BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	
	)	
PETITION OF MIDWEST GENERATION, LLC,	)	AS 21-1
FOR AN ADJUSTED STANDARD FROM	)	
35 ILL. ADM. CODE 854.740(a) AND	)	
FINDING OF INAPPLICABILITY OF	)	
35 ILL. ADM. CODE,		

REPORT OF THE PROCEEDINGS held in the above-entitled cause before Hearing Officer BRADLEY P. HALLORAN, called by the Illinois Pollution Control Board, taken by Raelene Stamm, CSR, for the State of Illinois, Will County Office Building, 302 North Chicago, Street, 2nd Floor, Joliet, Illinois, on the 29th day of June, 2022, commencing at the hour of 9:00 a.m.

Reported By: Raelene Stamm, CSR

License No.: 084-004445

APPEARANCES:

MR. BRADLEY P. HALLORAN, Hearing Officer
MR. ANAND RAO, Board Member
MS. ESSENCE BROWN, Board Member
MS. VANESSA HORTON, Staff Attorney

NIJMAN FRANZETTI, LLP
BY: MS. KRISTIN LAUGHRIDGE GALE
MS. SUSAN M. FRANZETTI
10 South LaSalle Street
Suite 3600
Chicago, Illinois 60603
On behalf of Midwest Generation, LLC;

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
BY: MS. STEFANIE N. DIERS
MS. SARA TERRANOVA
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794
On behalf of the IEPA.

I N D E X

E X H I B I T S

HEARING OFFICER HALLORAN: Good morning, everybody. Today is June 29, 2022. We're continuing this hearing, Adjusted Standard 21-1, from yesterday. And Miss Gale has her, I believe, final witness up, Mr. Dehlin. She's continuing her cross of him or, excuse me, her direct of him, but first we want to take care of some housekeeping matters.

Miss Gale?

MS. GALE: Yes. There are a couple exhibits that I need to label. When Mr. Gnat was testifying, he talked about the second quarter 2021 CCR rule groundwater results which were Tab 2 in the binder in front of you. Those will be Exhibit 32.

Then Exhibit 33 are the third quarter 2021 compliance commitment agreement groundwater results discussed by Mr. Gnat.

And Exhibit 34 is Mr. Maxwell's CV.

Exhibit 35 is Tom Dehlin's CV.

HEARING OFFICER HALLORAN: I'm sorry?

MS. GALE: Tom Dehlin's CV.

HEARING OFFICER HALLORAN: All right.

Mr. Dehlin, you're still under oath, but

just to confirm, the court reporter will swear you in.

(WHEREUPON, the witness was duly sworn.)

THOMAS DEHLIN,

called as a witness herein, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MS. GALE:

Q. Good morning.

A. Good morning.

Q. I'd like to turn in your binder to Exhibit D which is your December 2, 2021, report, and it's Exhibit D of the Illinois EPA's recommendation.

Generally speaking, what did this report address?

A. This report addressed the -- whether material that was on the access ramp in Pond 2, if that surfacing material was reused, is fill material or placed under the HDPE geomembrane liner when the pond was relined in 2008.

Q. Okay. And what did you conclude?

What did you find?

A. I concluded that they did not reuse that material.

Q. By they, you mean who?

A. Brieser Construction, the contractor that was responsible for relining the pond.

Q. What did this use instead?

A. They used new surfacing material. I believe it was that course aggregate material that I had discussed yesterday and then sand underneath that.

Q. And the course aggregate came from off site, right?

A. Correct.

Q. And what -- did they have to deal with the Poz-O-Pac as well?

A. Yes. They would have had to -- when removing that surfacing material -- cause that surface -- the original surfacing material was placed on the original Poz-O-Pac liner, they would have encountered the Poz-O-Pac, which they did.

Q. And what did they do with the Poz-O-Pac?

A. They left it in place.

Q. Great. Thank you very much.

Next I want to turn to Exhibit 2 of your

report. I'm sorry, Exhibit 2 in your binder. Excuse me. It would be Exhibit 2 of Midwest Gen's original petition.

A. Okay.

Q. This is the affidavit of Mr. Dave Nielsen, right?

A. Correct.

Q. Who is he?

A. Dave Nielsen is a colleague of mine. I worked with him in various CCR applications since I started working in August of 2015. So personally I find him to be a mentor of mine. He's been with Sargent and Lundy since 2008 and has over 30 years of experience in geotechnical applications.

Q. And did you review this affidavit in support of your testimony today?

A. I did.

Q. Did you assist in the preparation of this affidavit?

A. I did.

Q. Okay. And turn to Exhibit 3 which is the next tab.

A. Okay.

Q. What's -- this is the expert report of

Dave Nielsen, right?

A. Correct.

Q. Did you review this report in support of your testimony today?

A. I did.

Q. Did you also assist in the preparation of this report?

A. I did.

Q. Okay. So, Mr. Dehlin, we now have the subgrade prepared in Pond 2.

What was installed in Pond 2?

A. After the subgrade was prepared, the first thing that was placed was a nonwoven geotextile fabric. The lower fabric, it was 16 ounces per square yard, and that was meant to provide additional cushion or protection for the HDPE geomembrane liner that was then installed over that. That liner was 60 mill, thick HDPE, which is industry standard, white, textured liner.

And then over that liner on the floor of the pond was installed a 12-ounce per square yard nonwoven geotextile fabric that was meant to provide protection for the granular protective layers that were placed over that so that those

materials would not pose a risk to the HDPE geomembrane liner. So above that 12-ounce per square yard nonwoven was 12 inches of sand material and then 6 inches of course aggregate material, both of which were obtained off site.

Q. So, Mr. Dehlin, what are geomembrane liners like HDPE?

A. They're relatively, I would say, effectively impermeable plastic liners used in a variety of waste containment applications. That impermeability is the primary reason they're used in waste containment to provide separation from the waste that's being stored, whether that be on a permanent or temporary basis, to avoid it from leaking into the groundwater.

Q. So you said a variety of waste containment. Can you give me some examples of where you used other than --

A. Sure. Municipal solid waste landfills, hazardous landfills, other industrial landfills including CCR landfills. They've also been used in hazardous waste surface impoundments, so a variety of waste applications.

Q. Mr. Dehlin, you have in front of you

Exhibit A, Miss Hunt's affidavit. Will you turn to Paragraph 29, please?

A. Okay.

Q. Okay. And in Paragraph 29 she states, HDPE liners that overlie soils with gravel are likely to sustain perforations due to overburden stress, and she cites to recommendation, Exhibit I.

Mr. Dehlin, did you review Agency's Exhibit I?

A. I did.

Q. What is it?

A. It is a study that shows the effects of HDPE liners being in contact with gravely soils and the likelihood that they could sustain perforations or even be punctured.

Q. Is that study applicable to how the HDPE liner was installed at Pond 2?

A. I do not think it is because of the presence of the two nonwoven geotextile fabrics that I discussed earlier.

Q. And those two geotextile fabrics, I guess in a laymen's terms, they sandwich the HDPE liner, right?

A. Yes.

Q. Okay. And do you -- did you review any studies to support that conclusion?

A. I did. There's a textbook that I personally use when designing geosynthetics. It's called, Designing With Geosynthetics. It's by Dr. Robert Corner. He founded the geosynthetic institute. Their specifications out of the Geosynthetic Research Institute, which is part of that organization, is very commonly used when specifying geomembrane materials. So I find his textbook to be useful when looking at different applications of geosynthetics.

Q. And that study was attached to your March 2022 report as Attachment 12, right?

A. Yes. That's correct.

Q. So based upon that study and the presence of geotextile on both sides of the HDPE liner in Pond 2, what is your opinion of the condition of the HDPE liner in Pond 2?

A. I believe it's highly unlikely that the HDPE liner in Pond 2 has suffered perforations significant enough to compromise the integrity based on this figure that's shown in Attachment 12. If you look at the figure, the HDPE thickness we're

looking at here is 1.5 millimeters. That's comparable to 60 mill HDPE. And you'll note that by providing geotextile on both sides, you're getting about twice as much protection as if the HDPE was just left alone in an application like this.

Q. Great.

Can you turn to Miss Hunt's affidavit and look at Paragraph 30, please?

A. Yes.

Q. Okay. Please read it to yourself, and then I will ask you some questions about it.

A. Okay.

Q. So, generally speaking, here she's stating that exposure to the elements can cause wear and tear on an HDPE liner.

What is your response to that?

A. While that is true and known, Pond 2, for the most part, that liner was not exposed to UV degradation. The pond was generally full outside of the times where they would excavate material from it to recover that storage capacity and then place it back into use. But for the most part, the water level was about 2 feet lower than

the crest elevation throughout the operation of the pond.

So other than that 2 feet that would have been exposed for maintaining freeboard, so sufficient height from the operating water level to the crest elevation, the rest of the liner would not have had direct exposure to sunlight.

Q. About the liner in Pond 2, what color is it?

A. It is white.

Q. Is that also important in your analysis?

A. It is important.

Q. Can you tell me why?

A. Yes. In general I think we understand that black attracts more heat than white does. When you go outside on a really hot day, you want to wear lighter colors so you don't overheat. Similar application applies when it comes to geomembrane liners. They're going to remain cooler. They're not going to attract as much UV, and therefore, their degradation rate, I'll refer to it, under UV is much slower than it is for a black liner. And the same has actually been found in a study that I attached in my March 2022 letter.

Let me find that attachment.

But that study also found the same concept was applicable when looking at textured liners versus smooth liners. Not as much of a decrease in degradation rate, but still a notable decrease. And given that the Pond 2 liner at -- or the Pond 2 liner is white and textured, it's not going to have the same degradation rate under UV as a black smooth geomembrane liner would.

