metal cleaning basin?

A. The part of the flow component that is to the west is in the very shallow groundwater that's within a more silty clay zone and it flows and it will be directly discharging to that intake channel, which then goes through the processing facility.

Q. So are those potable wells impacted by the metal cleaning basin or any of the other CCR surface impoundments?

A. No, I do not believe so. No.

- Nearby Surface Waters: 7/21/21 Tr., p. 38:1-39:2 (Testimony of R. Gnat).

[MS. GALE]. Okay. Mr. Gnat, what surface waters are near the Powerton station?

A. You've got the Illinois River to the north and then Powerton Lake to the west, northwest.

Q. Okay. And how, if at all, would those surface waters be impacted by the metal cleaning basin?

A. Well, Powerton Lake should not be impacted. It's on the other side, again, of that intake channel. Now, the groundwater flow within the lower unit there in that more sandy gravel unit is to the north and there's some diversity a little bit to the northeast, a little bit to the northwest, but it is flowing towards the Illinois River.

However, we do have three wells which are north of what's called the former ash basin wells 2, 3 and 4, which are the closest to the Illinois River and those generally do not have any exceedances of any of the values that we've looked at.

Q. And the Powerton -- excuse me. Powerton's NPDES permit discharges to the Powerton Lake, correct?

A. Yes.

- Groundwater Flow/Conditions: 7/21/21 Tr., p. 39:5- 40:12 (Testimony of R. Gnat).

[MS. GALE]. Can you please describe the groundwater conditions at Powerton because it's a bit complex?

A. Sure. There are really two units that we've identified. The first is a shallower unit that's -- it's really a discontinuance blend of a more silty -- silty clay material and that's really located within the area of where the metal cleaning basin is and then it moves to the east to just past the surge basin where it starts to pitch out and further to the east. That unit is no longer there.

So what we have found are the wells that are actually screened within first groundwater in that area, that first groundwater appears within that unit. Where that unit doesn't exist, groundwater appears a little bit deeper and it's within that sand and gravel unit. So when we look at the flow directions, we're looking at the wells that are screened within that shallower silty clay unit and then separately the wells that are within that sand and gravel unit.

The two are hydraulically connected, but there is a clear difference on the water levels. So when we look at the silty clay unit, groundwater flow is consistently to the west right -- right to the intake channel there and when we look at the groundwater flow within that deeper sand and gravel unit it is in a northwesterly direction with some diversion going to -- a little bit to the northeast and a little bit to the northwest.

2. Section 104.204(b)(2) requires the location of the nearest air monitoring station. The Agency notes that this requirement is not applicable in this matter. Please comment on whether location of air monitoring station has any bearing on measuring the impact of fugitive dust emissions from the facility.

MWG RESPONSE TO QUESTION 2: 7/21/21 Tr., p. 27:12-19, 27:24-28:6 (Testimony of

D. Green).

[MS. SNITTJER]. And according to [Petitioner's Hearing Exhibit S (Illinois Ambient Air Monitoring Network Plan for 2022)], where is the closest air monitoring station to Powerton?

A. It's in Peoria on Jefferson Street.

Q. And this is a PM 2.5 monitor, correct?

A. Yes. According to the document, yes.

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Q. And can the Jefferson Street air monitoring station detect fugitive dust from the Powerton property?

A. In my opinion, no. Because we do not let fugitive dust exit the property boundaries. We maintain it and keep it per our fugitive dust plan.

3. Section 104.204(b)(6) requires the petitioner to provide information concerning the materials processed in facility for which the variance is sought. MWG states that the metals cleaning basin (MCB) serves as a temporary laydown area for dry ash cleaned out during maintenance activities and is also occasionally used to hold process water when the boilers are washed. Pet. at 8. Please provide the annual amounts of dry ash and process water stored annually in the MCB.

4. Section 104.204(b)(8) requires the nature and amount of emissions, discharges, or releases of the constituent in question currently generated by the petitioner's activity. Please indicate the annual quantity of process water discharged from the MCB, as well as the amount of dry ash dredged annually from the MCB

MWG RESPONSE TO QUESTIONS 3 AND 4:

- Process Water: 7/21/21 Tr., p. 16:9-17 (Testimony of D. Green).

