Standards for the Disposal
for the Disposal
of Coal Combustion
Residuals in Surface )
Impoundments: Proposed new ) 35 Ill. Adm. Code 845 )

REPORT OF THE PROCEEDINGS held in the above entitled cause before Hearing Officer Vanessa Horton, called by the Illinois Pollution Control Board, taken by Pamela L. Cosentino, Certified Shorthand Reporter for the State of Illinois, at James R. Thompson Center, 100 West Randolph Street, Room 9-040, Chicago, Illinois, on the 30th day of September, 2020, commencing at the hour of 9:00 a.m.

A P P E A R A N C E S:
MR. VANESSA HORTON, Hearing Officer
MS. BARBARA FLYNN CURRIE, Chairwoman (via video)
MS. MARIE TIPSORD, General Counsel
MEMBER ANASTASIA PALIVOS (via video)
MEMBER CYNTHIA SANTOS (via video)
MEMBER JENNIFER VAN WIE (via video)
MR. ANAND RAO, Technical Unit (via video)
MS. ESSENCE BROWN, Technical Unit (via video)

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, By
MS. CHRISTINE M. ZEIVEL (via video)
MS. STEPHANIE DIERS (via video)
1021 North Grand Avenue East
PO Box 19276
Springfield, Illinois 62794
(217) 782-5544
christine.zeivel@illinois.gov
stephanie.diers@illinois.gov
Appeared on behalf of the Illinois Environmental Protection Agency;

SCHIFF HARDIN, By
MR. JOSHUA R. MORE
MR. RYAN C. GRANHOLM
233 South Wacker Drive, Suite 6600
Chicago, Illinois 60606
(312) 258-5500
jmore@schiffhardin.com
rgranholm@schiffhardin.com
Appeared on behalf of Dynegy;

NIJMAN \& FRANZETTI, LLP, By
MS. KRISTEN GALE (via video)
10 South LaSalle Street, Suite 3600
Chicago, Illinois 60603
(312) 262-5524
kg@nijmanfranzetti.com
Appeared on behalf of Midwest Generation;
L.A. Court Reporters, L.L.C.

A P P E A R A N C E S: (CONT'D)
CITY OF SPRINGFIELD, By
MS. DEBORAH J. WILLIAMS (via video)
800 East Monroe Street, 4th Floor
Springfield, Illinois 62757
(217) 789-2116
deborah.williams@cwlp.com
Appeared on behalf of City of Springfield;

OFFICE OF THE ATTORNEY GENERAL, By
MR. STEPHEN J. SYLVESTER (via video)
MR. ANDREW ARMSTRONG (via video)
69 West Washington Street, 18th Floor
Chicago, Illinois 60602
(312) 814-2087
ssylvester@atg.state.il.us
aarmstrong@atg.state.il.us
Appeared on behalf of Office of the
Attorney General;
BROWN, HAY \& STEPHENS, LLP, By
MS. CLAIRE A. MANNING (via video)
205 South Fifth Street, Suite 1000
Springfield, Illinois 62705
(217) 544-8491
cmanning@bhslaw.com
Appeared on behalf of AmerenEnergy
Medina Valley Cogen, LLC and Union
Electric Company, d/b/a Ameren Missouri;

HEPLERBROOM, LLC, By
MS. MELISSA S. BROWN (via video)
4340 Acer Grove Drive
Springfield, Illinois 62711
(217) 528-3674
melissa.brown@heplerbroom.com
Appeared on behalf of the Illinois
Environmental Regulatory Group;
L.A. Court Reporters, L.L.C.

A P P E A R A N C E S: (CONT'D)
MS. FAITH BUGEL
1004 Mohawk Road
Wilmette, Illinois 60091
(312) 282-9119
fbugel@gmail.com
-AND-
ENVIRONMENTAL LAW AND POLICY CENTER, By MS. KIANA COURTNEY (via video)
35 East Wacker Drive, Suite 1600
Chicago, Illinois 60601
(312) 673-6500
kcourtney@elpc.org
-AND-

EARTHJUSTICE, By
MS. JENNIFER CASSEL (via video)
311 South Wacker Drive, Suite 1400
Chicago, Illinois 60606
(800) 584-6460
jcassel@earthjustice.org
-AND-
ENVIRONMENTAL LAW \& POLICY CENTER, By
MR. JEFFREY T. HAMMONS (via video)
1440 G Street NW
Washington DC, 20005
(785) 217-5722
jhammons@elpc.org
Appeared on behalf of Environmental Law \& Policy Center, Little Village Environmental Justice Organization, Earthjustice/Prairie Rivers Network, and Sierra Club;

