ILLINOIS POLLUTION CONTROL BOARD
April 17, 2025

IN THE MATTER OF:	)	
	)	
STANDARDS FOR THE PLACEMENT	)	
OF LIMESTONE RESIDUAL	)	
MATERIALS: PROPOSED NEW 35	)	R 25-21
ILL. ADM. CODE 706	)	(Rulemaking -
	)	Land)
	)	
	)	
	)	

Hearing before the Illinois Pollution Control Board
Transcript of Proceedings

April 17, 2025

Reporter: Joanne Ryan, CSR
CSR NO. 084-003334

The aforementioned proceedings were held on April 17, 2025, at the Illinois Pollution Control Board, Chicago Office, 160 North LaSalle Street, Chicago, Illinois, before Joanne Ryan, a certified shorthand reporter.

PRESENT:
ATTENDING BOARD MEMBERS:
Michael Mankowski
Michelle Gibson
Angela Tin
Dr. Anand Rao
Essence Brown

BOARD STAFF:
Daniel Pauley, Hearing Officer

PROPONENTS - ATTORNEYS:
Dennis Walsh, Klein, Thorpe & Jenkins
Robert Leible, City of Aurora
Alex Alexandrou, City of Aurora

Alec Messina, HeplerBroom, LLC
Randi Wille, Holcim, Incorporated

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY:
Nick San-Diego

OFFICE Of The ILLINOIS ATTORNEY GENERAL:
Mallory Meade

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(Exhibit 4 not attached.)

THE COURT: Good afternoon, and welcome to this Illinois Pollution Control Board hearing. My name is Daniel Pauley, and I am the hearing officer for this rulemaking proceeding entitled Standards for the Placement of Limestone Residual Materials: 35 Illinois Administrative Code 706. The Board docket number for this rulemaking is R25-21.

Also present today from the Board are Board members Michael Mankowski, Angela Tin, Michelle Gibson, and in Chicago from the Board secular unit we have Anand Rao and Essence Brown.

This hearing is governed by the Board's procedural rules. All information that is relevant and that is not repetitious or privileged will be admitted into the record. Please bear in mind that any questions posed by the Board and staff are intended solely to help develop a clear and complete record for the Board's decision and do not reflect any decision on the proposal testimony or other questions.

For the sake of our court reporter, please speak clearly and avoid speaking at the same time as another person so that we can help produce a clear

transcript.

The City of Aurora and Holcim, Incorporated jointly filed this rulemaking proposal with the Board on February 4th, 2025. In March 2025 there was published for this hearing in papers circulated in the Aurora, Springfield and Chicago areas. On March 21st, 2025 the hearing officer directed participants intending to testify at this hearing to pre-file their testimony by April 3rd.

On that date the Board received pre-filed testimony on behalf of the City of Aurora from Alex Alexandrou and Robert Leible, as well as on behalf of Holcim, Incorporated from Randi Wille. No other participants pre-filed testimony.

Before we move on to the testimony, I wanted to raise a procedural issue. On April 3rd, 2025 proponents filed a motion for correction by delineation, and seeking to correct parts of the statement of reasons. Today marks the end of the response deadline for the motion, and the Board has not received any response.

Are there any objections to granting the motion to correct the statement of reasons? Hearing none, I grant the motion to correct.

Now we can move to the testimony. We will begin by swearing in all three of the witnesses that pre-filed testimony. Section 102-424(F) of the Board's procedural rules provide that pre-filed testimony will be entered into the record as if read, but the witnesses may begin with a brief introduction or summary if they wish to do so. We will then turn to pre-filed questions first from the Attorney General's Office followed by the Illinois Environmental Protection Agency. We will then see if anyone else has questions before moving to the Board's pre-filed questions. And after that we can see if there is anyone who want's to give a brief public comment at this time. And then is there any questions about the order of the proceeding? All right.

(No response.)

HEARING OFFICER PAULEY: Will the court reporter please swear in the three witnesses. And if you guys could actually state your name on the record and what party you're with whenever you're -- we can do that now and then we'll do the swearing in.

(Whereupon Alex Alexandrou, Robert Leible and Randi Wille were sworn.)

MR. WILLE: Randi Wille. I do.

MR. ALEXANDROU: Alex Alexandrou, City of Aurora. I do.

MR. LEIBLE: Robert Leible, City of Aurora. I do.

HEARING OFFICER PAULEY: As mentioned earlier, the pre-filed testimony is entered into the record as if read.

Does the City of Aurora or Holcim, Incorporated wish to offer a brief introduction or summary?

MR. WALSH: The City of Aurora would.

HEARING OFFICER PAULEY: Go ahead. Please state your name for the record.

MR. WALSH: Good afternoon, Hearing Officer Pauley and members of the Board. My name is Dennis Walsh, I'm a partner at the law firm of Klein, Thorpe & Jenkins.

I appear today as environmental counsel on behalf of the City of Aurora in support of the proposed rulemaking. We are here today because Aurora, like many municipalities in the State of Illinois, faces significant challenge in managing their byproduct of its drinking water treatment

process lime residual material or LRM.

For well over a decade the City of Aurora has pursued a responsible, sustainable and cost effective solution for managing this material. In that time the City has explored various methods, secured regulatory permits, and even worked with private industry partners to identify a path forward that meets both operational and environmental goals.

Despite these efforts, regulatory and operational constraints have left the City with limited and expensive options for LRM disposal, primarily land filling and land application, both of which present long term sustainability and financial concerns.

This rulemaking offers a needed solution. Section 22.63 of the Environmental Protection Act was enacted specifically to allow for the placement of LRM and underground mines using methods other than injection. The proposed rule part 706 regulations implement legislative intent in providing municipalities like the City of Aurora with a viable, safe and regulatory compliant alternative for LRM placement.

To support the record in this matter, the

City of Aurora respectfully requests that the pre-filed testimony of Alex Alexandrou, the City's chief management officer and chief of staff and Robert Leible, Aurora's superintendent of water production, be entered into the record as read. We thank you for doing that.

Mr. Alexandrou's testimony provides the policy and management perspective of the City and explains why this rule is essential to the City's long term financial and environmental sustainability. Mr. Leible's testimony describes the generation, composition and tested safety of the LRM itself, demonstrating that the proposed placement and underground limestone mine is scientifically sound and environmentally responsible. Together their testimony confirms that the proposed rule is not only necessary, but appropriate and fully aligned with Illinois' environmental protection framework.

The City of Aurora urges the Board to adopt these rules and to allow municipalities to implement forward thinking solutions for LRM management that protects both the environment and the public's resources.

Thank you for your time and consideration.

We are available to answer any questions that the Board or any stakeholders may have.

MR. MESSINA: Thank you, Mr. Hearing Officer. I would just add, I'm Alec Messina with HeplerBroom representing Holcim in this matter.

And again, appreciate that you've already entered in Mr. Wille's testimony as if read. I would just note for all the participants, since we haven't had a chance to talk about this particular issue before the hearing here, but there are a number of questions that we will -- that we intend to address in written comments after the hearing has concluded, given that in our estimation some of those questions asked for a legal opinion or asked for specific rationale-wide language is not included in the original proposal.

So I know we will talk about timing of that along with all the other things as we wrap up today's hearing, but I just wanted to let people know in advance that that was something we would be talking about.

HEARING OFFICER PAULEY: Okay. I appreciate it. And before we move on to questions, I would like to, if there's no objection, enter each of the

pre-filed testimony as I said, a hearing exhibit, just so it's easier to refer to it by number. We'll do -- hearing no objection, I will enter Mr. Alexandrou's as Hearing Exhibit No. 1. Mr. Leible's as hearing Exhibit No. 2. And Mr. Wille's as Exhibit No. 3.

(Whereupon Exhibit Nos. 1, 2 and 3 were marked and entered into the record.)

HEARING OFFICER PAULEY: And if the witnesses are ready, we can proceed with questions first with the Illinois Attorney General about this.

Again, pre-filed questions, we'll enter the pre-filed questions as if read. But if it's easier for you guys to read them aloud, you can read them aloud and then you can answer whoever it may be directed to, but we have all three of them together at once.

