

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 -
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)

Hearing before the Illinois Pollution Control Board
Transcript of Proceedings

April 17, 2025

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

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

6
7 PRESENT:

8 ATTENDING BOARD MEMBERS:

9 Michael Mankowski
10 Michelle Gibson
11 Angela Tin
12 Dr. Anand Rao
13 Essence Brown

14 BOARD STAFF:

15 Daniel Pauley, Hearing Officer

16 PROPONENTS - ATTORNEYS:

17 Dennis Walsh, Klein, Thorpe & Jenkins
18 Robert Leible, City of Aurora
19 Alex Alexandrou, City of Aurora

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

22 ILLINOIS ENVIRONMENTAL PROTECTION AGENCY:

23 Nick San-Diego

24 OFFICE Of The ILLINOIS ATTORNEY GENERAL:

 Mallory Meade

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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

1 transcript.

2 The City of Aurora and Holcim, Incorporated
3 jointly filed this rulemaking proposal with the Board
4 on February 4th, 2025. In March 2025 there was
5 published for this hearing in papers circulated in
6 the Aurora, Springfield and Chicago areas. On March
7 21st, 2025 the hearing officer directed participants
8 intending to testify at this hearing to pre-file
9 their testimony by April 3rd.

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

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

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

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

17 (No response.)

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

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

1 MR. WILLE: Randi Wille. I do.

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

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

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

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

12 MR. WALSH: The City of Aurora would.

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

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

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

1 process lime residual material or LRM.

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

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

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

24 To support the record in this matter, the

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

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

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

24 Thank you for your time and consideration.

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

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

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

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

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

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

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

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

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

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

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

22 (Recess was taken.)

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

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

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

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

11 ALEX ALEXANDROU,
12 called as a witness herein, having been first duly
13 sworn, was examined upon oral interrogatories and
14 testified as follows:

15 EXAMINATION

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

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

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

24 The appropriate machinery aspect of that

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

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

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

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

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

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

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

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

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

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

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

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

1 the Illinois Environmental Protection Act.

2 MS. MEADE: Thank you.

3 MR. ALEXANDROU: You're welcome.

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

6 HEARING OFFICER PAULEY: Go ahead, Mr. Rao.

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

9 What will the moisture content be of the
10 dewatered LRM?

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

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

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

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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.

1 MS. MEADE: All right. Number 2.

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

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

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

11 MS. TIN: So it can be scooped out?

12 MR. LEIBLE: Correct.

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

18 MR. LEIBLE: Correct.

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

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

24 MR. LEIBLE: Yes. We routinely measure the

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

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

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

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

15 DR. RAO: Okay.

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

18 MR. LEIBLE: Yes.

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

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

22 DR. RAO: Okay. Thank you.

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

1 MS. MEADE: Question 2 for Mr Leible.

2 MR. LEIBLE: Calcium carbonate is approximately
3 89 percent of the solid portion with magnesium
4 precipitate approximately 4 and a half percent.

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

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

16 HEARING OFFICER PAULEY: We have a question.

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

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

1 MS. TIN: And you measure that PH at that point?

2 MR. LEIBLE: Well, we don't measure that
3 regularly, but it's tested in our analytical -- in
4 our annual testing.

5 MS. TIN: And the reason I ask is because you
6 said that the PH is important to retract the
7 leachate.

8 MR. LEIBLE: Correct.

9 MS. TIN: So I was wondering if there was a good
10 PH you're trying to shoot for the byproduct.

11 MR. LEIBLE: No. I mean, again it's a waste
12 product, so we're not shooting for anything. It's
13 just the end result of water treatment in a softened
14 process. It's the precipitated material from that.

15 MS. TIN: Thank you.

16 MS. MEADE: Question 3 for Mr. Leible.

17 MR. LEIBLE: We will be submitting an analytic
18 report in our post-hearing comments that has more
19 details on the composition of the LRM. The toxicity
20 characteristic leaching procedure, TCLP is a method
21 used to determine if a waste is characteristically
22 hazardous.