Q. Are you looking to Attachment 8 of your March report and Attachment 9?

A. Yes. Specifically Attachment 9 is what I was looking for here. I apologize, Attachment 10 as well.

Q. Attachment 10?

A. Yes.

Q. And those are the two studies that you're relying upon in your analysis?

A. Yes.

Q. So based upon that information in those studies, in your opinion is the HDPE liner in Pond 2 compromised by either punctures or UV damage?

A. No.

Q. I think you also analyzed the life span of an HDPE liner, correct?

A. Yes.

Q. And that was based upon a geosynthetic white paper?

A. Yes. That's correct.

Q. Is that Attachment 8? Oh, no. That's Attachment 7.

A. Yes. That's correct.

Q. So what was the minimum additional life span? I think you calculated minimum additional life span for Pond 2 at Joliet 29?

A. Yes. I forget the exact number, so let me go back to my report so I can get the exact amount of years. So per this white paper, a HDPE geomembrane that is black conforming to GRI's, Geosynthetic Research Institute's, GM13 standard specification, which is the specification that was used to specify the geomembrane material installed at Pond 2, is estimated to have a life span greater than 36 years.

Q. You said it was black, though, right?

A. Yes.

Q. So here we have a white HDPE liner?

A. Correct.

Q. So based upon it being white compared to black, what do you think?

A. I think this 36-year estimate is very conservative based on the studies that have been done showing the benefits of having a white liner as opposed to a black liner when looking at UV degradation.

Q. Let's turn to Miss Hunt's affidavit, Paragraph 32.

A. Okay.

Q. So here she says, visual inspections do not provide adequate verification of competence where the synthetic liner is the only barrier between the water within the impoundment and contaminated subsoils and groundwater.

Mr. Dehlin, do visual inspections provide adequate verification of competence?

A. I do believe they provide adequate verification of competence when it comes to the geomembrane liner. These liner materials when they're manufactured are tested by the manufacturers to show or to demonstrate that they meet the various mechanical property requirements

and physical property requirements that are originally specified.

And so when these are being delivered and installed, not only are the rolls when they're being delivered to the site being visually inspected to make sure there's no damage; but as the liners are being installed and unrolled and placed in panels, there's constant visual inspection to ensure that these aren't damaged.

And I believe a similar process when you're excavating material off of it and walking it down very thoroughly, that you would be able to find rips, tears, things of that nature after the material's been removed prior to it being repurposed for, in this case, a low volume waste pond.

Q. Mr. Dehlin, in your opinion other than visual inspections, do any sort of sampling and the wipe test I guess we will be discussing later, does any other analysis need to be done on the Pond 2 HDPE liner to confirm that it's competent?

A. No, no. I do not think so.

Q. So I'm sorry for skipping around. I lost track, but let's turn back to Exhibit 3,

Mr. Nielson's report.

A. Okay.

Q. So what was the purpose of this report?

A. The purpose of this report was to demonstrate that it is possible to reuse polyethylene liners, in this case, a high density polyethylene liner, that was previously used for lining a CCR surface impoundment to be used for a low volume waste pond.

Q. And what's a low volume waste pond?

A. A low volume waste pond, as the name suggests, stores low volume waste. Low volume waste can be a variety of different process waste waters for a power plant. One is stormwater which was referenced in yesterday's testimony as the primary purpose this would be reused for the RO system. Wash was also referenced and other variety of things like cooling tower blow down is another one.

Q. So and this is only because I needed this explained to me, so perhaps others do.

When it's low volume waste pond, it doesn't mean low water volume; it means low waste volume, correct?

A. Correct.

Q. Yeah. Just in case -- that confused me.

And you and Mr. Nielsen conclude that the geomembrane liner can be decontaminated. What's your basis for that conclusion?

A. So we determined that it could be decontaminated because we haven't found much evidence that HDPE liners -- I should say we haven't found any evidence that HDPE liners could be contaminated from the CCR constituents that they have in this case been holding for would have been from '08 to 2019, so about 11 years.

Q. Actually, I want -- I think this is a good opportunity for a Board question.

A. Yes.

Q. It's Board Question Number 17. I'll read it into the record.

On Page 4 you state, my research has not found any evidence that geomembrane liners such as HDPE become contaminated with waste products that are present in CCR. Question 17A, please elaborate on the research you conducted to investigate the potential contamination of geomembrane liners like HDPE line -- like the HDPE liner in Pond 2.

A. So when preparing the expert testimony, we relied on the digital library that's available on the American Society of Civil Engineers website. ASCE is an organization that civil engineers can join, and like most professional organizations, it is used for collaborating, sharing ideas and of course networking. The ASCE library has a lot of publications, research papers in all different areas of civil engineering.

So we went into this database and searched a couple key phrases that we were looking to see where there's either been decontamination of HDPE geomembrane by heavy metals in CCR. So by heavy metals referring to arsenic, lead, the ones that we test for in groundwater monitoring applications. And we also looked at reuse of polyethylene liners. Those were the two broad searches that we did.

It returned, I think, something over several hundred, several hundred papers. And, fortunately, the way that the library is set up, you can see the title of the paper in an abstract. So we scanned through those and at that time did not find anything that looked -- did not find anything that would have provided evidence that

HDPE geomembrane liners would become contaminated with the heavy metals found in CCR applications.

Q. Okay. So Question 17B, submit into the record relevant studies you found regarding contamination of geomembranes.

A. Yes. So since then, and this is the couple studies that I would like to introduce into the record that aren't necessarily with respect to the contamination of geomembranes, but how HDPE geomembrane is very resistant to the chemical constituents that are found in CCR and how they're unlikely to permeate into the geomembrane liner thus contaminating the liner.

Q. So why don't you give me an opportunity to hand these out?

A. Sure.

Q. So, Mr. Dehlin, let's start talking about first Exhibit 36 which at the top has fungi?

A. Yes. So Exhibit 36 is another excerpt from the textbook that I referenced earlier, Dr. Corner's Designing With Geosynthetics. This is from Chapter 5, Designing With Geomembranes. We're not going to discuss the fungi portion of it at the top of Page 460 here, but we will start with the

subtitle, Chemical. This is looking at the chemical resistance properties of various geomembranes. Specifically we're gonna look at Table 5.8, which is titled, General Chemical Resistance Guidelines of Some Commonly Used Geomembranes.

So in addition to HDPE, there's three other geomembrane types listed here, but we'll focus on the HDPE. I'm gonna read the paragraph above the table which provides context for what this table shows. The chemical resistance of a geomembrane, vis-a-vis the substance, it is meant to contain is always important and often it is the foremost aspect of the design process. For example, in domestic waste or hazardous waste containment, the plum will interface directly with the geomembrane. Thus the geomembrane's resistance must be assured for the life of the facility. This situation has long been recognized, and resin producers and manufacturers have evaluated many situations. This has resulted in various chemical resistance charts such as Table 5.8.

And then when you look at Table 5.8 for geomembrane type under HDPE, looking at two

different operating conditions, 38 degrees Celsius and 70 degrees Celsius, you will see there are various checkmarks for different chemicals that are evaluated on the left-hand side of the table. The checkmarks per the footnote at the end of the table say -- represents generally good resistance. When you look at heavy metals, you see that indeed HDPE geomembrane has generally good resistance.

Q. All right.

A. The other piece of this that I would like to look at here is Page 463 and Page 464. So Page 463 at the top shows Figure 513. The figure is titled, Immersion Behavior of HDPE Samples to Landfill Leachate at 50 Degrees Celsius Up to 120 Days. So this sample of HDPE geomembrane liner was immersed in landfill leachate for 120 days, and they tracked the change in properties --

Q. Okay.

A. -- at various points, so 30 days, 60 days, 90 days, 120 days.

The top graph in the figure shows changes in physical properties. The bottom graph in the figure shows changes in mechanical properties. You'll notice there's not a distinct trend, and

that's notable. As Dr. Corner states, starting on Page 462, and I'll read this into the record.

The curves presented are the type often seen in that changes in the physical properties are significantly less than the changes in mechanical properties, and no consistent trend is established, either a uniform increase or decrease.

He then continues, if the geomembrane is reactive to the leachate, we expect uniform behavioral changes, and the changes at the higher temperature to be greater than those at the lower temperature. With no discernible trend to indicate a reaction and hence degradation of the geomembrane, it may be concluded that the scatter results from inherent variation in the materials and the test methods themselves.

And then finally I just want to conclude with -- at the top paragraph of Page 464. While there are no established rules on allowable variation from the original test properties, it is clear that polyethylene will be more resistant to more -- to most organic solvents and aggressive chemicals than will other common geomembrane polymers. Furthermore, the higher the density, the

better the chemical resistance. Thus, high density polyethylene HDPE geomembranes are the material of choice for most landfill liners.

Q. Okay. So that's an excerpt from that textbook you talk about, right?

A. Yes.

Q. And then you have Exhibit 37?

A. Yes. So Exhibit 37 is a paper that we found that was published in Geotextiles and Geomembranes, Volume 19 in 2001, Pages 329 through 357 of that publication. The title of this paper is, Migration of Dilute Aqueous Organic Pollutants Through HDPE Geomembranes. So the previous exhibit that we just reviewed gives, I think, some good foundational background of why HDPE is most commonly used in landfills and surface impoundments through a variety of waste applications. It's superior chemical resistance to a variety of different waste constituents.

This paper while it looked at aqueous organic pollutants through HDPE geomembranes, in here we're concerned with heavy metals, inorganics. It does provide some good background information on testing that has been done to the date of the

publication of this paper with respect to the permeation or the, I guess, infiltration of heavy metals into a geomembrane liner.