MS. MEADE: So would you like me to read them aloud?

HEARING OFFICER PAULEY: Could we go off the record for just a second?

(Recess was taken.)

HEARING OFFICER PAULEY: We can go back on the record. Thank you.

MS. MEADE: Good afternoon, everybody, my name is Mallory Meade, and I work with the Illinois Attorney General's Office. We pre-filed our questions in this rule making on April 10th, 2025.

My plan is just to read down this list of questions, and if you have any questions for me or if I speak too quickly or too quietly, please just let me know.

So question number one for Mr. Alexandrou from the City of Aurora.

ALEX ALEXANDROU,

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

EXAMINATION

MR. ALEXANDROU: The answer to number one is yes.

MS. MEADE: Question number 2 for Mr. Alexandrou.

MR. ALEXANDROU: So my pre-filed testimony stated that, and I quote, under the revised approach LRM will be dewatered, transported to the mine site by truck, and moved to its final placement location within the mine using appropriate machinery, close quote.

The appropriate machinery aspect of that

statement was in reference to movement of the LRM to its final placement location within the mine. As for what appropriate machinery that might be, that's a question better answered by Randi Wille from Holcim.

MS. MEADE: And question number 3 from Mr. Alexandrou.

MR. ALEXANDROU: So question 3, there were actually three questions within question 3. Not that I think that was a trick question. So I'm going to take them one by one.

First was why is the dewatered LRM less likely to migrate? Dewatered LRM is significantly less likely to migrate due to its physical and chemical characteristics following the dewatering process. When LRM is dewatered, its moisture content is substantially reduced transforming the material from a slurry-like or semi-fluid state into a more solid stable form with lower permeability. This reduction in pre-water content minimizes the potential for flow or dispersion within the mine cavity.

In particular the dewatered LRM becomes a cohesive compactible material with limited ability to spread beyond the area of placement. The lack of

free liquid phase reduces the possibility of mobilization through cracks, voids or fissures in the mine's geological formations. Additionally the LRM's alkalinity and binding properties further promote material cohesion enhancing its structural stability upon placement.

The second question, what is the likelihood that dewatered LRM would migrate? The likelihood of migration of dewatered LRM when placed in accordance with the operational safeguards and engineering controls proposed by the City of Aurora and Holcim is extremely low. The mine itself, the mine environment itself, excuse me, a closed stable limestone formation offers additional containment as does the surrounding geologic structure, has low permeability and limited hyperlogic connectivity. Moreover the dewatered state of the LRM means that it does not exhibit the flow behavior typically associated with slurries for fluids that might otherwise travel through such formations.

Operational safeguards such as site specific placement protocols, compaction procedures and periodic monitoring further mitigate any mitigation risk. Based on current best practices and available

scientific data, the risk of meaningful migration is minimal to negligent.

Finally, what are the expected harms if dewatered LRM migrates? Although the likelihood of migration is minimal, if migration were to occur, the potential harms would primarily depend on the direction and extent of movement. In the unlikely event of significant migration, theoretical risks could include infiltration into adjacent mine areas, this could complicate further or future land use for operational activities within the mine.

Second, interaction with groundwater pathways. If LRM were to encounter a fracture or conduit with hydrologic connectivity, there could be potential for elevated PH or turbidity in localized groundwater zones. However, it is important to underscore that these harms are speculative and unlikely, particularly given the nature of the dewatered material, the site's geologic containment, and the engineer controls placed.

The City's proposed disposal method was specifically designed to avoid these outcomes by using the dry, stable and environmentally sound placement process consistent with Section 22.63 of

the Illinois Environmental Protection Act.

MS. MEADE: Thank you.

MR. ALEXANDROU: You're welcome.

DR. RAO: I have a follow-up question if you are done with this question.

HEARING OFFICER PAULEY: Go ahead, Mr. Rao.

DR. RAO: Mr. Alexandrou, you mentioned with the dewatering the moisture content will be much lower.

What will the moisture content be of the dewatered LRM?

MR. ALEXANDROU: So I think Mr. Leible could probably better answer that than I. But I know that periodically it has differed based on the outcome from the plant, weather conditions, because it gets dewatered in outdoor lagoons right adjacent to the plant.

So our goal, and I'm again speaking from my layman's experience, but the experience with the plant for almost 25 years, our goal has always been to move the LRM in as dry as a state as possible, so as dewatered as possible before it gets taken away. But maybe specifically you can address Mr. Leible.

MS. MEADE: Okay. Moving on to Mr. Leible from the City of Aurora.

ROBERT LEIBLE,
called as a witness herein, having been first duly sworn, was examined upon oral interrogatories and testified as follows:

EXAMINATION

MS. MEADE: Question one.

MR. LEIBLE: So the LRM is a semi-solid material as evidenced by the example that I brought here, a glass jar of actual material. A remainder of the non-solid portion, and it's going to be a correction at 60 to 65 percent water.

HEARING OFFICER PAULEY: And then do either of you guys want to enter that as a hearing exhibit?

MR. WALSH: Sure.

HEARING OFFICER PAULEY: Any objections to that? All right. We'll enter the limestone example as Exhibit No. 4.

(Whereupon Exhibit No. 4 was marked and entered into the record.)

MR. WALSH: Thank you.

MR. LEIBLE: And this is what -- if I may, this is what would be hauled away and put into the mine, in this state.

MS. MEADE: All right. Number 2.

HEARING OFFICER PAULEY: I'm sorry. We have a follow-up question by Angela.

MS. TIN: Are the pellets like that or is it more powdery?

MR. LEIBLE: Well, this is just kind of broken up from shoving it into the jar, but it's a solid material, yeah. It may be, you know, broken up like that a little bit, but in the lagoon and in the hauling process it's semi soft.

MS. TIN: So it can be scooped out?

MR. LEIBLE: Correct.

MR. ALEXANDROU: In the lagoons sometimes it looks like you would see at Death Valley, like a dry bed and there's cracks in this. And then when they excavate it, it comes up in fairly large dry or chunks. Correct, Bob?

MR. LEIBLE: Correct.

HEARING OFFICER PAULEY: Mr. Rao, do you have a follow up?

DR. RAO: Yes. You mentioned that in response that maybe 60 to 65 percent would be the moisture content of this dewatered LRM, is that correct?

MR. LEIBLE: Yes. We routinely measure the

percent of solids of the material, and the solids portion is the 35 to 40 percent stated, so physically the remainder would be bottled water.

DR. RAO: Okay. So when this material is placed in the mine, Mr. Alexandrou mentioned there would be some compaction done when it's placed in the mine.

Would the compaction result in any leachate or anything being generated from the LRM that's placed in the mine?

MR. LEIBLE: We don't believe so. The material is dry, we haul this, and it can't have liquid water. So placed in the mine the way it holds water it's bound. If anything there might be water evaporation from the material.

DR. RAO: Okay.

MR. ALEXANDROU: It's pretty consistently in, what, the 50 to 55 degree range down there?

MR. LEIBLE: Yes.

MR. ALEXANDROU: So it's a very cool environment.

MR. LEIBLE: It's well ventilated for the workers.

DR. RAO: Okay. Thank you.

HEARING OFFICER PAULEY: You may proceed to the next question then.

MS. MEADE: Question 2 for Mr Leible.

MR. LEIBLE: Calcium carbonate is approximately 89 percent of the solid portion with magnesium precipitate approximately 4 and a half percent.

Calcium carbonate equivalent is a comparison to pure calcium carbonate with respect to the amount of acidity that a material can neutralize, which intends to serve the similarity of LRM to pure calcium carbonate.

Magnesium hydroxide is the second most prominent chemical constituent. Iron is the next prominent inorganic constituent at about one percent. And we can submit an analytic report in our post-hearing comments that has more details technically on the composition of the LRM.

HEARING OFFICER PAULEY: We have a question.

MS. TIN: The acidity of the PH seems to be important. Is the PH kind of more of a set number or is it a range of acceptability of the PH that you're looking for?