23 LRM material does not leach any regulated
24 TCLP contaminants into the environment based on this

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

3 MS. MEADE: Question 4 for Mr. Leible.

4 MR. LEIBLE: The answer is yes.

5 MS. MEADE: And 4A?

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

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

16 MS. MEADE: Question 4B?

17 MR. LEIBLE: I have the current compliance levels
18 as a separate document, which we will submit in
19 post-hearing comments prior to the second hearing. I
20 am not aware of whether the compliance levels have
21 been changed since the last update to test method
22 1311.

23 MS. MEADE: And question 4C.

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

1 show no exceedance of classic groundwater standards.

2 MS. MEADE: And finally question 4D.

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

8 MS. MEADE: And question 5A.

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

14 MS. MEADE: And question 5B.

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

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

23 RANDI WILLE,
24 called as a witness herein, having been first duly

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

3 EXAMINATION

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

7 MR. WILLE: In regard to appropriate machinery?

8 MS. MEADE: Right.

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

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

22 MS. MEADE: And question number one.

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

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

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

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

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

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

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

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

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

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

11 DR. RAO: Okay. Thank you.

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

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

18 MR. WILLE: To the best of my knowledge, the area
19 where we had it once was on the other side of the
20 mine. And again, you're talking about a mine that is
21 168 acres from the north, south, east and west. So
22 it was localized, very local and it went away.

23 MR. MANKOWSKI: Okay. Thank you.

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

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

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

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

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

22 MR. SAN-DIEGO: Thank you.

23 MS. MEADE: And question number 2.

24 MR. WILLE: As to frequency of transporting LRM.

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

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

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

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

23 HEARING OFFICER PAULEY: Mr. Leible.

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

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

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

8 MS. MEADE: Question number 3.

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

13 MS. MEADE: And question number 4.

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

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

1 conditions of its authorization, end quote.

2 The remainder of the proposed rules contain
3 numerous requirements that a person must meet. It
4 was the proponent's intent that the proposed rules if
5 adopted by the Board would be enforceable via Section
6 31 of the Illinois Protection Act.

7 MS. MEADE: Thank you. No further questions.

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

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

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

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

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

5 MR. SAN-DIEGO: Question 4.

6 MR. WILLE: Randi Wille, I'll address Question 4.

7 Access roads on site are paved solid rock or
8 compacted fill. A concrete pad will be constructed
9 at the dump site to guide the trucks and contain any
10 potential spillage. The shaft will be covered and
11 secured when not in use, but would be uncovered when
12 material is being dumped through the shaft.

13 MR. SAN-DIEGO: Question 4B.

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

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

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

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

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

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

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

16 MR. WILLE: Yes, sir, MSHA.

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

21 MR. WILLE: I would expect that they would.

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

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

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

4 DR. RAO: Thank you.

5 MR. SAN-DIEGO: And question 5.

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

11 Proposed Section 706.720 contains
12 operational standards for the placement of LRM into
13 the mine, including proposed Subsection 0 that
14 states, quote, the operator shall ensure the
15 integrity of the mine prior to, during and after
16 placement of LRM in the mine, end quote.

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

22 We will further assess whether any cross
23 reference or incorporation by reference to Section
24 22.36 of the act is appropriate in our post-hearing

1 comments to be submitted prior to the second hearing.

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

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

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

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

15 Though will you be proposing those for part
16 706?

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

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

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

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

10 Just to expound upon that. We started land
11 application of lime sludge material around that time,
12 2012 to 2013 via the IEPA's land application permit.
13 So that's when regular testing and co-piling of
14 material became available.

15 MR. SAN-DIEGO: Question 6B.

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

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

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

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

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

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

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

14 MR. SAN-DIEGO: Question 7A.

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

21 MR. SAN-DIEGO: 7B.

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

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

3 MR. SAN-DIEGO: 7C.

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

10 MR. SAN-DIEGO: 7D.

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

16 MR. SAN-DIEGO: 7E.

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

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

24 MR. SAN-DIEGO: Question 8.

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

4 MR. SAN-DIEGO: Question 9A.

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

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

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

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

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

20 MR. SAN-DIEGO: Question 10.

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

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

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

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

6 MR. MESSINA: Like locations and numbers?

7 MR. SAN-DIEGO: Yes.

8 MR. MESSINA: Sure.

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

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

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

14 MR. ALEXANDROU: Got you.

15 MR. SAN-DIEGO: Question 11.

16 MR. LEIBLE: I would direct the agency to Section
17 3 of my pre-filed testimony. Other treatment
18 chemicals that are utilized in the treatment of pulp
19 processing include powder activated carbon, chlorine
20 or sodium hypochlorite for disinfection, polystyrene
21 chloride. These are all for the tasting odor
22 control, disinfection and clarification.