Specifically, if you could please flip to Page 332 of this report, the top of that page is Section 2.2, Factors Affecting Contaminant Migration Through Geomembrane, and I'm going to read. I apologize. This is a lengthy paragraph, but I would like to read it into the record because I think it demonstrates what we're looking at here in Pond 2 with respect to heavy metals being able to permeate into the geomembrane.

Q. Which paragraph?

A. The first paragraph under Section 2.2 that starts, although the well-known principle.

Although the well-known principle solubility discussed in terms of polarity, like dissolves like, generally holds for polymers as well. Its application to the diffusion and permeation parameters are more complex due to the kinetic nature of the transport process. However, it has been shown that in most polymer penetrant systems like a geomembrane, both diffusion and permeation coefficients exhibit a general increase

with similarities between components.

So what the authors are saying here is the -- an HDPE geomembrane is going to be most susceptible to chemicals permeating through it and contaminating it if it has a similar composition as the HDPE geomembranes. This is -- generally hydrocarbons are primary contaminate of concern when looking at degradation of HDPE.

Q. And is that because -- why is that?

A. It --

Q. Why --

A. It's the base material. So the HDPE resin is made from petroleum products. So hydrocarbons are alike, so hence the reason that they're the constituent concern when looking at HDPE whether it's applicable. And you have to evaluate whether it can withstand hydrocarbon penetration for those specific types of applications, but that's not applicable for Pond 2 here.

So they continue later in the paragraph. This has been confirmed by Row, et al., 1996, which studied diffusion of organic pollutants through HDPE geomembranes and observed that some organic compounds have migrated at much lower rates than

the chlorinated solvents examined.

And then the final sentence here, only negligible penetration of the heavy metal ions, in which here they note cadmium, lead, zinc, from concentrated acid solutions was found. And he references a study by Holzner in August 1995. After four years of testing, so that HDPE geomembranes may be seen as virtually ideal barriers for heavy metals.

So based on this conclusion, the heavy metals that are present CCR are expected to have a negligible penetration into the HDPE geomembrane liner at Pond 2. Therefore, I do not believe outside of decontaminating the surface, removing the CCR material, washing it down, there's a concern of heavy metals penetrating into the geomembrane liner and thereby contaminating it.

Q. I want to put a finer point on it. That last sentence, they make that conclusion, the negligible penetration from concentrated acid solutions when concentrated acid solutions were found?

A. Correct.

Q. Is CCR concentrated acid solution?

A. No, it is not.

Q. Okay. So based upon that, what is the likelihood in a nonacidic situation for a metal -- heavy metals to penetrate the HDPE?

A. So this found negligible penetration from concentrated acid solutions. So in a nonconcentrated acid solution like CCR, less than negligible is the best way I can answer that.

Q. Thank you.

Mr. Dehlin, we talked about your research, and your research has -- or in your experience, has a geomembrane been successfully decontaminated and reused?

A. We haven't explicitly dealt with the decontamination of a pond that was previously lined with geomembrane and CCR applications. We have been involved in several projects where CCR ponds were closed by removal or the ashes removed and subgrade was decontaminated. That generally involved taking out a nominal thickness of the soil to confirm it was decontaminate and then visual inspection.

Q. Can you turn to Attachment C of Exhibit 3?

A. Yes.

Q. Isn't this an example of a decontamination of a geomembrane liner?

A. Yes. I do apologize. I was speaking from personal experience.

Q. Right.

A. This was not a project that we were involved with, but this was an example of a project that we found in our research where a geomembrane liner that had previously been used for leachate. A portion of it was then repurposed for clean rainwater and was found to be in good condition after 25 years of service.

Q. So, Mr. Dehlin, how would you decontaminate a HDPE liner?

A. So similar to how the plant has previously cleaned liners after being used is pressure wash it in a systemic, methodical manner. And then based on what I've seen in my research, I think that would be sufficient. However, if further demonstration is required to show that it is decontaminated, there are other methods that are available. One would be a wipe test that you alluded to and that we included in the expert opinion that Dave Nielsen signed.

Q. But if the liner had to be removed instead of being reused and decontaminated and reused, what would be the process?

A. If we instructed a contractor to go in and close Pond 2 in accordance with the existing Illinois CCR Rule Standards under Part 845, they would have to take out the granular protective layers. They would have to take out the HDPE geomembrane liner. They would have to take out the Poz-O-Pac liner underneath the HDPE to get to the natural earth and subgrade materials that we discussed yesterday.

In that process the demolition contractor is going to likely go in with an excavator and take it all out. These -- it's important to note these liners are seamed, so it is one continuous piece of material. So even though they came to the site in rolls, it's not practical to just roll it back up and take it off site. It's all gonna come out. It's all gonna come out with an excavator likely, not a contractor.

What's important to note for Pond 2 is the granular protective layers above the HDPE geomembrane liner that the operators drove

equipment on and used to take CCR material out of the ponds so that they weren't driving directly over the HDPE geomembrane liner, that was exposed to CCR waste water. So it is highly likely that that material is contaminated with CCR constituents.

It is very likely in the event of all this excavation work that some of that material could make it into the earth and subgrade through the demolition process, in which case not only are we taking out all those layers I mentioned, but there would have to be additional excavation. We estimated about 6 inches based on our experience of material that would also have to come out to really confirm visually that the subgrade has been decontaminated.

Q. I want to turn to Board Question Number 4.

A. Okay.

Q. I'll read it, and then you can respond.

Board Question Number 4, Midwest Generation states, "during the demolition Pond 2, CCR would have escape from the basins when the liner is removed, thus requiring excavation of the HDPE liner, the Poz-O-Pac liner beneath, and

approximately 6 inches of soil below the liner." Petition at 16 to 17.

Please explain why CCR would escape from the basin during demolition of Pond 2 when the liner is removed if the CCR is removed for beneficial use prior to demolition?

A. So the answer that I just gave is our response to this question. It's not CCR, per se. It's CCR contaminated soils that we're concerned with here.

Q. Great.

And your concern is it's the contamination from the demolition process?

A. Yes.

Q. I'm gonna turn to Board Question Number 6.

A. Okay.

Q. Midwest Generation states some CCR that was left in Pond 2 to maintain the integrity of the liner would be removed using a multistep process, Petition at 20. How much CCR was left in place? Where will this CCR be disposed? Is there a fugitive dust plan in place for Pond 2 to address dust issues during removal?

I guess the first question, how much CCR

was left in place?

A. The -- to my knowledge, no, I'll call it free CCR was left in place. It's CCR constituents that may have percolated through the protective warning layers in that sand cushion layer. I believe that number was estimated to be around the 4,000 cubic yards of protective warning layer material. That's not 4,000 cubic yards of CCR that's left. It's just material on top of the liner that would have to be removed.

Q. And the next question, where will this CCR be disposed?

A. The material above the existing HDPE geomembrane liner will be disposed in an off-site landfill to be determined after the permit's received and contractor returns bids and designates what landfill is going to be able to receive this material.

Q. And then third question, is there a fugitive dust plan in place for Pond 2 to address dust issue during removal?

A. Yes. There is a CCR fugitive dust plan in place in Pond 2 and has been since the federal CCR rule became effective in October 2015.

Q. And that would be effective during the removal process, right?

A. Right.

Q. Mr. Dehlin, we're talking about the removal of waste if we have to do a full removal of the liner. Approximately how much waste including the liner would be sent to a landfill?

A. So we estimated that in the expert opinion.

Q. In Exhibit 2, actually.

A. Yes. Oh, I apologize, in the affidavit.

So as Mr. Dave Nielsen states in his affidavit, specifically Paragraph 6, the total volume of liner and underlining Poz-O-Pac soil removed from Pond 2 would be approximately 8,700 cubic yards that would have to be removed from the pond and hauled off site to a landfill.

Q. And once removed, what would Midwest Generation -- I'm sorry. I skipped a question.

And how -- approximately how much would it cost to remove and dispose the liner and said material?

A. We estimated the labor cost to be $1,117,291.

Q. And, Mr. Dehlin, did you also estimate the cost to remove the ancillary equipment?

A. It is not in the affidavit, but, yes, I have since estimated the costs that would be required to remove and replace the ancillary equipment.

Q. Do you remember what that number is?

A. Yes. It's approximately $70,000 to demolish the concrete inlet structure which is -- there's a concrete distribution trough that the waste is fed into, and then there's a concrete apron along the side slope of the pond that it goes down to get to the bottom of the pond. And then on the opposite end at the outlet, there's an outlet concrete structure. So that approximately $70,000 covers demolition of both of those structures.

Q. Would the number 72,815 be more representative of --

A. Yes, yes.

Q. And when you say remove, that also includes the disposal costs, right?

A. Yes. That includes demolishing at the site and bringing it to a landfill.

Q. Okay. So once we remove the liner and the

ancillary equipment, what would Midwest Generation have to do to be able to use the pond as a low volume waste pond?

A. They would then have to install a new HDPE geomembrane liner as well as replace the concrete structures they just demolished.

Q. And the new HDPE liner, would that be different than the current liner?

A. It would be the same, would be that 60 mill white HDPE geomembrane liner.

Q. And approximately how much would it cost to reline the pond with the same liner?

A. We estimated that it would cost approximately $160,772 for the geomembrane liner.

Q. Did you also subsequently calculate the cost to add in the ancillary equipment?

A. Yes. The concrete structures, admittedly a lot of concrete, would cost approximately $360,000.

Q. Very good.

I want to turn to Board Question Number 12.