[MS. SNITTJER]. And approximately how much boiler wash water circulates in the metal cleaning basin during this boiler washing process?

A. We will put about a million gallons per day and typically it depends on how much we run. We will wash for three days to seven days.

Q. And you said this occurs annually, correct?

A. Annually, yes.

- Dry Ash: 7/21/21 Tr., p. 18:24-19:5; 19:21-20:11; 29:18-23 (Testimony of D. Green).

[*MS. SNITTJER]. And how much fly ash is placed in the basin during these maintenance events?*

A. When we clean out our silo, it's roughly five truckload -- dump truckloads of fly ash that gets put in -- placed on the ramp going down into the basin.

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Q. And so you said four to five truckloads, is that correct?

A. Roughly, yes.

Q. And to give some context, about how much is that in relative to total facility operations?

A. It's probably less than a percent. It's a very, very small, de minimus amount.

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(Agency Cross-Examination of D. Green)

[MS. ZEIVEL]. Can you expound on the size of the dump trucks, what maybe the tonnage is or are they single or double axel or what are we talking about? What are you referring to?

A. Once we haul it out, it's basically a semi-dump truck.

5. On page 6, IEPA states, "it would not be uncommon for gas side boiler wash waters received by the Metal Cleaning Basin to contain fly ash." Please comment on whether MWG has detected fly ash in the process waters managed in the MCB.

MWG RESPONSE TO QUESTION 5: 7/21/21 Tr., p. 15:24-16:5; 17:13-23 (Testimony of D. Green).

[MS. SNITTJER]. And has Midwest Generation ever detected any fly ash in the boiler wash water?

A. To my understanding, we have not tested or have any tests where we have detected fly ash in the boiler wash water as bi-products of combustion.

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MR. RAO: Regarding Question 5, Mr. Green, you mentioned that fly ash was not

detected in the processed water that was received in the metal cleaning basin?

THE WITNESS: Correct.

MR. RAO: Have you tested the water or is it just based on, you know –

THE WITNESS: We have not done any test on the metal cleaning basin water to determine whether there is fly ash involved in it or not.

6. In response to IEPA's recommendation that the Board deny the requested extension of the deadline to file the construction permit, MWG states, "[n]o harm will be caused by granting MWG the same time other Category 5 CCR surface impoundments are granted to prepare a complete and accurate construction permit application." MWG Resp. at 2.

   a. Please clarify whether causation of "harm" in the above statement refers to any adverse environmental impact due to extension of the deadline to submit construction permit application by four months.

MWG RESPONSE TO QUESTION 6A: 7/21/21 Tr., p. 79:11-80:1 (Testimony of R. Gnat).

[MS. GALE]. So, Mr. Gnat, I'll ask you to please answer that question, what – whether causation of harm refers to any adverse impact, do you think there will be harm and what harm will be involved?

A. When I think -- when I read that question or saw that question, you know, first thing I think is there any imminent threat to human health and the environment that would cause if we extended this deadline and quite honestly these impoundments are on property, controlled access, they're no receptors down-gradient. I do not see any imminent threat to human health or the environment if we have an extension to a deadline here. We're not asking for a huge amount of time.

   b. IEPA's recommendation indicates exceedances of Class I groundwater quality standards for sulfate and TDS in certain monitoring wells at the facility. Rec. at 14. Please comment on any implications of extending the deadline for submitting construction permit application on mitigating potential groundwater impacts.

MWG RESPONSE TO QUESTION 6B: 7/21/21 Tr., p. 80:16-82:5 (Testimony of R. Gnat).