23 MR. SAN-DIEGO: Question 12.

24 MR. LEIBLE: Raw water is not required to be

1 tested.

2 MR. SAN-DIEGO: Question 13.

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

6 MR. SAN-DIEGO: 13, sir.

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

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

19 MR. SAN-DIEGO: Question 14.

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

24 MR. SAN-DIEGO: Question 15.

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

3 MR. SAN-DIEGO: Question 16.

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

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

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

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

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

16 MR. SAN-DIEGO: Question 17.

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

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

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

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

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

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

18 DR. RAO: Thank you.

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

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

24 MR. ALEXANDROU: Thanks.

1 MR. WILLE: Subject to variances.

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

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

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

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

14 MR. WILLE: Yes.

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

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

20 MR. ALEXANDROU: Right.

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

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

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

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

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

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

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

21 MR. WILLE: No.

22 HEARING OFFICER PAULEY: Okay.

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

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

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

5 MR. WILLE: Yeah, there's a sill of about 25 to
6 30 feet between each level of the mine.

7 MR. ALEXANDROU: And that's solid rock?

8 MR. WILLE: It's all rock.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

3 MR. SAN-DIEGO: Thank you.

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

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

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

11 DR. RAO: Okay.

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

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

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

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

24 MR. SAN-DIEGO: Thank you.

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

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

7 HEARING OFFICER PAULEY: And number 2A.

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

11 HEARING OFFICER PAULEY: And 2B.

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

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

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

24 DR. RAO: Okay.

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

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

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

15 DR. RAO: Thank you.

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

17 MR. WILLE: 3A is Randi Wille. Yes, the proposed
18 rules apply to LRM generated by a municipality that
19 is placed in an underground limestone mine located in
20 whole or in part within the same municipality that
21 operates the municipality consistent with Section
22 22.63 of the act.

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

1 municipality?

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

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

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

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

13 MR. MESSINA: Well, again --

14 DR. RAO: Just curious.

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

20 DR. RAO: Okay. Appreciate that.

21 HEARING OFFICER PAULEY: Okay. 3B.

22 MR. WILLE: 3B is Randi Wille. Proposed Section
23 706.100 states that the rules are intended to
24 implement the requirements of Section 22.63 of the

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

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

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

9 HEARING OFFICER PAULEY: 4B.

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

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

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

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

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

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

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

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

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

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

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

11 HEARING OFFICER PAULEY: Question 5A.

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

17 HEARING OFFICER PAULEY: 5B.

18 MR. ALEXANDROU: So 5B. In 2024 the total was
19 \$1,851,699. Broken out as follows the land
20 application costs were \$1,716,887.70. Land filling
21 costs were \$63,312.70, we're very consistent. And
22 all other miscellaneous expenses are related to the
23 operation and maintenance of the sludge lagoons.
24 That cost was \$71,500.28.

1 HEARING OFFICER PAULEY: Question 6A.

2 MR. ALEXANDROU: Yes. The traditional disposal
3 methods referenced land filling and land application.

4 HEARING OFFICER PAULEY: 6B.

5 MR. ALEXANDROU: Sorry. If I may go back, I
6 think I would amend the range. The question was
7 45 million, and I think based on the last few years
8 it might be as high as 55 million a year over a
9 30-year period.

10 MR. LEIBLE: 55 million total.

11 MR. ALEXANDROU: So between 45 million total and
12 55 million total over a 30-year period.

13 HEARING OFFICER PAULEY: And just to clarify,
14 that's for 6B.

15 MR. ALEXANDROU: 6B, yes, sir. Cost savings are
16 expected -- are based on expected pricing at much
17 lower wet ton pricing due to the distance to the mine
18 being one and a half miles from the water treatment
19 plant versus the current contractor who takes it a
20 variety of distances away. Greater than one and a
21 half.