A. Okay.

Q. On Page 16 of the February 4, 2022,

recommendation, the agency states Midwest Generation is required to present alternative compliance methods. Please comment on whether Midwest Generation intends to submit information on alternative compliance methods and their costs.

Mr. Dehlin, what were the alternative compliance methods and the costs that we presented?

A. The alternative compliance -- and this alternative compliance to the standard for closure by removal, we take out all the liners and ancillary equipment and replace it, and so alternative compliance methods refers to what we would do instead.

The primary -- the cost we looked at here would be the cost to clean the liner as we just discussed, washing down in that systematic manner; and then if it was required to demonstrate decontamination, we suggested wipe samples as being one option that would be available to do -- to perform that demonstration.

Q. And just to remind us all, what was the approximate cost to clean and conduct the confirmatory samples of Pond 2?

A. Approximately $36,000.

Q. Okay. I want to turn to, and only because I meant to do it earlier and I missed it, Board Question Number 9.

A. Okay.

Q. Midwest Generation contends that if Pond 2 were to be contained or constructed with CCR any releases of the primary CCR indicators would have been detected in the previous 10 years of groundwater monitoring. Midwest Gen Response at 2 to 3. But Midwest Generation has also stated that Pond 2 contains CCR up to 2019, Petition at 19. Excuse me, Petition at 9.

Please clarify the statements for consistency.

A. So my understanding of Midwest Generation's contention here is looking at whether Pond 2 was constructed with CCR or its embankments otherwise contained CCR. I think that's what the contains refers to here. In general, the contention is the CCR that was placed in Pond 2 was placed over a liner, originally that Poz-O-Pac liner, and now presently at least since up to 2019 an HDPE geomembrane liner. So hopefully that provides clarification.

Q. Okay. I want to turn to Board Question Number 16, please.

A. Okay.

Q. On Page 3, you state -- and this is questions for Mr. Dave Nielsen and his expert opinion, and so these are questions to you, sir, about the expert opinion, Exhibit 3, attached to Midwest Gen's petition.

A. Okay.

Q. So on Page 3, you state, "the reuse of geomembrane liners from CCR surface impoundments that are properly decontaminated and undamaged can enhance the protection of health and the environment when they are repurposed for non-CCR impoundments, including low volume waste ponds."

Question 16A, please comment on whether you have worked on projects involving the decontamination and reuse of geomembrane liners in CCR surface impoundments which are subject to regulations like the Board rules under Part 845.

A. So in our experience we have not worked on projects involving the decontamination of reuse geomembrane liners that are subject to regulations like the Board rules. For the most part, the

projects that we've worked on are in states that either have adopted the federal CCR rule by reference or just the federal CCR rule is the regulations that are meant to follow.

And a lot of the projects that we've worked on have been on unlined CCR surface impoundments, so no liner was present that needed to be decontaminated. It was just a process of it was a closure by removal or a retrofit taking CCR material that was there out and then decontaminating the subgrade usually by the removal of material that it was on, and then visually confirming that there was no CCR material that was left.

MR. RAO: May I ask a follow-up?

MS. GALE: Of course.

THE WITNESS: Yes.

MR. RAO: You're familiar with how Midwest Generation has used Ponds 1 and 3?

THE WITNESS: Yes.

MR. RAO: So do you consider those ponds to be repurposed from what they were intended to be earlier when they were used -- I think at least one of the ponds was used for containing CCR, Pond 1,

if I'm right.

MS. GALE: You are right.

MR. RAO: So would you consider that pond to now be repurposed for storing processed water?

THE WITNESS: Yes. My understanding is the station would like to use Pond 2 in if not the same, a similar manner as currently using Pond 1.

MR. RAO: In the case of Pond 1 and 3, were there any decontamination done similar to what is being proposed here or were they just emptied and then used for processed water containment?

THE WITNESS: My understanding is those ponds were cleaned in similar manners. I had recommended for decontamination where the CCR was carefully removed. The geomembrane liner was visually inspected for any tears, rips, punctures after being pressure washed similar to the method that the station would use to routinely clean the ponds when it was necessary to recover storage capacity.

MR. RAO: Thank you.

BY MS. GALE:

Q. We're actually just going to continue on with the questions, the Board questions. So we've already answered Number 17.

So let's move on to Number 18.

A. Okay.

Q. On Page 5 you note, "it is my opinion that performing one set of wipe samples and tests per acre is an appropriate testing frequency. This opinion is based on the USEPA guidance that one permeability test should be performed per acre per lift of compacted clay liner."

18A, please explain for the record how a wipe test is conducted to determine whether the liner is contaminated.

A. So there is a specific ASTM standard that we referenced for this wipe test. I believe it's ASTM D6966, the 2018 publication of it, which was attached as Attachment B to Mr. Nielsen's expert opinion. But in general what it involves is taking the wipe sampling from an area of the liner, in this case we would be doing one wipe sample per acre, and then that wipe sample would be sent to a lab and would be tested for or analyzed for what constituents were picked up.

Q. Okay. Question 18 --

MR. RAO: May I ask a follow-up?

MS. GALE: Of course.

MR. RAO: So what would you consider as a successful wipe in terms of, you know, finding there is as indicated no contamination? Does that no detection means no contamination?

THE WITNESS: I think ideally, yes, no detection would be what we would strive for. But generally when doing these kinds of tests, you want some sort of background because there may be things on the liner that -- I'm not thinking of any off the top of my head, especially when it comes to CCR constituents, but I think we would want to look at a background sample of wipe geomembrane liner that was manufactured using a similar process as the geomembrane that was installed.

MR. RAO: If a wipe test comes with some detection of CCR related contaminants, then would that result in you going back and recleaning that section?

THE WITNESS: Yes.

MR. RAO: Okay.

BY MS. GALE:

Q. Okay. So Board Question 18B, explain the rationale for using the testing frequency, one test per acre, for conducting permeability tests for

wipe testing. Is there any relationship between permeability testing for compacted earthen liner and wipe testing of HDPE liner to support the use of the same testing frequency, one wipe test per acre, for the wipe test?

A. So there's not a direct relationship other than the relationship we were relying on or the logic that we used was the permeability of a clay liner is of the utmost importance when it comes to waste containment. It's the primary purpose for that clay liner being there.

So based on the research that's been done in the referenced EPA paper that Mr. Nielsen provided in his expert opinion that we reviewed and industry standard being you test the permeability for each lift of the clay layer that you place every acre and that being the quality assurance that you need to know that your clay liner is going to meet its specified permeability, we feel that one wipe test per acre would be an appropriate quality assurance I guess to put the -- to compare the two.

In addition, the CCR waste water the way that it's placed is placed relatively uniformly

across the pond that all that liner other than that 2 feet that was above the operating water level has been exposed to CCR waste water. So we would expect that when you test the geomembrane in one area, it's going to be representative of other areas.

Q. And sorts of to put a finer point on that, as you say, this isn't like a municipal landfill where one cell has a certain type of waste, another cell has a different type of waste. This, you know, surface impoundment has the exact same waste throughout the entire impoundment, right?

A. Yeah. And to continue on that analogy, it's like one landfill cell where all this waste has been placed and has been since, in the case of the HDPE geomembrane liner, since 2008.

Q. Very good.

Question, excuse me, Question 18C, considering Pond 2 is approximately 4 acres, 174,240 square feet, comment on whether conducting four wipe tests would be adequate to demonstrate that the liner is fully decontaminated.

A. So based on the discussion relative to Question 18B here, yes, I believe that to be four

wipe tests, one wipe test per acre, to be adequate to demonstrate that the liner is fully decontaminated.

Q. Okay. 18D, comment on alternative options for testing frequency that would be more representative of the size of the liner.

A. So related to our responses to questions 18B and 18C, I believe one test per acre to be representative for this size liner.

Q. And is that consistent with existing construction quality assurance standards?

A. For compacted clay liner?

Q. Yeah.

A. Yes.

Q. Question 18E, I believe you already answered it, but I'll do it again.

How much does it cost to perform -- well, how much does it cost to perform a wipe test?

A. Yes. So that $36,000 that we estimated was cleaning and performing the wipe test. We estimated that each wipe test would take about $2,000 to conduct it to test.

Q. Board Question 19 on Page 5, you provide a calculation of energy use to manufacture 10 acres

of HDPE. However, Midwest Generation's petition states that Pond 2 is approximately 3.9 acres, Petition at 14.

19A, please clarify whether the energy consumption for manufacturing 4 acres of HDPE would equate to 1,720,000,000 BTUs?

A. Yes. That is -- that is correct.

Q. And then 19B --

A. Actually could I --

Q. Of course.

A. -- provide a clarification on that?

The amount of energy -- just so everyone's on the same page, we found that the estimated energy to manufacture the resin so that that base material for the geomembrane for 10 acres of 60 mill HDPE would require over 4.3 billion British Thermal Units or BTU of energy. So the 1.72 billion here is a direct linear relationship, so it's disproportionate.

So it is correct that 1.72 billion BTU would be the energy consumption for four acres of HDPE liner, but specifically the resin. This energy -- there would be more energy that would be required in manufacturing it and transporting to

the site. So I just want to clarify that this was for the resin.

Q. And the resin, the ingredient?

A. Yeah. So the polymer that we're looking at here, HDPE, it's like pellets is probably the best way to describe it. When the geomembrane is made, you have pellets of the base material, and then it's mixed in with respect to HDPE carbon black and antioxidants for UV resistance. So it's the -- resin is about 70 percent of the geomembrane liner.

Q. So I just heard you say they add an antioxidant for UV, and we just discussed about the UV degradation of HDPE liner. Are you telling me that as part of the HDPE liner they considered UV degradation?