MS. JO LAKOTA
MR. MARK ROKOFF
MS. SHARENE SHEALEY
MR. RICHARD GNAT
MR. DAVID NIELSON
MR. GARY KING
MR. MICHAEL WAGSTAFF
A P P EARANCES: (CONT'D)

HEARING OFFICER HORTON: Good morning, everyone. So I'm Vanessa Horton. I'm the Hearing Officer for this Rulemaking R20-19.

We are all set to go here in the Thompson Center.

And I see that our first witness, Jo Lakota, is on. Thank you. I believe everybody that would be asking questions is also on as well. So I think we will begin.

Ms. Lakota, could you hear us?
THE WITNESS: Okay.
HEARING OFFICER HORTON: Ms. Lakota, we can hear you. Can you hear us?

THE WITNESS: Yes.
HEARING OFFICER HORTON: Oh, great.
So what we're going to do now is have the court reporter swear you in. So I will leave that to our court reporter.

> (Witness duly sworn.)

HEARING OFFICER HORTON: Thank you very much.
And, Ms. Bugel, would you like to have Ms. Lakota's pre-filed testimony entered into the record?

MS. BUGEL: We can direct questions at

Ms. Courtney, who's representing Jo Lakota today. HEARING OFFICER HORTON: No problem. Ms. Courtney, would you like to have

Ms. Lakota's pre-filed testimony entered into the record as an exhibit?

MS. COURTNEY: Yes, we would.
HEARING OFFICER HORTON: Okay. That would be Exhibit 40.
(Whereupon, Exhibit No. 40 was marked for identification.)

HEARING OFFICER HORTON: And I will ask the participants if they have any follow-up questions for Ms. Lakota.

And I'll begin with Illinois EPA, Ms. Diers, any questions for this witness?

MS. DIERS: We have no questions.
HEARING OFFICER HORTON: Okay. Thank you.
Midwest Generation, Ms. Gale, any questions for this witness?

MS. GALE: We have no questions. Thank you. HEARING OFFICER HORTON: City of Springfield, Ms. Williams, any questions for this witness?

MS. WILLIAMS: No questions.
HEARING OFFICER HORTON: Thank you.

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

Dynegy, Mr. More, any questions?
MR. MORE: We have no questions.
HEARING OFFICER HORTON: Thank you.
Illinois Environmental Regulatory Group,
Ms. Brown, any questions?
MS. BROWN: We have no questions for this
witness.
HEARING OFFICER HORTON: Ameren, Ms. Manning,
any questions for this witness?
MS. MANNING: We have no questions for this witness.

HEARING OFFICER HORTON: Office for the Illinois Attorney General, Mr. Sylvester and Mr. Armstrong, any questions?

Mr. Sylvester, any questions for this
witness?
MR. SYLVESTER: No.
HEARING OFFICER HORTON: We will pass over.
And then the Pollution Control Board
Technical Unit, any questions for this witness?
MR. RAO: No questions for this witness.
Thank you.
HEARING OFFICER HORTON: Thank you.
That was Mr. Rao.

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

Okay. And with that, we'll conclude your testimony, Ms. Lakota. Thank you very much for appearing, and you are dismissed.

THE WITNESS: Thank you.
(Witness excused.)
HEARING OFFICER HORTON: We'll move on with the next witness, which is Ms. Mark Rokoff.

Mr. Rokoff, are you on the line?
THE WITNESS: I am.
HEARING OFFICER HORTON: Okay. Good morning.
THE WITNESS: Good morning.
HEARING OFFICER HORTON: Ms. Court Reporter, could you please swear in this witness.
(Witness duly sworn.)
HEARING OFFICER HORTON: Thank you.
Mr. More, would you like to enter
Mr. Rokoff's pre-filed testimony as Exhibit 41?
MR. MORE: Yes, I would.
HEARING OFFICER HORTON: Would you like to enter Mr. Rokoff's pre-filed answers as Exhibit 42?