MR. LEIBLE: Well, the PH is the end result of this byproduct as produced in the water treatment plant. So this is a precipitate of high PH water treatment, so that's the end natural.

MS. TIN: And you measure that PH at that point?
MR. LEIBLE: Well, we don't measure that regularly, but it's tested in our analytical -- in our annual testing.
MS. TIN: And the reason I ask is because you said that the PH is important to retract the leachate.
MR. LEIBLE: Correct.
MS. TIN: So I was wondering if there was a good PH you're trying to shoot for the byproduct.
MR. LEIBLE: No. I mean, again it's a waste product, so we're not shooting for anything. It's just the end result of water treatment in a softened process. It's the precipitated material from that.
MS. TIN: Thank you.
MS. MEADE: Question 3 for Mr. Leible.
MR. LEIBLE: We will be submitting an analytic report in our post-hearing comments that has more details on the composition of the LRM. The toxicity characteristic leaching procedure, TCLP is a method used to determine if a waste is characteristically hazardous.
LRM material does not leach any regulated TCLP contaminants into the environment based on this

test method, i.e., all TCLP parameters are below the respective regulatory levels.

MS. MEADE: Question 4 for Mr. Leible.

MR. LEIBLE: The answer is yes.

MS. MEADE: And 4A?

MR. LEIBLE: TCLP is appropriate for all LRM in order to determine if the material is hazardous as a waste, which LRM is not, but more importantly to demonstrate the stability and inertness of the material as contaminants are leachable.

TCLP is not specific to any one means of disposal or placement. It is not used for land application permitting or approval. LRM has been tested for comparison against fast running groundwater standards and for PFAS.

MS. MEADE: Question 4B?

MR. LEIBLE: I have the current compliance levels as a separate document, which we will submit in post-hearing comments prior to the second hearing. I am not aware of whether the compliance levels have been changed since the last update to test method 1311.

MS. MEADE: And question 4C.

MR. LEIBLE: Test results per ASTM method D-3987

show no exceedance of classic groundwater standards.

MS. MEADE: And finally question 4D.

MR. LEIBLE: Yes, the testing performed in 2022 shows no detectable levels of PFAS in LRM. This is expected as the lime softening process that generates the LRM has no removal efficacy for PFAS in water treatment, therefore PFAS will not end up in the LRM.

MS. MEADE: And question 5A.

MR. LEIBLE: USEPA -- I am not aware of any statement or action by the USEPA that has addressed abandoning or withdrawing either the specific test methods or handbook that are proposed to be incorporated by reference in the proposed rules.

MS. MEADE: And question 5B.

MR. LEIBLE: Documents that we propose to incorporate by reference are still present on the USEPA's website and publically available as of today. I am not aware of any statement or action by USEPA that is addressed to deleting these specific documents from USEPA's website.

MS. MEADE: Just one moment. All right. Thank you. And Mr. Wille.

RANDI WILLE,

called as a witness herein, having been first duly

sworn, was examined upon oral interrogatories and testified as follows:

EXAMINATION

MS. MEADE: Would you please address question number 2 that we asked Mr. Alexandrou? He mentioned that you would be more able to --

MR. WILLE: In regard to appropriate machinery?

MS. MEADE: Right.

MR. WILLE: For appropriate machinery for the highway transport portion, we plan to use semi dump trucks with sludge locks or they're also called mud locks to keep the LRM from dripping on to the roadway. I believe current trucks used to transport LRM also use plastic liners to prevent material from sticking to the truck beds, which would help prevent spillage.

As for the appropriate machinery for underground transport after it's gone down the shaft. Such equipment may include line haul trucks, end loaders and possibly even a belt conveyor system to lead it to its final resting place.

MS. MEADE: And question number one.

MR. WILLE: Accelerated water migration is any flow of water that due to the existence of open voids

is expected to be faster than it's normal rate of flow through the hose drive. It is highly unlikely that there is a possibility that we could encounter some seepage of LRM into the bedrock as it continues to dry out, but we will be able to monitor and manage any seepage we would encounter.

Sealing open voids would help limit how many suspended solids might migrate through the rock, where solid rock will act as a filter for the suspended solids. There are no risks associated with accelerated water migration because any migration would be captured.

Capture and discharge of any such migration via the mines NPDES permit would be addressed in more detail in response to a question from the Illinois EPA. As to past accelerated water migration, we have seen accelerated water migration in very localized areas within the underground portion of the mine.

HEARING OFFICER PAULEY: We have a follow-up question. Mr. Rao, go ahead.

DR. RAO: I have a follow-up question. Earlier Mr. Alexandrou mentioned how within the mine the rocks are of low permeability or hydraulic conductivity.

So, Mr. Wille, do you know or have you tested the rock material to see what kind of hydraulic conductivity it has?

DR. RAO: I wouldn't have that answer. We can certainly -- I would have to ask our engineers to provide that.

DR. RAO: If you have any information, you can submit it in the comments.

MR. MESSINA: We will make a note and address it in the written comments as to that, Mr. Rao.

DR. RAO: Okay. Thank you.

MR. MANKOWSKI: One follow-up question. Mike Mankowski, Board member.

You stated there have been some localized areas within the mine that did have accelerated water migration. Is there any thought about not using those portions for the LRM migration?

MR. WILLE: To the best of my knowledge, the area where we had it once was on the other side of the mine. And again, you're talking about a mine that is 168 acres from the north, south, east and west. So it was localized, very local and it went away.

MR. MANKOWSKI: Okay. Thank you.

MR. SAN-DIEGO: Nick San-Diego, Illinois EPA. I

don't know if this is directed to your testimony, Mr. Wille.

But someone mentioned engineering controls to help prevent, you know, migration of either leachate or water. Can you specify in more details in terms of what engineer controls were referenced?

MR. WILLE: Well, as far as bringing the LRM to the site to the dump shaft, we are going to have a cover built over the dump shaft that's removable so that the trucks only are dumping when they need to, so that way we're not going to allow any additional precipitation from rain storms to commingle with it, just to keep it in as dry a state as it is in that jar.

And when it's down below, once it gets down below it will land on a concrete pad, and then we will pick it up and move it with our mining equipment and store it in the cavities that are on the City's property. The engineering controls are really on the surface, because once it hits the shaft, it's pretty much under our control down below.

MR. SAN-DIEGO: Thank you.

MS. MEADE: And question number 2.

MR. WILLE: As to frequency of transporting LRM.

Transports will likely occur on a monthly basis only when an LRM lagoon is fully dewatered and ready for load out. We expect to load up to 1600 trucks per year or 132 trucks per month on average. The number of truck loads will not increase in frequency beyond what is currently being done to transport the LRM for either land application or disposal in the landfill.

Trucks will be idling for very short periods of time during loading and unloading of LRM. During the loading process trucks are anticipated to sit idle for approximately five to ten minutes. During unloading trucks are anticipated to sit idling for approximately one to three minutes.

As to the delivery route, we will travel one and a half miles on Illinois Route 25. The delivery route will begin in the Environmental Justice area at the water treatment plant, but will end before reaching the drop shaft at the mine, which is not located in the Environmental Justice area.

It is important to note that the number of truck miles traveled will be greatly reduced for current practices.

HEARING OFFICER PAULEY: Mr. Leible.

MR. LEIBLE: Yeah. Just to add a little bit of

clarity for his answer for number 2, as the person who coordinates and manages the removal of material from the plant.

It's hauled from the lagoons on an intermittent basis throughout the year, typically that involves 60 to 70 caliber days over the entire year, and it's intermittent.

MS. MEADE: Question number 3.

MR. WILLE: No, we are using best management practices to prevent any additional water from commingling with the LRM before it is deposited down shaft.

MS. MEADE: And question number 4.

MR. WILLE: Proposed Section 706.200 contains prohibition in its unauthorized placement. Specifically proposed 706.200 states that, quote, placement for permanent storage in the facility is prohibited unless an authorization has been issued pursuant to this part, end quote.