A. The manufacturer of HDPE geomembrane considers it so much that the standard specification requires certain criteria be met under certain oxidation tests to be able to estimate how long an HDPE geomembrane would last when exposed to UV. The testing that I referenced earlier by the Geosynthetic Research Institute, looking at how long you could expect an HDPE liner

to last, is based on those standards.

Q. Okay. Board Question 19B, to provide a perspective on the energy consumption, what would be the energy cost based on average cost in the U.S.?

A. So we did look at this prior to the hearing, so I apologize if I stumble over some of the numbers I calculated. But given HDPE geomembrane liner we're looking at petroleum based products, we looked at how much energy nominally you could get out of one barrel of crude oil. So we went to the United States Energy Information Administration which has a lot of good statistics on energy, and we found that approximately 5.7 million British Thermal Units could, I guess for lack of a better term, be extracted from one barrel of crude oil.

So if we want to put this into how many barrels of crude oil it would be, you're looking at about 3 -- over 300 barrels of crude oil would be required for just manufacturing the resin for 4 acres of 60 mill HDPE geomembrane. So that's the energy input required. If we look at cost, wanting to keep things apples to apples, understanding that

our costs are in 2021 dollars from when we submitted the affidavit and the expert opinion, the average cost of a barrel of crude oil last year was about $68. So if you take that $68 times 30,000, you're gonna get just over $20,000, closer to $21,000.

It's important to note that all these dollar amounts that we've estimated are 2021 dollars, including the ancillary equipment demolition removal I quoted today. We all know that inflation is relatively high right now, not just relatively high, very high right now. So just that alone I would expect all these dollar amounts that we've discussed here today to be increased from when we originally filed this petition for adjusted standard.

Q. All right. Thanks.

So Question 19C, how does the energy cost compare to the cost of replacing existing HDPE liner with 4 acres of a new line other?

A. So I hope I am answering this question as intended, but I just did a direct dollars comparison. So you have the $21,000 that is based off the 300 -- 300 barrels of crude oil for the

resin, and then we ultimately estimated the total cost to manufacture, or not necessarily manufacture, but to procure the new HDPE geomembrane liner to install it to be approximately $160,772.

Q. Okay. I want to turn to Board Question Number 20. Now, Mr. Naglosky answered A, B and C. Looking to D, comment on whether there are any significant differences between the design and operation of Ponds 1 and 2 that may raise concern with the reuse of decontaminated liner in Pond 2.

A. I do not believe there are any significant differences between the design and operation of Ponds 1 and 2 based on my review of the historical design drawings and my understanding of the operation of the ponds. They're similarly sized.

MR. RAO: Miss Gale?

MS. GALE: Yes, sir.

MR. RAO: Did Question Number C, 20C, was that question answered?

MS. GALE: Yes.

MR. RAO: Whether the Agency's approval?

MS. GALE: Yes.

MR. RAO: I might have missed that. I'm sorry.

BY MS. GALE:

Q. Mr. Dehlin, do you recall the question to Question 20C?

A. I do. The repurposing of Pond 1 did not require the Agency's approval.

MR. RAO: Okay.

MS. GALE:

BY MS. GALE:

Q. Thank you.

A. You're welcome.

Q. Board Question Number 21, on Page 6, you note that when HDPE liner is removed from an impoundment, at least 6 inches of subsoil would have to be removed and disposed of as well, excuse me, removed and disposed of as well to confirm the removal of all CCR contaminated subsoils.

21A, in case of Pond 2 which has a Poz-O-Pac liner below the HDPE liner, is there a need to excavate the subsoils below the Poz-O-Pac liner?

A. So in the scenario that we discussed where if Pond 2 is held to the standards in the Illinois CCR rule where everything has to come out, everything being the protective soil layers and all

existing liner materials which in this case would be the HDPE geomembrane and the Poz-O-Pac, we felt that when that gets removed as part of the demolition process, there is the potential for contaminated material to get into the subgrade, and therefore that subgrade approximately 6 inches would have to be removed.

Q. And I guess I want to just sort of elaborate on that, why you felt that. I mean, this is a -- this would be a demolition project, right?

A. Yes.

Q. So in demolition project what happens?

A. It's -- I want to say it's certainly a controlled process, but in terms of demolition the contractor's coming in with an excavator and just ripping everything out. Comparatively, when you're installing a liner, it's a very careful, very slow process. Demolitions especially for a pond like this tend to happen a lot faster.

Q. Great. Thanks.

So 21B, if not, would there need to be a transport -- excuse me. If not, would there need be a -- I might have copied it wrong.

If not would there be a need to transport

liner material using 200 dump truck loads for the 4-acre pond? And I believe you answered yes to the prior question.

A. I did, yes.

Q. So 21C, also, please provide an estimation of the number of truck loads that would be required if the Poz-O-Pac liner as well as 6 inches of subsection is excavated for disposal?

A. So we provided -- the response I'm providing to this question is in Paragraph 7 of Mr. Nielsen's affidavit. The Poz-O-Pac liner and 6 inches of subsoil we estimated to be approximately 8,712 cubic yards based on a dump truck with a 15 cubic yard capacity, that would require about 580 dump trucks.

Q. That's it for the Board questions.

Okay. Mr. Dehlin, I just want to end with in your expert opinion based upon these costs, is it worth it to remove the HDPE liner in Pond 2 for disposal and replace it with an identical liner?

A. I do not.

Q. Tell me why.

A. I believe that the existing liner based on its 14 years of service, the waste that its held,

which I believe we've demonstrated would not cause contamination that would require it to be removed, and its service life is important because it's only been in place for 14 years. We certainly think if even if it was exposed to the elements the entire time, it would still have good structural integrity that it could be reused.

So I think based on everything that I've looked at and some of this research that I brought up today, that liner's in good condition. It can be decontaminated by taking the ash off of it and washing it down and be repurposed as a low volume waste pond. I think it's a waste of time, materials, and of course money to replace that liner.

Q. Thank you, sir.

A. You're welcome.

MS. GALE: I have nothing further.

HEARING OFFICER HALLORAN: Thank you, Miss Gale.

Miss Diers, you need a moment before your cross?

MS. DIERS: Just a moment, thank you.

HEARING OFFICER HALLORAN: We're off the

record.

(WHEREUPON, a short recess was taken.)

HEARING OFFICER HALLORAN: Back on the record. You may proceed, Miss Diers.

MS. DIERS: Thank you.

CROSS-EXAMINATION

BY MS. DIERS:

Q. I just have a few questions.

A. Okay.

Q. One, to your knowledge has the Poz-O-Pac or black silty gravel at Joliet 29 Pond 2 been analyzed for soil total metals or leachable metals?

A. Not to my knowledge.

Q. It appears in your expert opinion you covered the exposure and potential for the puncture of the liner. However, I don't believe I read where you address testing the integrity of the seams of the liner. So in your expert opinion, is that integrity testing of the seams of the liner, would it deem the liner competent for further use?

A. If you were to test the seams of the liner?

Q. Correct.

A. In my opinion, I do not think it is necessary in this application to test the seams of the liner. I think that the visual inspection where you're going through the entire geomembrane, which includes the seams, to identify any punctures rips or tears would be sufficient.

Q. Are there nondestructive methods for testing the seams of the liner to demonstrate competence?

A. Yes.

Q. And what would those be?

A. One commonly used nondestructive test is referred to an air channel test.

Q. And what would that be?

A. So you use a device to -- it runs over the seams. Typically the seams that are used for an HDPE geomembrane is what's referred to as a double wedge seam, so it's really two welded seams. And you run through the seams to confirm that there's air loss and hence the air channel. So air runs through it, and if you have no leaks, you're not gonna have any air come out.

Q. And do you think that would be an appropriate test to use here?

A. In my opinion I think that's more cost time to test seams that I think can be inspected visually.

Q. Are you familiar with ASTM D6747-21 standard guide for selection of techniques for electrical leak location of leaks in geomembranes?

A. I am.

Q. Is this ASTM a summary of various nondestructive methods using electrical equipment for testing whether a geomembrane has leaks?

A. Yes.

Q. Does this ASTM provide methods to eliminate the removal of water or the earthen materials within the impoundments?

A. Can you repeat that question, please?

Q. Sure.

Does this ASTM provide methods to eliminate the removal of water or the earthen materials within the impoundments?

A. Does it provide -- I'm sorry. I'm having difficulty following.

Q. I'm not trying to trick you.

A. No, I understand you're reading directly from it. I'm just trying to follow.

Q. That's okay.

Does the ASTM provide methods to eliminate the removal of water or the earthen materials within the impoundments?

A. So I'm going to try to understand this or going to respond to this question based on how I think I'm hearing it.

Q. Okay.

A. That method allows for testing of the integrity of the geomembrane liner after material's been placed on it. There's various methods you can use to test a geomembrane even if material is on it. I believe that was done here when the liner was installed at Joliet 29 and the protective warning layers were placed on it because in my opinion that's when the liner's most at risk to being punctured is when you're physically placing those granular materials onto the liner. So you can do a leak location -- electrical leak location survey on a liner when it's not exposed.

Q. In the History of Construction Appendix A-2 drawings on second and third page of the appendix, do you have that?

A. I think that's Volume 1.

Q. I can wait until you get there to ask the question.

A. Thank you. Appendix A-2?

Q. Yes. I have Appendix A-2 drawings on second and third page of the appendix.

A. Okay.

Q. Was the composition of the granular fill below the Poz-O-Pac determined?

A. I've not seen any construction records to my knowledge indicating what that granular material was other than its thickness being one foot and the compaction requirement.

Q. Were any of the borings that you have reviewed been installed on the interior slopes of the Pond 2?

A. No. To my knowledge, all the borings that I reviewed were drilled through the crests of the embankments.

Q. How does the wipe test determine that there are no contaminated subsoils as included by Part 845.740A of the regulations?