[*MS. GALE]. Please comment on the implications of extending the deadline for submitting a construction permit application on mitigating potential groundwater impacts. And, I believe, Mr. Gnat, you looked at those wells that the Agency referred to and what is your opinion about that?*

A. Well, I believe there were two specific parameters that were identified.

Q. TDS and sulfate?

A. TDS and sulfate by Illinois EPA. So Well 15 that is a down-gradient well for the ash but it's also an up-gradient well for the metals cleaning basin. In that it's part of the ash surge basin, we do have total metals data, the federal rule Appendix 3, Appendix 4, which is he same as 845.600. So we do have those data. Well 14 doesn't have that data. We're just starting to develop that background dataset for Well 14. So if you want to compare a totals dataset to a dissolved dataset, you can't do that statistically with any fairness. It's not going to be representative statistically, but even taking a look at it the distributions that we're seeing and what we're seeing in down-gradient Well 14 there are some exceedances of the Class 1 standard, but they're also exceedances in the up-gradient well.

So the question is the groundwater protection standard is going to end up being the higher of either the statistical background, which would be calculated off of Well 15 or the Class 1 drinking water standard. And just quickly looking at the numbers that -- that we have available, I don't think a determination can be made where we're going to end up with that.

Especially considering the two ones that were suggested, the sulfate and total dissolved solids, I believe those are not health-based standards. Those are secondary drinking water standards that affect palpability, smell of the water, whatnot. It's not a health-based standard and we have no down-gradient receptors. So, again, I don't see the harm of requesting the extension at this point.

7. IEPA states that MWG "could make informed conclusions to conservatively categorize the Metal Cleaning Basin as Category 5 based on existing data." IEPA Rec. at 8. In response, MWG states that the existing data supports either a Category 5 or Category 7 designation. MWG Rep. at 4.

   a. If the MCB is initially designated as Category 5 as recommended by IEPA, please comment on whether the CCR rules under Part 845 would allow MWG to redesignate the MCB as Category 7 if new data supports such redesignation at later date.

MWG RESPONSE TO QUESTION 7A: 7/21/21 Tr., p. 104:17-19 (Statement of K. Gale).

[MS. GALE]. …the rule may allow Midwest Gen to redesignate the metal cleaning basin as a Category 7 if new data supports that..

   b. If so, comment on any adverse implications of such redesignation would have on the closure of the MCB as well as on MWG.

MWG RESPONSE TO QUESTION 7B: 7/21/21 Tr., p. 104:17-107:9 (Statement of K.

Gale).

[MS. GALE]…[I]t is unreasonable to require Midwest Gen to make a designation of Category 5 before we have any CCR groundwater data.

A designation of Category 5 now would have significant adverse effect on Midwest Gen without any benefit to the environment and would not hasten the closure or retrofitting of the metal cleaning basin.

As we heard Mr. Gnat testify, Midwest Generation is currently preparing five operating permit applications for nine CCR surface impoundments for submittal by October 31, 2021. At the same time, Midwest Generation is also preparing construction permit applications for four surface impoundments that are Category 3 which means they're in EJ areas, excuse me, environmental justice areas so that they're ready at the latest by December 1, 2021.

We heard from Mr. Gnat that preparing these construction permit applications is a large endeavor and has a domino effect. I mean, the fact that this exercise builds upon itself. You first have to develop the groundwater data, including establishing the background data and the groundwater protection standards.

Based upon that, you create the groundwater model which relies upon that data and you then also have to conduct an alternatives closures analysis which includes an evaluation of best closure method and that valuation is based in part upon the groundwater monitoring data and the modeling which demonstrates what closure analysis would be best to get to the groundwater protection standards as soon as possible.

Finally, you have to prepare a closure plan and a post closure plan, which depends upon the results of the alternatives analysis which depends upon the modeling. If the metal cleaning basin is designated as a Category 5 now, before we have that information Midwest Gen will have to begin working on the construction permit application now with incomplete information, meaning Midwest Generation will likely create data and information that will have to be revised later and one change, as Mr. Gnat said, one change in the groundwater evaluation will affect the model, which affects the alternatives source analysis and can ultimately affect the closure plan.

Ultimately, Midwest Gen could be doing work that did not need to be done and could duplicate work later on. All -- again, getting to really what we're asking for here, Midwest Generation is asking for relief -- is not asking for any relief from any technical requirements or any technical evaluations as Midwest Generation is already working at 110 percent to comply with the various requirements of the CCR rule for all of its CCR surface impoundments.