Proposed Section 706.420 states that, quote, it will not be a defense for the operator in an enforcement action that it would have been necessary to halt or reduce the permanent placement of LRM in the facility in order to maintain compliance with the

conditions of its authorization, end quote.

The remainder of the proposed rules contain numerous requirements that a person must meet. It was the proponent's intent that the proposed rules if adopted by the Board would be enforceable via Section 31 of the Illinois Protection Act.

MS. MEADE: Thank you. No further questions.

HEARING OFFICER PAULEY: Thank you. Now we can move to the agency questions.

MR. SAN-DIEGO: Sure. Nick San-Diego for the Illinois EPA. And these questions are directed to the panel, so whoever is most appropriate to answer, please do so. Question 1.

MR. MESSINA: This is Alex Messina again with HeplerBroom. And I would indicate -- I would just like to suggest that that particular question as also Questions 2 and 3 all call for a legal opinion, and we will provide a response in our post-hearing comments ahead of the second hearing.

MR. SAN-DIEGO: As a follow up to Question 2 though, are you aware of any other states that authorize LRM to be placed in underground mines, and if so under what regulatory program is such placement authorized?

MR. MESSINA: Again, I think that we don't have anyone here who is capable of addressing that question, but it's one that we will respond to in our written comments following this hearing.

MR. SAN-DIEGO: Question 4.

MR. WILLE: Randi Wille, I'll address Question 4. Access roads on site are paved solid rock or compacted fill. A concrete pad will be constructed at the dump site to guide the trucks and contain any potential spillage. The shaft will be covered and secured when not in use, but would be uncovered when material is being dumped through the shaft.

MR. SAN-DIEGO: Question 4B.

MR. WILLE: Randi Wille again. The active pouring operations are occurring at separate locations, both vertically and laterally from the LRM placement area and will not affect placement in any way.

MR. SAN-DIEGO: And how does that affect surface operations with truck traffic, et cetera?

MR. WILLE: We'll have a main haul road which they will come in through, and their signage, because they will be a separate fleet of vehicles, will actually take a split when it gets down in the quarry

area, and then they will go around with the normal stockpiling and loading of product that's to go straight to the dump shaft area.

MR. SAN-DIEGO: Okay. And are employees, are they segregated in terms of who's working on LRM deposition side of it versus the active limestone mining?

MR. WILLE: With respect to the people that are hauling the material, they may be hired cartage, I don't think we've determined that yet. But once it reaches the shaft, that is all employees of the mine. Whether they are LRM or mining, no, it's one team.

MR. SAN-DIEGO: Okay. And in terms of that underground activity, I presume you're regulated by MSHA and maybe OSHA?

MR. WILLE: Yes, sir, MSHA.

MR. SAN-DIEGO: MSHA. Okay. And so is this deposition of LRM in the various places within the mine, in the abandoned portions of the mine, is MSHA regulating that activity?

MR. WILLE: I would expect that they would.

DR. RAO: Mr. San-Diego, would you please expand those acronyms for the record?

MR. SAN-DIEGO: Sure. MSHA is Mine Safety and

Health Administration, M-S-H-A. And OSHA is Occupational Safety and Hazard -- Health Administration.

DR. RAO: Thank you.

MR. SAN-DIEGO: And question 5.

MR. WILLE: Randi Wille again. The mine itself is already constructed and continues to be operated consistent with engineering measures applicable to mines that ensure the integrity of structural components of the mine.

Proposed Section 706.720 contains operational standards for the placement of LRM into the mine, including proposed Subsection O that states, quote, the operator shall ensure the integrity of the mine prior to, during and after placement of LRM in the mine, end quote.

Further, proposed Subsection B states that, quote, LRM must be placed in a safe manner that protects human health and the environment in conformance with the provisions of the act and the regulations under the act, end quote.

We will further assess whether any cross reference or incorporation by reference to Section 22.36 of the act is appropriate in our post-hearing

comments to be submitted prior to the second hearing.

MR. SAN-DIEGO: In what regulations, and maybe this is a legal question. But what regulations would apply in terms of to ensure that integrity and safety that you just mentioned?

MR. WILLE: You probably need to talk to our engineers. I do know we are regulated under the Illinois Department of Natural Resources for certain aspects of the mine below ground.

We can definitely include a more complete analysis before the next hearing.

MR. SAN-DIEGO: But these standards are measures for requirements, though, they're not in current Environmental Protection Act regulations.

Though will you be proposing those for part 706?

MR. MESSINA: This is Alex Messina again. And we will certainly address that in those written comments. I would suggest for the time being that there are regulations, push control board regulations currently on the books that don't repeat or reference the host of other regulations and regulatory schemes that are in place, even though they do apply to the same place and location.

So we can address that in more detail in written comments, but I think initially that's my first thought.

MR. SAN-DIEGO: Okay. Question 6A.

MR. LEIBLE: Robert Leible, City of Aurora. We will submit the results of the most recent testing in our post-hearing comments prior to the second hearing. There was no testing of the LRM required before 2012.

Just to expound upon that. We started land application of lime sludge material around that time, 2012 to 2013 via the IEPA's land application permit. So that's when regular testing and co-piling of material became available.

MR. SAN-DIEGO: Question 6B.

MR. LEIBLE: We will provide the copy of the testing in our post-hearing comments which will show the parameters tested. Testing for PFAS was conducted, no PFAS compounds were detected in the LRM.

MR. SAN-DIEGO: And how many tests or frequency of testing?

MR. LEIBLE: For specific parameters, is that your question?

MR. SAN-DIEGO: Yes. So testing since 2012, you will be providing that level of detail in terms of how often and what those results are?

MR. LEIBLE: It's annual testing for our line application permit, yes.

MR. SAN-DIEGO: Okay. I believe that's probably responsive to question 16.

MR. LEIBLE: Yes, we have standard lab reports for parameters of concern relating to lime such quality in a dewatered state, because that is the final material that is land applied or land filled by copies of the results of the testing for the guide material in our post-hearing comments.

MR. SAN-DIEGO: Question 7A.

MR. LEIBLE: Any data that was generated through the UIC permit application has not been considered any further since the UIC classified project was not pursued by the City. Current data shows trace contaminates which are not leachable via T-sale contesting.

MR. SAN-DIEGO: 7B.

MR. LEIBLE: It varies depending on the time of the year and which lagoon. Approximately five to nine weeks is typical, but it could be longer due to

whatever lagoon is being filled and dewatered at any given time.

MR. SAN-DIEGO: 7C.

MR. LEIBLE: The lime sludge requires no treatment in and of itself for land application or land filling in consideration of any environmental concerns. So we are not proposing to treat the LRM prior to placement in the mine under the proposed regulations.

MR. SAN-DIEGO: 7D.

MR. LEIBLE: Yes. Proposed Section 70C.720E would require that the LRM to be placed in a facility be sampled and analyzed by the generator on an annual basis for the procedures specified in this proposed section.

MR. SAN-DIEGO: 7E.

MR. LEIBLE: We will submit the results of the most recent testing of LRM in our post-hearing comments prior to the second hearing.

There was no testing of the LRM required before 2012. Annual testing was required by the IEPA on an application permit issued to the City which required various parameters to be tested annually.

MR. SAN-DIEGO: Question 8.

MR. MESSINA: So, Mr. San-Diego, questions 8, 19 and 20, those three questions are all questions that we will address in post-hearing comments.

MR. SAN-DIEGO: Question 9A.

MR. LEIBLE: The source of the material is limestone, which is equivalent to the calcium carbonate chemically.

MR. SAN-DIEGO: Is that coming from the Conco mine?

MR. LEIBLE: The material that we use, the raw material is mined by Mississippi Lime Company in St. Genevieve, Missouri before it even becomes a water treatment plant chemical.

MR. SAN-DIEGO: Okay. 9B, Rule 1.

MR. LEIBLE: No. In water treatment chemicals that we use in the treatment of potable water are generally certified by NSF, so the material is NSF 60 certified as calcium oxide or safe use for drinking water treatment, so it is not tested specifically.

MR. SAN-DIEGO: Question 10.