22 DR. RAO: Mr. Alexandrou?

23 MR. ALEXANDROU: Yes, sir.

24 DR. RAO: With the placement of the LRM in the

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

3 MR. ALEXANDROU: I'm sorry?

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

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

7 DR. RAO: How much would that be?

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

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

14 MR. ALEXANDROU: Yes, it would be.

15 DR. RAO: Okay. Thank you.

16 MR. ALEXANDROU: You're welcome.

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

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

24 HEARING OFFICER PAULEY: And question 8A.

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

5 HEARING OFFICER PAULEY: And 8B.

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

8 HEARING OFFICER PAULEY: All right. 9A.

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

14 HEARING OFFICER PAULEY: 9B.

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

17 HEARING OFFICER PAULEY: And question 10.

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

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

24 MS. TIN: Thank you.

1 MR. LEIBLE: Okay.

2 HEARING OFFICER PAULEY: Question 11.

3 MR. LEIBLE: We do not have electronic copies of
4 these reports, so it will take some time to make
5 copies and we will endeavor to submit these into the
6 record into our post-hearing comments before the
7 second hearing.

8 HEARING OFFICER PAULEY: 12A.

9 MR. LEIBLE: Any environmental condition as
10 indicated in the land application permit that
11 prohibits land application, including weather
12 conditions. For example, the land application permit
13 prohibits land application during precipitation and
14 prohibits land application to sites which are
15 saturated or ponded with water or that are covered
16 with ice or snow during such circumstances. If the
17 water production division has a need for disposal,
18 land filling would be utilized.

19 HEARING OFFICER PAULEY: 12B.

20 MR. LEIBLE: Storage is maintained during winter
21 conditions.

22 HEARING OFFICER PAULEY: 13A.

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

1 hearing.

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

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

6 HEARING OFFICER PAULEY: 13C.

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

10 MS. TIN: Follow-up on that question.

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

14 MR. LEIBLE: That's correct.

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

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

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

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

24 MR. MANKOWSKI: I have one follow-up question

1 about some earlier testimony.

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

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

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

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

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

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

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

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

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

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

10 HEARING OFFICER PAULEY: 15A.

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

13 HEARING OFFICER PAULEY: 15B.

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

17 HEARING OFFICER PAULEY: 15C.

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

24 HEARING OFFICER PAULEY: Follow-up question.

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

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

5 HEARING OFFICER PAULEY: Mr. Rao.

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

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

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

1 DR. RAO: Okay.

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

8 DR. RAO: Thank you.

9 HEARING OFFICER PAULEY: 15D.

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

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

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

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

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

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

14 MR. WILLE: Yes.

15 MR. MANKOWSKI: Okay.

16 HEARING OFFICER PAULEY: 15E.

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

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

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

7 MS. TIN: Follow-up question.

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

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

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

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

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

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

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

11 DR. RAO: Thank you.

12 HEARING OFFICER PAULEY: 16B.

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

16 HEARING OFFICER PAULEY: 17A.

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

21 HEARING OFFICER PAULEY: 17B.

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

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

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

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

13 HEARING OFFICER PAULEY: Question 17C.

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

17 MS. TIN: Follow-up question on that.

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

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

1 Traffic is already there.

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

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

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

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

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

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

3 HEARING OFFICER PAULEY: Okay.

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

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

13 MR. ALEXANDROU: Yes.

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

16 MR. MESSINA: Correct.

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

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

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

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

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

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

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

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

16 MR. LEIBLE: Substandard is a relative term.

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

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

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

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

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

7 DR. RAO: None here either.

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

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

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

1 the second hearing.

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

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

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

16 (Recess was taken.)

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

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

24 Copies of this transcript of the hearing are

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

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

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

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

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

15 MR. WILLE: No.

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

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

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

22 MR. MANKOWSKI: Thank you.

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

1 record?

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

5 (Whereupon the proceedings adjourned
6 at 2:48 p.m.)
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1 STATE OF ILLINOIS)

) ss:

2 COUNTY OF COOK)

3 JOANNE RYAN, being first duly sworn,
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