All we're asking for here is a little more time and Midwest Gen contends the

better way is to allow the data to be developed so it can submit an accurate category designation. That's our answer to No. 7.

8. On page 11, IEPA states that it "considers Petitioner's requested time extension to submit the initial operating permit application to be unnecessary based on its interpretation of 35 Ill. Adm. Code §845.230(d)(1) and §845.230(d)(2)." In response, MWG disagrees noting "Section 845.230(d)(2)(I)(iii) requires a groundwater sampling and analysis program that includes selection of the statistical procedures for evaluating the groundwater monitoring data under Section 845.640." MWG Resp. at 3.

   a. Please clarify whether statistical procedures for evaluating groundwater data is selected only after data collection is completed.

MWG RESPONSE TO QUESTION 8A: 7/21/21 Tr., p. 53:15-55:15; 56:12-57:13 (Testimony of R. Gnat).

[MS. GALE]. Can the statistical analysis be done before the eight rounds of [groundwater monitoring] data are collected?

A. No, it can't. You need a full round of -- at the minimum and -- and the requirement is a round of eight -- eight rounds of samples and to start any type of statistical calculation short of that doesn't fulfill the purpose or the need or the requirement for that statistical evaluation and one additional round can affect those calculations and reverberate all the way through. Absolutely.

Q. Right. Because you're doing -- you're evaluating each well for each parameter. What – can you describe a little bit what that means when you do that for each parameter, what you -- at each well?

A. So let's just take for calculating the up-gradient background statistic. The first thing we look at is whether or not the distributions are normal or not normal and so that's one whole set of calculations, but we usually -- whenever possible we try and have -- unless it's one very small focused unit, we usually try and have at least two up-gradient wells identified within any program and the purpose for that is, yeah, we've got eight rounds of data that are required, but for background statistics the more data you have the better. So we usually try to have more than one up-gradient point and that way we look at each up-gradient point separately, but then we look at them together for each parameter.

So say Wells 1 and 2 are up-gradient wells and we're looking at boron and boron in Well 1 behaves -- it's a normal distribution, normal distribution in Well 2. Then we combine the two datasets for boron and we compare them actually, not combine them, but compare them and if there is no statistically significant variation between those two datasets we can pull the two and now use a background dataset of 16 points rather than eight points, a much better statistical assessment and in some cases you'll find that there is some spatial variation between the two up-gradient points and you can't combine them. So then you have to decide out of those two points which one am I going to use for my background calculation and we usually will err on the conservative side.

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(Responding to Mr. Rao)

THE WITNESS: …Until you have all of your background data, you don't know exactly the statistical method you're going to use. However, we are developing as part of the permit application and also as part of the federal rule we developed a statistical approach. This is how we're going to look at the data and make our decisions as to which statistical approaches we may or may not use and so we've got that plan, which -- which kind of gives this is the guide of how we're going to approach the study and then once you get the data you use the guide and determine which path you're going to go down through statistically to do your evaluations for that particular well or parameter and it goes down to parameter as well.

MR. RAO: So there can be changes after you collect the data -- every year?

THE WITNESS: Correct.

MR. RAO: -- and what you decide

THE WITNESS: Correct.

MS. GALE: So I guess I'll ask it a different way. The data really informs the ultimate choice, correct?

THE WITNESS: Yes.

b. Please comment on whether the statistical procedures could be chosen on the basis of existing groundwater monitoring data.

MWG RESPONSE TO QUESTION 8B: 7/21/21 Tr., p. 56:12-57:13; 58:24-59:7 (Testimony of R. Gnat).

[MS. GALE]. So today could you use the well data from 14 to even start a statistical analysis?

A. No. Even though the dissolved -- or the dissolved metals and the total metals from various previous hearings and so on, it was determined that those numbers are pretty close, but they're not the same and not the same is critical in statistical evaluations.

c. Please provide citation to IEPA's CCR rulemaking testimony stating that the groundwater monitoring data and statistical procedures must be submitted with the operating permit.

MWG RESPONSE TO QUESTION 8C: See Petitioner's Hearing Exhibit U.