MR. LEIBLE: The City uses source water from blended groundwater, deep or shallow aquifers, and surface water from the Fox River.

MR. SAN-DIEGO: Is that via how many wells?

MR. LEIBLE: How many? Roughly 18, give or take a couple.

MR. SAN-DIEGO: And would you be able to provide the specifics for those wells in post-hearing comments, like location?

MR. MESSINA: Like locations and numbers?

MR. SAN-DIEGO: Yes.

MR. MESSINA: Sure.

MR. SAN-DIEGO: Thank you. Question --

MR. ALEXANDROU: Was the intake across the street from the plant from the Fox River, do you count that? That's not a well.

MR. LEIBLE: No, that's the surface water intake.

MR. ALEXANDROU: Got you.

MR. SAN-DIEGO: Question 11.

MR. LEIBLE: I would direct the agency to Section 3 of my pre-filed testimony. Other treatment chemicals that are utilized in the treatment of pulp processing include powder activated carbon, chlorine or sodium hypochlorite for disinfection, polystyrene chloride. These are all for the tasting odor control, disinfection and clarification.

MR. SAN-DIEGO: Question 12.

MR. LEIBLE: Raw water is not required to be

tested.

MR. SAN-DIEGO: Question 13.

MR. LEIBLE: Raw water is not required to be tested so there's no required frequency or parameters.

MR. SAN-DIEGO: 13, sir.

MR. LEIBLE: I'm sorry. I skipped ahead. Okay. I would direct the agency to Section 3 of my pre-filed testimony. Limestone or calcium carbonate is converted to calcium oxide for industry use by the Mississippi mine.

In our circumstance the City purchases calcium oxide, which is then slaked within the City water treatment process for dosing into the treatment process in the form of calcium hydroxide slurry. Calcium hydroxide chemically reacts with soluble calcium bicarbonate present in drinking water sources.

MR. SAN-DIEGO: Question 14.

MR. LEIBLE: The lime sludge is dewatered naturally in the water treatment plant lagoons and then hauled for disposal via land application or land fill.

MR. SAN-DIEGO: Question 15.

MR. LEIBLE: Approximately 35,000 wet tons generated each year.

MR. SAN-DIEGO: Question 16.

MR. LEIBLE: Same answer. Approximately 35,000 wet tons are disposed of.

MS. TIN: Question. This is wet tons. Do you have a dry ton figure too?

MR. LEIBLE: Well, we can get that for you. Yeah, it's a calculation.

MR. SAN-DIEGO: So the answer to question 16, was that the same amount 35,000 wet tons? So moving forward presuming you have authorization rules, no more land applications?

MR. LEIBLE: I think that's the intent, yes. I think that could be a backup if needed.

MR. SAN-DIEGO: Question 17.

MR. WILLE: This is Randi Wille. Assuming that the rooms can be filled to within 10 feet of the roof on both levels, because filling to the roof may not be possible, we calculate approximately 129 years of life on the City property. This assumes 35,000 tons per year with no swell factors or compaction factors considered. An additional five feet on both levels would add another 20 years of life.

Per mining on level one of the south mine would provide for even more storage. We are not mining there present time. It's somewhat of an off spec material that if it ever gets sold, we can get to it. Again, it's a large area.

HEARING OFFICER PAULEY: We have a few follow-up questions. Mr. Rao.

DR. RAO: Yes. I have a question regarding the terminology that you used. You talk about storage of LRM.

Does that also mean it's disposal of LRM or do you sometime in the future you think that material can be used for some purpose?

MR. MESSINA: Well, we have -- you know, I think there's something there we're going to have to dive into in written comments after today. But we will address that specifically.

DR. RAO: Thank you.

MR. ALEXANDROU: And, Randi, the rooms typically when we give the size parameters --

MR. WILLE: They're in my pre-filed testimony, but a typical mine out room is 50 foot wide, 50 foot deep, and 50 foot high in this mine.

MR. ALEXANDROU: Thanks.

MR. WILLE: Subject to variances.

HEARING OFFICER PAULEY: A clarification. When you said something about if there's an additional five feet it would add 20 years of life expectancy.

Is that like using half of that 10 foot space at the top or what does that mean?

MR. WILLE: Yes. So it was calculated at 129 years if we left 10 feet at the top of each room. But if we decrease that to 5 feet at the top of each room, you would find 20 more years of storage.

MR. SAN-DIEGO: As a follow up. So when you're defining a room, is that the space in between four pillars?

MR. WILLE: Yes.

MR. ALEXANDROU: Across three potential levels ultimately, correct?

MR. WILLE: Two levels for sure, which is what we're proposing here. And then we would be mining level 3 underneath.

MR. ALEXANDROU: Right.

MR. WILLE: There would potentially be a third level.

MR. SAN-DIEGO: And so this LRM will be dry stacked in various increments?

MR. WILLE: Yes. And it probably wouldn't be compacted right away, because I think if you just dumped it out, you'd probably get more evaporative over the surface area. I'd say a couple years later when you go to put the second level on, that's probably when you'd go right on top of it and flatten it out to dump on top.

That's why I said may be longer term you couldn't even convey it to reach higher as opposed to taking an end loader up a ramp.

MR. SAN-DIEGO: So from I guess just as a hypothetical example. If you have a segment of the mine that you're going to fill with LRM, sequentially is it from the end up to the more entrance?

MR. WILLE: I would say you'd go to the back of the mine and work your way to the north in this case.

HEARING OFFICER PAULEY: Just this is more out of my own curiosity. If you were going to go a third level below, is that added weight from the LRM impact?

MR. WILLE: No.

HEARING OFFICER PAULEY: Okay.

MR. WILLE: Right now there's already 200 to 250 feet of earth on top of the underground mine. So the

way it's been engineered for these lumen pillars is to support everything above it.

MR. ALEXANDROU: But the floors are also significant width, right, between levels?

MR. WILLE: Yeah, there's a sill of about 25 to 30 feet between each level of the mine.

MR. ALEXANDROU: And that's solid rock?

MR. WILLE: It's all rock.

MS. TIN: Is the compaction -- the reason you wait for the compaction is to allow more of the process where the material is dewatered?

MR. WILLE: As much as we can. We're not anticipating any moisture problems whatsoever, but we just improve our odds by keeping it maybe in a loose fill for as long we can before we actually would compact it to put another lift on it.

MS. TIN: Is there any thoughts about tilling the mine to bring in the --

MR. WILLE: If there would maybe be an issue. I mean, right now like you said, you could see the material here, we're really not anticipating a lot of water problems at all.

MS. TIN: I was wondering if any pick up of moisture while inside the mine?

MR. WILLE: The mine is very dry down underground. I don't know if I'll get to that here, but we do have sumps down there. There is groundwater seepage actually at the entrance of the mine. As you drive down below there's seepage that comes in and we catch that in the sumps.

But once you get down to the floor of the rock, the next level of water I think is 300 feet below the bottom of our mine. That's like a St. Peter's sandstone thing. So it's a lot of surface stuff before you even get to the LRM placement facility that we discharge.

MR. ALEXANDROU: And I think the beauty of this proposal versus what we had done at the beginning was the flexibility or the skilled labor down in the mine to be able to most effectively and efficiently move the material as needed to maximize the area versus the other closed system which was just sort of injecting and letting nature and gravity take its course.

MR. SAN-DIEGO: You comment on the stability I guess benefit of the utilizing LRM to fill these cavities.

MR. WILLE: I'm not an engineer, but we do have a

senior mine engineer who I will definitely ask him his opinion and get back to you before the next hearing.

MR. SAN-DIEGO: Okay. And you mentioned that you will still have that five to ten feet between the top of the last layer of LRM and the roof.

Is that -- you comment on that design or as opposed to filling it all the way up?

MR. WILLE: I guess that was something our engineers -- not knowing until they get to that point, don't know, we want to say 100 percent that they could stack it all the way to the roof. I'm sure they would try to as far as we could for stabilization purposes.

MR. SAN-DIEGO: Thank you. Question 18.