I'm assuming -- first, are you familiar with 845.740A?

A. Yes.

Q. Then I'll ask the question again for you. How does the wipe test determine that there are no contaminated subsoils as included by Part 845.740A?

A. So the wipe test as I understand it, its foundation was for testing of lead constituents. So you wipe the surface to be tested. In this case it would be the geomembrane liner. You can bring it to the lab for an appropriate test to be run to determine what the constituents -- the concentrations of chemical constituents that are on the wipe are.

The most common method I'm familiar with of this being is a atomic spectometry, but that is also a little bit beyond my knowledge to be able to fully explain that. But I know that's the test that's most commonly run for a wipe test.

Q. Does wipe testing test the material below the liner?

A. No. It would be testing the surface of the liner.

Q. If clay liners should be tested in 1-foot lifts or less during placement, why shouldn't subsoils be tested in 1-foot intervals of depth to

ensure that the subsoils are not contaminated?

A. That's -- I think we're comparing -- le me think of that. So that comparison of -- so in Pond 2, what I think research has demonstrated is that there's not going to be a significant permeation of CCR constituents through an HDPE geomembrane liner. HDPE is highly chemically resistive to those types of metals based on the research that we submitted here today. So I think when considering that, I do not think there's a need to test the subsoils underneath the existing liner.

MS. DIERS: All right. I have nothing further. Thank you.

HEARING OFFICER HALLORAN: Thank you, Miss Diers.

Miss Gale, redirect?

MS. GALE: Just a little bit.

REDIRECT EXAMINATION

BY MS. GALE:

Q. So I think we discussed this analysis of the HDPE liner, and they mentioned the leak location test. And I think you mentioned it, but I want to put a finer point on it.

In 2008 when Pond 2 was relined, what sort of testing did they do on the HDPE liner?

A. There was an electrical leak location test to my knowledge that was done after the protective granular soil materials were placed over that 12-ounce geotextile fabric.

Q. And that electrical leak location testing, that confirmed there weren't any holes in it, correct?

A. Let me -- I think I know where it is. I'd like to review the documentation.

Q. Sure.

A. Cause I know I've looked at a lot of different surveys that were done for the Midwest Generation site, so I want to make sure I answer correctly for Joliet 29.

Q. I think you want to go to your Exhibit D.

A. Is this Volume 1 or 2?

Q. This is Volume 2. Go to Exhibit D, Attachment 2, which is the construction documentation for Ponds 1 and 2.

A. Okay. Yes. I do know as part of the contractor submittals they submitted the results of these tests.

Q. Yep. And you want to go to Attachment A-9?

A. Okay. I'm there.

Q. In the second letter, the one that's dated June 2, 2008, is that what you're thinking of?

A. Yes.

Q. Why don't you read that through to refresh your recollection, then we can talk about?

A. Okay.

Q. So in these leak location tests, they analyze the whole liner, right?

A. Correct.

Q. And so it's apart to make sure the seams have been sealed. Is that the right word?

A. Not -- yeah, the seams that were adequately welded. Research has shown that if there's going to be punctures, tears or rips or holes in the liner, seaming is where that's most likely to happen. But it's also important to note that when they did this, they also were wanting to make sure that if, for example, an excavator went too far down, and they tore in the middle where the seams are. So it's not just the seems. It's everything. It's the solid material that the

panels comprised of as well.

Q. So they did this in 2008?

A. Yes.

Q. Mr. Dehlin, based upon your review of the use of the pond and the studies that you reviewed about HDPE liners, is it necessary to do this again?

A. I do not think it is necessary to do it again based on what I said earlier. I think in this application, the liner's most -- it's most susceptible to tears, punctures and rips when that granular material is first being placed. Something that also gets mentioned when it comes to liner systems for solid waste facilities is the issue of settlement. If it settles too much, you can have tears in the liner if it's not appropriately addressed.

This pond has been operating in some function since 1978 and has always had a liner, whether that be the Poz-O-Pac liner or the HDPE liner. I am not expecting significant settlement that will have occurred since 2008 that would necessitate a worry that the liner would even tear under those kind of conditions. So we're not

placing material at a rate that would puncture the liner in that instance, and I'm not expecting significant settlement to occur.

Q. Okay. Mr. Dehlin, I want to turn back to -- she turned you to the Sheet A of Appendix A-2 in the History of Construction?

A. Yes.

Q. Can you turn to those?

A. Yes.

Q. Okay. It should be if you flip to Sheet Number -- I actually don't know how to read these. I'm looking the one that has the cross section with Section U and Section B?

A. Okay. I am there.

Q. I think in Volume 2 you have them bigger.

A. Okay.

Q. So if you go to Volume 2, Exhibit 3, so your expert report, it should have them bigger?

A. Exhibit 3?

Q. Or I'm sorry. Exhibit D, sorry.

A. Okay.

Q. Attachment 3.

A. Yes, okay, so History of Construction.

Q. Yeah.

A. I do have them bigger. Thank you.

Q. So I'm looking at, for lack of better term, one, two, three, four sheets in. In the bottom corner it states, ponds and basins profiles, sections and details, and I guess in the bottom right is that a 2?

A. Yes, where it says --

Q. Fifth sheet?

A. Rev 2?

Q. Yeah, 2. So we're on the fifth sheet in.

A. But it's the drawing that shows Section U and Section V, correct?

Q. Right.

A. Yes.

Q. So Ms. Diers asked you about testing the embankments. Do you recall that question?

A. I do.

Q. And does Section V show a cross section of Pond 2, one of Pond 2's embankments?

A. Yes. It shows the section, yes. That's the outflow, so that would be the northeastern embankment.

Q. Okay. And what do these cross sections under there mean?

A. So these cross sections show the original construction.

Q. I'm sorry. I said it wrong. I'm not an engineer.

So you see those bricks looking like structure like things underneath the embankment?

A. Yes.

Q. The hashing or the dark color?

A. Uh-huh.

Q. What does that mean?

A. So to -- looking at Section V which is for Ash Pond 2, they don't -- they being Knoops Corporation, the engineer that prepared these drawings, they don't state on Section V what those brick looking symbols are. However, if you look at Section U, they do have that called out. Now, Section U is for Ash Pond 1, but I'll explain how it's applicable to Ash Pond 2 as well.

But they state in Section U, remove existing muck not suitable for embankment and replace with compacted suitable fill TYP. TYP on engineering drawings means typical. That means whatever this note is pointing to on that engineering drawing, it is applicable throughout or

typical throughout, hence the use of it. So this callout on Section U for Pond 1 towards those brick symbols applies to the brick symbols for Section V. That's how the contractor would interpret this drawing.

So what that tells me is when the excavation was done, and it looks like they also had to place additional fill above the original ground surface when they went to build the embankment, they placed what would be termed here compacted suitable fill. And it looks like that extends up to the crest elevation for which we have borings that have been drilled through that material.

Q. And what does that mean to you? What does that tell you?

A. That tells me that the material that was placed here during construction of Pond 2 was earthen materials, clays, sands, gravels, highly unlikely that it is CCR material.

Q. Okay. Great.

Ms. Diers also asked you about the wipe sampling comparing it to the clay liner, the lifts of clay liner, and the wipe sampling or, excuse me,

the sampling of the lower levels of the clay liner and the lifts and the wipe sampling. Mr. Dehlin, when they sample the lift, lower lifts of the clay liner, each lift is part of the liner, correct?

A. Correct.

Q. And so in this case, so there -- and what are they sampling for? What's the purpose of sampling each lift at that clay liner?

A. You want to confirm that the permeability that has been specified for the liner is being met, typically tested at one location per acre.

Q. And so each lift of the clay liner, that's the whole liner, right?

A. When you say whole liner, are you referring to area?

Q. Well, it's all part of the same clay liner, right?

A. Yes. The liner when specified is going to come from the same borrow source, whether that's on site or off site. The test that's being done is less about the material, and it's more about ensuring that the contractor is following appropriate compaction methods and applying that throughout the entire liner to ensure that the

permeability requirements are being met.

Q. Got it.

And so in your comparison of using that one acre, one sample per acre, that is simply a -- not necessarily an apples and apples, right? They're not doing a wipe sample for the clay liner. It's just your method of trying to get a representative sample as that they use in a clay leaner, right?

A. Correct. It's a quality assurance comparison. So if testing the liner for its most important quality once per acre is sufficient in that application, then our feeling is that if demonstrating the liner is decontaminated through analytical testing is required, that this would be a suitable option for performing that demonstration and at that one-per-acre rate.

Q. And when they're installing this clay liner and confirming that each layer has the proper permeability, do they sample the subsoils?

A. There's -- typically for these types of applications, the subgrade has to be compacted, rolled smooth. That's very typical for this. So, yes, it is tested. Frequencies can change honestly

depending on the type of subgrade that's present, but you're not testing that the permeability of the subgrade that is irrelevant in a waste containment application. You're looking at testing the permeability of the materials that are being used to prevent the waste from leaking into the groundwater.

MS. GALE: Okay. Mr. Halloran, may we have a minute?

HEARING OFFICER HALLORAN: Yes. We're off the record.

(WHEREUPON, a discussion was had off the record.)

MS. GALE: I have nothing further.

HEARING OFFICER HALLORAN: All right. Miss Gale has indicated she has nothing further on the redirect.

Miss Diers, re-cross?

MS. DIERS: Nothing further. Thank you.

HEARING OFFICER HALLORAN: Miss Gale, have you rested your case in chief?