MR. WILLE: That's Randi Wille again. It would take many decades to complete the filling on levels one and two on the City of Aurora's south portion of the mine.

Holcim's portion of the underground mine would likely be developed for a different land use benefit, but it's too soon to determine that at this time. The entire capacity of the south mine is planned to be used to the extent practical. It is

not expected that upper few feet of each level can be filled effectively.

MR. SAN-DIEGO: Thank you.

HEARING OFFICER PAULEY: That wraps up the agency questions. Are we good to move to the Board questions?

DR. RAO: Did he answer question 19, or is that tabled for comments?

HEARING OFFICER PAULEY: Sorry. 19 and 20 were tabled for providing answers.

DR. RAO: Okay.

HEARING OFFICER PAULEY: Is there anyone else that has questions before we move to the Board's questions?

MR. SAN-DIEGO: Just one. Any other cities in Illinois that you're anticipating that will take advantage of this rule, utilizing this rule?

MR. WILLE: I think that's a question that's coming.

MR. MESSINA: Yeah, I probably shouldn't be in a position to testify to his point. But although it is a question, so we will address that too, Mr. San-Diego.

MR. SAN-DIEGO: Thank you.

HEARING OFFICER PAULEY: So I will be going through the Board's questions and just numbering them as well. So as far as general questions, number one.

MR. WILLE: This would be Randi Wille. We will submit a map into the record in our post-hearing comments before the second hearing.

HEARING OFFICER PAULEY: And number 2A.

MR. WILLE: 2A is Randi Wille. Approximately 8 to 10 underground mines exist in Illinois right now. Underground limestone.

HEARING OFFICER PAULEY: And 2B.

MR. WILLE: 2B is Randi Wille. There is currently no mechanism to permanently place LRM into an underground limestone mine as proposed in this rulemaking. I am not aware how many of these facilities plan to accept LRM in the future under the proposed rules if adopted.

DR. RAO: Was there any particular reason for proposing a statewide rule instead of a site specific rule applicable to the City and Holcim?

MR. MESSINA: I think that's information, Mr. Rao, that we'll have to address. But I think I can provide that information in written comments.

DR. RAO: Okay.

MR. MESSINA: And also the statute itself is general in its applicable too.

DR. RAO: Mr. Wille, do you know how other water treatment plants are handling the lime residual material, is it just land application or are there land fills?

MR. LEIBLE: Robert Leible. I can address that. I know that one of our neighboring utilities, Elgin, Illinois, they have a similar treatment process where they're softening the lime and producing a residual material like this, and they are removing it in the same manner through land application or land fill. I think that's pretty common for lime, lime user water treatment plants.

DR. RAO: Thank you.

HEARING OFFICER PAULEY: I think we're on 3A.

MR. WILLE: 3A is Randi Wille. Yes, the proposed rules apply to LRM generated by a municipality that is placed in an underground limestone mine located in whole or in part within the same municipality that operates the municipality consistent with Section 22.63 of the act.

DR. RAO: So the act itself limits where LRM can be placed, it has to be within the mine within the

municipality?

MR. WILLE: Correct. Yes, that's correct.

DR. RAO: So if any other municipality dealing with lime wants to place LRM in the mine, they need to have a mine within the municipality?

MR. MESSINA: In whole or in part within the municipality.

DR. RAO: Is there any legislative background for why they did that? Or are you aware of municipalities like Aurora which are -- which have mines located within municipalities that could make use of this general rule?

MR. MESSINA: Well, again --

DR. RAO: Just curious.

MR. MESSINA: I mean, I think I've noted that we need to kind of flush that out for you, Mr. Rao, with some additional context or understanding of what we believe may be happening elsewhere or might happen elsewhere. But we'll address that.

DR. RAO: Okay. Appreciate that.

HEARING OFFICER PAULEY: Okay. 3B.

MR. WILLE: 3B is Randi Wille. Proposed Section 706.100 states that the rules are intended to implement the requirements of Section 22.63 of the

act. However, we will address in post-hearing comments submitted prior to the second hearing whether any revisions should be proposed to this section.

HEARING OFFICER PAULEY: Thank you. And now to the questions for Mr. Alexandrou. Question 4A.

MR. ALEXANDROU: Yes, the plant operates 24 hours per day, 7 days a week throughout the year.

HEARING OFFICER PAULEY: 4B.

MR. ALEXANDROU: It represents a typical blow down flow from any given cone, not all five clear cone tanks. This was relevant during the consideration of the original UIC project.

MS. TIN: Question. In light of, you know, the expansion that occurs in the Chicago suburbs, do you anticipate any increase in the amount of water that's needed, and then would you have the capacity -- in light of the expansion in the Chicago suburbs and people moving into different areas, are you anticipating any increase in water usage modifications to this plant in order to control or meet this usage?

MR. ALEXANDROU: Well, generally speaking Aurora resides approximately 50 square miles over four

different counties. We're the second largest city, we're at approximately 200,000. We still have areas of growth. We're very comfortable, and Bob can provide some specific projections.

But we are able -- for example, we have a very large, we converted a 500 acre sod farm in the south western -- or south eastern portion of Aurora into a large Del Webb development, and so we're not quite built out.

We also have been approached at times, we provide some water for North Aurora, I think we're their backup. And North Aurora is a separate suburb. And we've had inquiries from Sugar Grove. We had pitched Montgomery and I believe Oswego, but they decided to go with City of Chicago water through DuPage Water Commission.

But the plant has that capacity if we need it. And certainly from Mr. Wille's testimony the mine has plenty of capacity. And, Bob, I don't know if there's anything you want to add to that.

MR. LEIBLE: The only thing I could add to that is over the last 10 years water demand is fairly flat. It grows incrementally, but it's very slow, so consequently the lime production, LRM production

would grow incrementally too. But it's not a -- we're not going from here to here.

MR. ALEXANDROU: And I would add, we have been very successful, especially the last ten years in water conversation measures. We have ordinances that talk about watering seasonal activities.

We learned a lot from what was the worst drought year we had, that was like 2005, I believe in that arena, so we've implemented those measures as well.

HEARING OFFICER PAULEY: Question 5A.

MR. ALEXANDROU: 5A. The annual cost includes all services and means of disposal. Transportation is not billed separately. Billing is based on a web ton pricing specific to land fill or land application.

HEARING OFFICER PAULEY: 5B.

MR. ALEXANDROU: So 5B. In 2024 the total was $1,851,699. Broken out as follows the land application costs were $1,716,887.70. Land filling costs were $63,312.70, we're very consistent. And all other miscellaneous expenses are related to the operation and maintenance of the sludge lagoons. That cost was $71,500.28.

HEARING OFFICER PAULEY: Question 6A.
MR. ALEXANDROU: Yes. The traditional disposal methods referenced land filling and land application.
HEARING OFFICER PAULEY: 6B.
MR. ALEXANDROU: Sorry. If I may go back, I think I would amend the range. The question was 45 million, and I think based on the last few years it might be as high as 55 million a year over a 30-year period.
MR. LEIBLE: 55 million total.
MR. ALEXANDROU: So between 45 million total and 55 million total over a 30-year period.
HEARING OFFICER PAULEY: And just to clarify, that's for 6B.
MR. ALEXANDROU: 6B, yes, sir. Cost savings are expected -- are based on expected pricing at much lower wet ton pricing due to the distance to the mine being one and a half miles from the water treatment plant versus the current contractor who takes it a variety of distances away. Greater than one and a half.
DR. RAO: Mr. Alexandrou?
MR. ALEXANDROU: Yes, sir.
DR. RAO: With the placement of the LRM in the

Holcim mine, do you have to pay the mine a fee for placing LRM?

MR. ALEXANDROU: I'm sorry?

MR. WILLE: Pay us a fee to handle the LRM.

MR. ALEXANDROU: That's correct, that's built into the total fee, yes.

DR. RAO: How much would that be?

MR. WILLE: Currently? It's probably adjusted for inflation, it's probably $22.00 a ton right now. We have an agreement in place subject to permitting.

DR. RAO: I was just wondering how you -- when you calculate the savings, would that be accounted for?