MS. GALE: Yes. I would just like to move to admit the exhibits that were attached to our original petition and recommendation as well as

Exhibits 29, 30, 31, 32, 33, 34, 35, 36 and 37. And I believe per -- and I can't remember the specific rule of the Board rules, I will then file these exhibits except for the Poz-O-Pac with the Board electronically within I think seven days, 29 through 37.

HEARING OFFICER HALLORAN: 29 through 37, okay. Miss Diers, any objection?

MS. DIERS: No objection.

HEARING OFFICER HALLORAN: Thank you. They are so admitted.

Miss Gale, have you rested your case in chief.

MS. GALE: I do now. Thank you, sir.

HEARING OFFICER HALLORAN: Thank you. Let's take a quick minute. Off the record.

(WHEREUPON, a short recess was taken.)

HEARING OFFICER HALLORAN: We can go back on the record. Midwest has just rested their case in chief. Miss Diers from the Agency stated she would like to respond to the Board questions at a later date and then follow-up responses by Midwest. And the parties have agreed to figure out a timeline

when that'll happen, and then you can email me. I know some of you are on vacation, but try to email me as soon as possible with some kind of schedule.

MS. DIERS: I was looking at our response is due July 8, just to give you a time frame. I go on vacation right after the 8th. I'm in next week, so I can get them out by July 8 before I go. Just to give you something to think about, if you want to follow up with Brad on what that looks like or what you need to respond back and stuff, but that's kind of what I was thinking.

MS. GALE: That's next Friday.

MS. DIERS: Yeah.

MS. GALE: So we can respond by July 22.

MS. DIERS: Okay.

MS. GALE: And then after this we'll have to discuss briefing schedules for the closing brief.

HEARING OFFICER HALLORAN: Right. All right. Miss Diers, you're on.

MS. DIERS: All right. Thank you. I was gonna ask a few questions of Miss Hunt, but I've decided not to. I have Miss Hunt here, Mr. Rompot, Mr. Hubbard. They all three filed affidavits in this matter that were attached to our

recommendations. I believe they were Attachment A, B, let me see if I got the other one, and H. I believe that is correct for those. So they are here. They are open to the Board, to Miss Gale to ask questions. I don't know who you would like to ask first, how you would like to do it. I will leave it up to you.

HEARING OFFICER HALLORAN: And if questions are asked, we'll put him or her up.

MS. DIERS: Do you want them all three just to sit up there now and swear them in or --

MS. GALE: I think one at a time makes sense. I think the order doesn't really matter to me. Why don't we start with Mr. Hubbard?

(WHEREUPON, the witness was duly sworn.)

THOMAS HUBBARD,

called as a witness herein, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MS. GALE:

Q. Mr. Hubbard, I don't believe you have in front of you your affidavit. Have you read it recently?

A. Yes.

Q. You have it there, excellent.

And this is Exhibit I of the Agency's recommendation?

A. It says H on it.

MS. DIERS: I had H.

MS. GALE: You're right. I'm sorry. I have it double-sided.

BY MS. GALE:

Q. Exhibit H of the Agency's, so please turn to Paragraph 4 of your affidavit where you state, I reviewed the records of the permit section within the Bureau of Land. And you mean the records for Pond 2 at Joliet 29? Is that what you're talking about?

A. Yes. I looked to see if they had applied for beneficial reuse under Section 3.135 of the act.

Q. Do you remember --

Ms. Gale: Section 3.135 of the act, I would like to make that Exhibit 38.

(WHEREUPON, Exhibit No. 38 was marked for identification.)

BY MS. GALE:

Q. So can you point me to which section you're referring to in Section 3.135? It's rather lengthy.

A. It is. It's Subpart B, says to encourage the promotion of utilization --

MS. DIERS: Can you speak up?

THE WITNESS: Sorry. In Subpart B, it says, to encourage and promote the utilization of CCB in productive and beneficial applications, upon request by the applicant the Agency shall make a written beneficial use determination that coal combustion waste is CCB when used in this manner other than those uses specified in Subsection A. And it continues on.

BY MS. GALE:

Q. Okay. So other than those uses specified in Subsection A?

A. Correct.

Q. Can you turn to Subsection A? And I'm looking at A2 which states, the use of CCB as a raw ingredient or mineral filler, the manufacture of the following commercial products, cement, concrete and concrete mortars, cementitious products

including block pipe and precast distressed components. Do you see that there?

A. Yes.

Q. So Subsection A2 is excluded from where you review in B, right?

A. Correct.

Q. And so you don't consider or you don't receive or need to approve the use of coal combustion waste when used in cementitious products, correct?

A. Correct.

Q. I just want to point to you -- I believe, correct me if I'm wrong -- no, actually I don't. I take that back.

I want to turn back to B, so in under B, generally speaking, would be uses of like using coal combustion waste, I guess I'll say this.

Coal combustion waste is effectively coal combustion residuals, right?

A. Right.

Q. When we say CCR, it can mean CCW?

A. Yes.

Q. Under B, when you're considering the beneficial application of a coal combustion waste

as CCB, first you're considering the coal combustion waste, correct? Like whether it's coal combustion waste, you're looking at whether coal combustion waste can be used as coal combustion byproduct, right?

A. Yes.

Q. So you would not expect to receive an application or data analysis for fill that is not coal combustion waste, correct?

A. Correct. The section is specifically for coal combustion waste or residual.

MS. GALE: Okay. I have nothing further.

HEARING OFFICER HALLORAN: Thank you.

MS. DIERS: I have no questions.

HEARING OFFICER HALLORAN: You may step down, Mr. Hubbard. Thank you.

(Witness excused.)

MS. GALE: I'd like Mr. Rompot, if I may.

(WHEREUPON, the witness was duly sworn.)

DEREK ROMPOT,

called as a witness herein, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MS. GALE:

Q. Mr. Rompot, what do you have in front of you?

A. I have a copy of my affidavit, a site plan, and copies of the MPDS permits and the 19 -- the construction permit for the liner replacement.

Q. In 2008?

A. 2008.

Q. Okay. And are those going to be used as exhibits here or what are they here for?

A. Just for my reference in case I'm asked questions about the specifics of any of the permits.

Q. Got it. Are those the documents you looked at when you stated the statements in your affidavit?

A. Yes, it was. Yes, they are.

Q. Anything else other than those documents?

A. When I prepared my statement, I reviewed all the permits that Illinois EPA had issued.

There were multi -- there are several permits basically for sledge application that were state permits that I did not make copies of or consider in the review because they're irrelevant to Pond Number 2.

Q. And you mean all the permits. So you're talking air permits, too, or what if kind of?

A. Bureau of Water permits.

Q. Thank you.

Okay. And how far back do those permits go?

A. The earliest permit we had was the initial MPDS permit which was issued in September 7, 1984.

Q. Okay. So you state here in Paragraph 5 of your affidavit, I have not been able to locate a permit for the initial construction of Pond 2.

A. That is correct.

Q. You don't know if a permit for the initial construction of Pond 2 was required, do you?

A. That is correct.

Q. You also talk about paragraph Number 7 and -- I'm sorry. Paragraph 7, you also talk about the notification of beneficial use or reuse of CCR material Joliet 29. You see that there?

A. Yes.

Q. Is that related to or similar to Mr. Hubbard's analysis under section -- about coal combustion byproduct?

A. That is correct.

Q. Are you familiar with that statute?

A. Yes.

Q. Okay. Do you have it in front of you, Exhibit 37?

A. I do not have it in front of me.

Q. Where did it go?

MS. DIERS: Is it Exhibit 38?

THE WITNESS: Section 3.135 of the Illinois Environmental Protection Act.

BY MS. GALE:

Q. Okay. Can you turn to Section B on the second page?

A. Yes.

Q. Is that the section you're referring to in Paragraph 7 of the beneficial reuse?

A. It is, yes.

Q. So, yeah. So Section B states, to encourage and promote utilization of CCB and productive and beneficial applications upon request

by the applicant, the Agency shall make a written beneficial use determination that coal combustion waste is CCB.

That's -- we're on the same page?

A. Correct.

Q. And then it continues, when used in a manner other than those specified in Subsection A of this section. You see that there?

A. Yes.

Q. Can you turn to Subsection A?

A. I am there.

Q. So Subsection A, I'll start with A and then skip to 2. Coal combustion byproduct means coal combustion waste when used beneficially in any of the following ways. 2, the use of CCB as a raw ingredient or mineral filler in the manufacture of the following commercial products, cement, concrete and concrete mortars, cementitious products, including block pipe and precast, prestressed components, and it continues.

Do you see that there?

A. Yes.

Q. So under Section 3.135, you would not get an application for beneficial reuse for

cementitious products, correct?

A. Correct.

Q. Let's go back to Section B. Section B is regarding the determination of the use of coal combustion waste as CCB, correct?

A. Correct.

Q. So you wouldn't expect to receive an application for fill material that is not coal combustion waste, would you?

A. Correct.

MS. GALE: Nothing further.

HEARING OFFICER HALLORAN: Miss Diers?

MS. DIERS: I have no questions. Thank you.

HEARING OFFICER HALLORAN: You may step down. Thank you.

(Witness excused.)

MS. GALE: And last, but certainly not least, Miss Hunt.

(WHEREUPON, the witness was duly sworn.)

LAUREN HUNT,

called as a witness herein, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MS. GALE:

Q. Good morning or, yep, we're still morning. What do you have in front of you?

A. This is the recommendation as I submitted it to the Board and then the updated Quarter 1 Joliet 29 groundwater data summary.

HEARING OFFICER HALLORAN: I'm sorry. Could you state your name for the record, please?

THE WITNESS: Lauren Hunt, L-a-u-r-e-n, H-u-n-t.