MR. ALEXANDROU: Yes, it would be.

DR. RAO: Okay. Thank you.

MR. ALEXANDROU: You're welcome.

HEARING OFFICER PAULEY: And we'll move to the questions for Mr. Leible. Question 7.

MR. LEIBLE: LRM is pre-dominantly calcium carbonate. When the chemical that is used in the water treatment chemical softening process was mined from the earth as previously indicated, it was calcium carbonate.

HEARING OFFICER PAULEY: And question 8A.

MR. LEIBLE: A contract is in place for hauling and disposal of lime sludge. The contract provides agronomy services and coordinates land application efforts with agreeable landowners.

HEARING OFFICER PAULEY: And 8B.

MR. LEIBLE: The LRM is provided to landowners at no cost.

HEARING OFFICER PAULEY: All right. 9A.

MR. LEIBLE: I would refer back to Mr. Alexandrou's answer to question 5B. The current unit price is $41.89 per wet ton per land application. The unit price is $63,75 per wet ton for land filling.

HEARING OFFICER PAULEY: 9B.

MR. LEIBLE: I would refer back to the cost referenced in Mr. Alexandrou's answer to question 5B.

HEARING OFFICER PAULEY: And question 10.

MR. LEIBLE: We have gathered the reports from the most recent two years and will be submitting them into the record in our post-hearing comments before the second hearing.

To go back to your earlier question. The dry tonnage is in those reports.

MS. TIN: Thank you.

MR. LEIBLE: Okay.
HEARING OFFICER PAULEY: Question 11.
MR. LEIBLE: We do not have electronic copies of these reports, so it will take some time to make copies and we will endeavor to submit these into the record into our post-hearing comments before the second hearing.
HEARING OFFICER PAULEY: 12A.
MR. LEIBLE: Any environmental condition as indicated in the land application permit that prohibits land application, including weather conditions. For example, the land application permit prohibits land application during precipitation and prohibits land application to sites which are saturated or ponded with water or that are covered with ice or snow during such circumstances. If the water production division has a need for disposal, land filling would be utilized.
HEARING OFFICER PAULEY: 12B.
MR. LEIBLE: Storage is maintained during winter conditions.
HEARING OFFICER PAULEY: 13A.
MR. LEIBLE: We will submit these into the record in our post-hearing comments before the second

hearing.

HEARING OFFICER PAULEY: 12B. Sorry. 13B.

MR. LEIBLE: We will submit those into the record in our post-hearing comments before the second hearing.

HEARING OFFICER PAULEY: 13C.

MR. LEIBLE: Samples are analyzed by certified commercial laboratories following the specific methods for any given parameter.

MS. TIN: Follow-up on that question.

Usually when you do an analysis, you have an analysis and then there's a detection limit that's right next to that?

MR. LEIBLE: That's correct.

MS. TIN: So you're saying you're going to include that detection limit?

MR. LEIBLE: They're in all of these reports that we'll submit, yes.

MS. TIN: Because sometimes you'll see the reports of that.

MR. LEIBLE: Yeah. Yeah, the detection -- its nomenclature in an environmental lab, reporting limit, detection limit.

MR. MANKOWSKI: I have one follow-up question

about some earlier testimony.

Do you sample each one of the lagoons annually or --

MR. LEIBLE: We sample the one that is in the best state of dryness, typically pull that sample.

MR. MANKOWSKI: Have you noticed over the years any difference between the lagoons, the LRM, does it change from lagoon to lagoon?

MR. LEIBLE: Not generally, because it's calcium carbonate. You know, it can vary depending on what blend of river water or groundwater that we're using at any given time, but the overall composition is pretty consistent.

HEARING OFFICER PAULEY: All right. Now we'll move to the questions for Mr. Wille. Number 14.

MR. WILLE: Yes. They are interchangeable with some clarification. Transporting LRM through the, quote, unquote, site does not define the final location for permanent placement of the LRM with specificity. The LRM placement would occur within a specified area of the underground limestone mine. Under the proposed rules, this area is referred to as the quote, unquote, facility.

MR. SAN-DIEGO: Can I ask a follow-up question?

So each room is going to be considered a facility, is that what you said? I'm sorry.

MR. MESSINA: I don't think that that was the gist of his response to that question. That's just -- but I can understand why you're asking. So we'll have to think about how to provide an answer with some clarity to that.

MR. SAN-DIEGO: And I apologize, I may have misheard.

HEARING OFFICER PAULEY: 15A.

MR. WILLE: The height of each room upon completion of mining is 50 feet.

HEARING OFFICER PAULEY: 15B.

MR. WILLE: Assuming we place 35,000 tons in five foot lifts, the volume would occupy 28 to 29 rooms per year.

HEARING OFFICER PAULEY: 15C.

MR. WILLE: We expect that the main fans which can be operated using this depositional method will aid in the drying of the materials by evaporation. If drainage of the materials starts to pool within the mine where continued operation could be difficult, we may pump the water towards our sumps.

HEARING OFFICER PAULEY: Follow-up question.

When you say the main fans, is that just for primarily air circulation for safety?

MR. WILLE: Yes, there's continuous ventilation from a series of fans to allow for the workers.

HEARING OFFICER PAULEY: Mr. Rao.

DR. RAO. Yes. You mentioned that if there is water accumulating, if an operation is not efficient to remove everything, you know, the water coming out of the LRM may be directed -- the water will be directed to sumps.

Are these -- you know, can you describe these sumps and how you handle water that's collected in the sumps?

MR. WILLE: Depth, just like a sump pump in your basement of your home, we have sumps. In the underground portions of the mine basically when the ramp goes down, I think I had mentioned there's groundwater seepage in the walls as you travel down the decline. When you get down to the bottom of the mine it's pretty dry, but we do collect water that seeps in through the rock. Periodically it's a trickle, but it falls into little sumps that we create with pumps on them and we pump it up to the surface. That's all part of our NPDES program.

DR. RAO: Okay.

MR. WILLE: If you ran into an extreme case where we had water that we didn't like, it was in our way of disrupting our mining or where it was pocketing, we could easily pump it down to a sump and take it out of the mine. It's not -- it's a very extreme case that we would have that.

DR. RAO: Thank you.

HEARING OFFICER PAULEY: 15D.

MR. WILLE: Yes. We encounter groundwater seepage along the excess decline and it is collected in sumps underground and pumped to the surface. Where the mine has encountered groundwater from within the underground mine floor, the operation has collected the water for use with its water trip as part of our dust control program or allow the water to evaporate over time.

Surface waters are collected and discharged to the creek along the eastern boundary of our property under a NPDES permit issued by the Illinois EPA.

As to the discharge limits, we will include a copy of the mine's NPDES permit in our post-hearing comments.

MR. MANKOWSKI: Just a follow up. That NPDES permit, that's for its surface water like from precipitation from the surface, is that correct?

MR. WILLE: It's for anywhere within the mine that when we discharge it, whether we pump it up or if we collect it on the surface, there's actually a thickener building that we take all the water to which takes all the turbidity out of it, and then it goes through a series of two more ponds to settle where it's discharged.

MR. MANKOWSKI: Okay. So I think I was trying to get at. The water from below could be commingled with other water at the top?

MR. WILLE: Yes.

MR. MANKOWSKI: Okay.

HEARING OFFICER PAULEY: 15E.

MR. WILLE: We believe there's no need for any groundwater monitoring. LRM is a semi solid material and the likelihood of seepage or migration is very low.

The UIC permit issued to the City did not require groundwater monitoring. The Illinois EPA approved a request for a waiver from the groundwater monitoring requirements.

The LRM that we would be placing into the mine under the proposed rules is much dryer than the LRM that would have been injected under the UIC permit. Any potential discharge from the mine will continue to be monitored as required per the site's NPDES permit.

MS. TIN: Follow-up question.

If there was some groundwater and you sampled it, how would you know whether it came from the LRM or whether it came from part of this mining process -- if you sample groundwater and you are thinking about groundwater monitoring, how would you know that the analysis show that it came from the LRM or did it come from the normal mining populations?

MR. WILLE: Where the LRM placement facility would be located is so far away from where active mining is either on that level or at different levels, we would know any leaching or migrational water to come out of the LRM to be excavated.

HEARING OFFICER PAULEY: All right. I think we're on 16A.

MR. WILLE: 16A. The cover over the drop shaft is not intended to be a permanent roof structure, but instead a removable cover directly over the shaft to

allow dumping while in use. When the shaft is not in use, the removable cover would be placed and secured over the shaft.

DR. RAO: So it could be like an oversized manhole cover or something like that?

MR. WILLE: Yes, a six foot diameter dump shaft, but yes, it would be raised above the pavement to make sure that nothing could sheet flow in, and then the lid would be an oversized manhole cover six feet in diameter.

DR. RAO: Thank you.

HEARING OFFICER PAULEY: 16B.

MR. WILLE: We are gathering these documents and will submit them with other post-hearing comments ahead of the second hearing.

HEARING OFFICER PAULEY: 17A.

MR. WILLE: The average monthly truck load count is approximately 132 loads depending on the size of the lagoon. The amount of truck loads will vary on a daily and weekly basis.

HEARING OFFICER PAULEY: 17B.

MR. WILLE: We will travel approximately one and a half miles along Illinois Route 25 from the water treatment plant to the drop shaft at the mine. This

is the shortest route from the water treatment plant to the location of the proposed drop shaft at the mine.

Illinois Route 25 is a truck route, and to our knowledge there are mostly industrial sources along this route. The route begins in an Environmental Justice area at the water treatment plant, but the drop shaft location at the mine is not located in the Environmental Justice area.

We will submit a map showing the proposed delivery route in other post-hearing comments prior to the second hearing.

HEARING OFFICER PAULEY: Question 17C.

MR. WILLE: No, I do not anticipate any community concerns regarding traffic, dust, noise from the proposed LRM transportation.

MS. TIN: Follow-up question on that.

Do you anticipate any communers showing up to the next hearing in Aurora?

MR. WILLE: To offer my personal opinion, I do not. And we are already hauling this material pretty much right past our front gate when they want to go to a land fill or land application, so all they're doing is turning right after a mile and a half.

Traffic is already there.

MR. ALEXANDROU: And I could tell you that over the years this has been discussed publically, legislated before our city council through our various community process. It's always received a very favorable response, mostly because of the innovative and efficient way that we're proposing to do this, especially when we're talking about the effect on taxpayer and rate payer's water rates over the years.

So it's been very well received, so we don't anticipate much of an opposition or people coming. But it would be -- you know, as we said, we already have the agreement in place that was approved by city council publicly and received very favorably.

HEARING OFFICER PAULEY: And can I ask. You referenced, Alex, further away the building application was currently being done according to the proposal.

What's maybe like the average or longest distance that that's kind of going right now?

MR. ALEXANDROU: So we are in Kane County, both the agronomy company that works for us, land applies most of this material in say LaSalle County, and

they're taking it outside of Kane County, so it's dozens of miles away.

HEARING OFFICER PAULEY: Okay.

MR. ALEXANDROU: And we've had instances over the years where based on fuel prices, labor costs they would incur, we have seen significant increases over the years because of where they haul it. Plus whatever demand they're able to create needn't go beyond LaSalle County. You know, it's really up to them.

HEARING OFFICER PAULEY: The land fills are even further away?

MR. ALEXANDROU: Yes.

HEARING OFFICER PAULEY: I think that that brings us to the questions on the proposed rule language.

MR. MESSINA: Correct.

HEARING OFFICER PAULEY: So I think questions 1 through 33, I believe that's right.

MR. MESSINA: Yes. 1 through 33 we will address all of those in written comments.

HEARING OFFICER PAULEY: Okay. So that brings us to the end of the Board questions.

For the record, does anyone else have further questions for the proponents at this time?

MS. TIN: I have one. Sorry. You get this raw material from Missouri. Why can you not get it from your own mines? And I think that Mr. San-Diego might has asked that question.

MR. LEIBLE: Well, not all limestone is created equal. The material that we get from Mississippi mine is the highest quality material basically that's available for water treatments in the Midwest, so that's what we use.

A lot of limestone mines, the material is substandard and it's not used in water treatment. It doesn't produce the same percentage of active calcium carbonate, calcium oxide that we seek.

MR. ALEXANDROU: With all due respect to our partner at Holcim.

MR. LEIBLE: Substandard is a relative term.

MR. WILLE: And we have multiple sites in the Chicagoland market, and some we can tell are aggregates for asphalt and concrete, and other ones it's not good enough, but we use it. So it's different qualities, different chemical characteristics.

MR. ALEXANDROU: And we're a multiple time award winning based facility, and I'm very proud of the

team that we have assembled over the last 25 years. And Bob does an outstanding job with his team.

HEARING OFFICER PAULEY: Thank you. We now move to public comments.

I see there's no one in the Springfield office that signed up.

DR. RAO: None here either.

HEARING OFFICER PAULEY: Seeing none in the Chicago office either, let me take a moment to address the issue of an economic impact statement.

Section 27-B of the Environmental Protection Act provides that the Board must request the Department of Commerce and Economic Opportunity or DCEO to conduct an economic impact study of proposed rules before the Board adopts the rules. The Board must make either the economic impact study or the Department's explanation for not conducting one available to the public at least 20 days before a public hearing.

In a letter dated February 20th, 2025, the Board's chair Barbara Lynn Currie requested that DCEO conduct an economic impact study of this rulemaking proposal. As of today we have not received a response from the DCEO. I will raise this again at

the second hearing.

But is there anyone present today who would like to testify regarding the Board's request for a study of the DCEO? No responses right now. Thank you.

We'll go off the record for a moment to discuss filing deadlines and all that.

MR. MESSINA: Counsel, before we leave, we do have some maps that we'd like to share before the folks scatter to make sure that those would be responsive to the kinds of things that folks are looking for. So I know some of those mapping questions were the Board's. We can talk about that too. I just wanted to make sure before the folks left.

(Recess was taken.)

HEARING OFFICER PAULEY: Okay. We'll resume. Thank you. We went off the record to discuss procedural issues.

The pre-filing deadline for the June 4th, 2025 hearing is May 21st, 2025. The proponents have agreed to file responsive documents to the questions raised today on May 9th.

Copies of this transcript of the hearing are

expected to be available no later than May 1st, 2025. Promptly after the Board receives the transcript it will be posted to COOL from which it can be viewed and printed.

I do have one more question from Member Mankowski that we're going to get on the record before we adjourn.

MR. MANKOWSKI: Okay. Are there any neighboring municipalities that are above the mine footprint besides Aurora?

MR. WILLE: The entrance of our mine is the Village of North Aurora.

MR. MANKOWSKI: Okay. But there's no other municipalities?

MR. WILLE: No.

HEARING OFFICER PAULEY: And is the Village of North Aurora, is the footprint above any area that they would potentially be using this for LRM storage?

MR. WILLE: No, because that is our property.

MR. ALEXANDROU: We're exclusively south of the tollway.

MR. MANKOWSKI: Thank you.

HEARING OFFICER PAULEY: Okay. So are there any other matters that need to be addressed today on the

record?

Hearing none, I would like to thank everyone who participated today. This hearing is adjourned. Thank you.

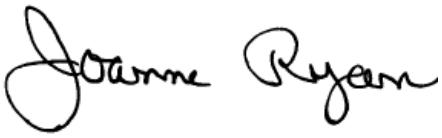
(Whereupon the proceedings adjourned at 2:48 p.m.)

STATE OF ILLINOIS)
) ss:
COUNTY OF COOK)

JOANNE RYAN, being first duly sworn, deposes and says that she is a Certified Shorthand Reporter in Cook County, Illinois, and reporting proceedings in the Courts in said County;

That she reported in shorthand and thereafter transcribed the foregoing proceedings;

That the within and foregoing transcript is true, accurate and complete and contains all the evidence which was received in the proceedings had upon the above-entitled cause.



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