BY MS. GALE:

Q. So you said Quarter 1 in the --

A. 2022.

Q. Thank you.

A. Yeah.

Q. We didn't -- weren't sure if we heard the year.

Miss Hunt, you do not have a degree in engineering, correct?

A. Yes, correct.

MS. DIERS: Make sure you speak up for the court reporter, please.

THE WITNESS: Okay.

BY MS. GALE:

Q. You're not a licensed professional engineer?

A. That is correct.

Q. And in your employment history you have no experience as an engineer, correct?

A. Can you please clarify?

Q. What are you confused by? I guess, I did not see -- I guess tell me in your employment history where you were employed as an engineer.

A. Again, please clarify what you mean by working as an engineer.

Q. Okay. What is your understanding of working as an engineer?

A. I have worked internationally in support of and with the engineers, but also making field engineering decisions. So I am again asking for clarification.

HEARING OFFICER HALLORAN: Could you keep your voice up, please?

THE WITNESS: Sorry.

HEARING OFFICER HALLORAN: No, no, that's fine.

BY MS. GALE:

Q. So you can open up to your affidavit, Attachment 1.

A. Okay.

Q. And go to your -- you're at Exhibit A, Attachment 1?

A. Yes.

Q. What work are you referring to where you worked with a engineer? And you can tell me here in your exhibit, Attachment 1.

A. Can you clarify?

Q. Yes. I'm looking at your CV, right?

A. Okay.

Q. And your CV identifies where you worked, right?

A. Correct.

Q. So you just told us that you worked in capacities with engineers and in the field with engineers. Can you identify to me what you're referring to?

A. Apparently they did not put my CV in here. When I was working internationally.

Q. Yeah. Sure, when you were working

internationally. Yes. That's clarifying. When you told me you worked internationally with engineers, where was that?

A. When I worked in the Middle East.

Q. Okay. Where in the Middle East?

A. United Arab Emirates.

Q. And who were you working for?

A. CH2M Hill.

Q. And what was your title when you were working for them?

A. May I confer with counsel?

HEARING OFFICER HALLORAN: Yes, you may.

(WHEREUPON, a discussion was had off the record.)

HEARING OFFICER HALLORAN: You may continue, Miss Gale. Thank you.

THE WITNESS: All right. I worked in the Middle East in the United Arab Emirates in the capacity of reviewing and providing engineering guidance for a confidential client and confidential project. The work encompassed meteorology, biology, hydrogeology, geotechnical engineering, geophysics, geology, foresight characterization for a confidential site. And I am held by an NDA, so

that is all I can say. And it was in 2009.

BY MS. GALE:

Q. So --

A. In 2008, sorry.

Q. What was your position title?

A. Site characterization site manager.

Q. Okay. And you listed off a bunch of things that you did. What were your primary duties, generally speaking, without breaching any NDA?

A. Reviewing all of the documents that came in for planning characterization and then implementation in the field to ensure that it was still being implemented appropriately.

Q. And were some of these documents prepared by engineers?

A. Yes.

Q. And this project, was it related to contamination?

A. Can I confer with counsel.

MS. DIERS: Can we go off the record?

HEARING OFFICER HALLORAN: Yeah. Let's go off the record.

(WHEREUPON, a discussion was had off the record.)

HEARING OFFICER HALLORAN: Let's go back on the record.

Miss Gale, ask your question again.

BY MS. GALE:

Q. So what you were doing was you said geotechnical, biology. Was it related to civil engineering?

A. Yes.

Q. Was it related to a impoundment?

A. That would have been part of the overall design of the facility.

Q. Okay. Did it involve a geomembrane liner?

A. Given the nature of the project, that would have not have been something of consideration at that time.

Q. Did it involve Poz-O-Pac?

A. It was 2008 and 2009, and Poz-O-Pac was out of trademark by then. So I wouldn't -- I guess I'm confused by the question.

Q. Did it involve any material equivalent to Poz-O-Pac?

A. Not that I'm aware of right now.

Q. Did it involve any type of liner?

A. Not that I'm aware of.

Q. So when I asked you originally about you said you have experience working with engineers, and you said internationally, does what we just discussed cover how you worked with engineers?

A. No.

Q. Okay. What other instances have you worked with engineers?

A. I worked as an engineering, excuse me, engineering geologist with our -- with at the time the tunneling transportation and water infrastructure business units within CH2M Hill, now Jacobs.

Q. Okay. And when you were -- your title was an engineering geologist?

A. Can you clarify?

Q. When you just described you worked at CH2M Hill, what was your title?

A. Geologist.

Q. Thank you.

And your educational degrees were in geology and hydrology, correct?

A. My educational degrees are in geology and

hydrogeology.

Q. Oh, sorry, hydrogeology.

Okay. But you're not a licensed professional geologist?

A. No.

Q. Miss Hunt, you understand that the Joliet 29 CCR was primarily disposed at the Lincoln Stone Quarry across the river, correct?

A. Can you repeat the question?

Q. Sure.

You understand that the CCR that was generated at Joliet 29 was disposed at the Lincoln Stone Quarry, correct?

A. That was not a part of my investigation for this, for the purpose of this.

Q. Oh, so you don't know that it was disposed at the Lincoln Stone Quarry?

A. I cannot speak to whether or not it was.

Q. You were here yesterday when Mr. Naglosky testified, correct?

A. Correct.

Q. So you heard him testify that a vast majority of the CCR went to the Lincoln Stone Quarry, right?

A. That is correct.

Q. Okay. But before yesterday, you didn't look at whether -- where most of the CCR that was in Pond 2 or the CCR that was part of Joliet 29, you didn't consider where it went?

A. That is correct.

Q. Okay. Ms. Hunt, you're familiar with groundwater seepage velocity?

A. That is correct.

Q. And so you're familiar that that's the velocity of the groundwater as it seeps through the ground, right?

A. Correct.

Q. But in your analysis at Joliet 29, you didn't consider the groundwater seepage velocity below groundwater in Pond 2, correct?

A. As a representative of the Agency, we do not have access to all of that data that would be required for that analysis.

Q. So you're not aware that that data was submitted to the Agency?

A. That was not the focus of my investigation.

Q. Okay. So I guess to clarify my

understanding, you don't know whether the Agency has that data?

A. It wasn't in my scope of my investigation, no.

Q. Ms. Hunt, you're familiar with the Illinois Tiered Approach to Corrective Action objectives, so commonly called TACO values under Part 742?

A. Yes.

Q. Okay. But you did not review the soil background values under TACO, correct?

A. That is correct.

Q. Okay. And, Ms. Hunt, let's look at your affidavit. Do you have it in front of you?

A. Yes.

Q. And, generally speaking, and speaking in Paragraphs 21, 22 and 23, you relied upon Recommendation Exhibit D, right?

A. You said 21, 22 and 23?

Q. Yeah.

A. I relied on Recommendation Exhibit D, E and G it looks like.

Q. I want to focus on Exhibit D, so just to -- Exhibit D, and you can look, is the History

of Construction, correct?

A. Correct.

Q. Okay. And then in Paragraphs 21, 22 and 23, you relied upon the History of Construction which is Exhibit D, Attachment 3, Appendix A-3, and I guess also in 23 A-2, right?

A. That's correct, I believe. Yes, that is correct.

Q. But you did not rely upon A-4, correct?

A. Let me see what A-4 is. I'm sorry.

Can you clarify the question?

Q. Well, I'm looking at your Paragraphs 21, 22 and 23, where you state you relied upon Appendix A-3 in each of those paragraphs.

Do you see that there?

A. That is correct.

Q. And you don't state in Paragraphs 21, 22 and 23 that you relied upon A-4, correct?

A. I don't say that, correct.

MS. GALE: I have nothing further.

HEARING OFFICER HALLORAN: Thank you, Miss Gale.

Miss Diers?

MS. DIERS: I have nothing. No questions.

HEARING OFFICER HALLORAN: Thank you. You may step down. Thank you so much.

(Witness excused.)

HEARING OFFICER HALLORAN: Let's go off the record, please.

(WHEREUPON, a short recess was taken.)

HEARING OFFICER HALLORAN: Back on the record. The parties have agreed. We believe the transcript should be ready by July 7, 2022. Based on that, the parties are filing simultaneous briefs September 13, 2022, responses due October 7. Public comment is due August 5, 2022. And then they agreed the Agency will get their answers to the questions out by I believe you said July 8, Midwest to respond July 22, Agency answer by July 29.

Does that sound correct?

MS. DIERS: Correct.

HEARING OFFICER HALLORAN: All right. I think we're finished.

MS. DIERS: I just have one more thing, just a procedural --

HEARING OFFICER HALLORAN: Yes.

MS. DIERS: I believe everything is in the record because we attached it to our recommendation. I just want to move everything that we had attached to our recommendation into the record.

MS. GALE: No objection.

HEARING OFFICER HALLORAN: Terrific. And then you can address that, too, in your exhibits.

MS. DIERS: Thank you.

MS. GALE: No objection here.

MS. DIERS: Thank you.

HEARING OFFICER HALLORAN: That's granted. Thank you all. Safe drive and we're just out of here perfect timing. Thank you so much. 1130.

(WHEREUPON, proceedings were adjourned at 11:30 a.m.)

STATE OF ILLINOIS)
) SS:
COUNTY OF C O O K)

RAELENE STAMM being first duly sworn, on oath says that she is a court reporter doing business in the City of Chicago; and that she reported in shorthand the proceedings of said hearing, and that the foregoing is a true and correct transcript of her shorthand notes so taken as aforesaid, and contains the proceedings given at said hearing.

Raelene Stamm

Certified Shorthand Reporter