MR. MORE: Yes, please.
And I'd like to move to admit into the record as Exhibit 43 Mr. Rokoff's PowerPoint presentation, which is attached as Item -- or Attachment $F$ to

[^0]Dynegy's pre-filed exhibits.
HEARING OFFICER HORTON: Okay. That will be Exhibit 43.
(Whereupon, Exhibit
Nos. 41, 42 \& 43 was marked
for identification.)
HEARING OFFICER COHEN: Okay. Mr. Rokoff, you have an initial statement or a summary of your testimony that you'd like to present?

THE WITNESS: I would.
HEARING OFFICER HORTON: You're limited to five minutes. You may proceed.

THE WITNESS: Thank you very much.
I would like to open by referring to Slide 4. Based on the requirements provided in the Federal CCR rules, it is known what information will be available -- be made available, where it will be recorded, and when it is scheduled to be posted to publicly available websites. We've collected all this data and maintain it through regular checks to have an up-to-date dataset or hatch mark.

My testimony focuses on those factors and considerations affecting and influencing the method of closure.

[^1]The next two slides, 5 and 6, provide a high-level summary of my opinions found in my testimony. That said, I intend to take this time to focus on specific questions 1, 2, 4, and 6, as time is limited.

Closure in place is the dominant method of closure within the industry and it is not an outlier. This is clearly supported by publicly available information.

Turning our attention today to the figure at the bottom of Slide 8, we see that 51 percent of the surface impoundments by count or number are being closed in place. But understanding this does not capture the impact of size.

We further see that 76 percent of surface impoundments are closing in place based on area, which starts to illustrate that larger surface impoundments typically close in place.

And the percent of closure in place continues to rise when looking at the volume of CCR within the pond all the way up to 83 percent. Given the three options, volume of $C C R$ is the best representation to consider the true influence of size on selection of closure method. And this leads me to my next opinion.

[^2]Looking at the bar chart on Slide 10, it breaks the impoundments into three groups based on average volume within a surface impoundment being 2 million cubic yards.

By this, I mean we take small ponds, volumes of CCR less than 1 million cubic yards, mid-size ponds range between 1 and 3, which centers on that average volume, and large ponds, volumes greater than 3 million cubic yards.

Inspections of these bar charts -- or these bars, illustrates that size is the primary driver in closure decision-making. While the majority of small ponds are closure by removal noted in yellow, this falls away from mid-size ponds where only slightly more than 25 percent are closure by removal.

And this trend continues as even fewer ponds are closure by removal in the large group, specifically only 14.

A few additional notes from this chart. Most mid-size and large ponds are closure in place unless there's an external factor driving the closure decision. By "external factor," I mean a regulatory directive, lawsuit settlement, beneficial-use opportunity, or some combination of the aforementioned

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

as well as the ability for cost recovery.
Now, building on my previous opinions, Opinion 4 further demonstrates the influence of external factors in the closure selection process, more specifically, rate recovery and beneficial-use opportunities.

The pie charts on Slide 12 illustrates the significance of rate recovery by State, on the left, and by site, on the right, as compared to regulated, the upper pies, and deregulated, the lower pies, based on states or sites.

A couple of key observations: Closure by removal is notably higher in states or sites with regulated markets. Additionally, closure by removal is rarely selected if there is no ability for cost recovery.

While not illustrated by the figure itself, it should be noted that beneficial use impacts the closure approach, however only where key factors align that justify it as viable.

Finally, within Opinion 6, the basis for this opinion centers on the identification that the schedule is very compressed within Part 845 and justifies providing additional time.

[^3]Again, thank you for both your time and interest.

HEARING OFFICER HORTON: Okay. Thank you, Mr. Rokoff.

We'll begin with questions.
So from Illinois EPA, are there any questions for this witness?

MS. DIERS: No questions. Thank you.
HEARING OFFICER HORTON: Moving on to the Environmental Groups, are there any questions for this witness?

MS. BUGEL: There are questions, and I believe Ms. Cassel will be handling the questioning for the Environmental Group.

HEARING OFFICER HORTON: Okay. Ms. Cassel, are there questions for this witness?

MS. CASSEL: Good morning. Yes. Are you able to hear me?

HEARING OFFICER HORTON: Yes.
MS. CASSEL: Okay. Great. Give me a moment. EXAMINATION

BY MS. CASSEL:
Q. Mr. Rokoff, thank you for being here this morning. I'd like to turn your attention, if you

[^4]would, to your responses to the Environmental Group's questions 12-B, which is on Pages 10 to 11 of your pre-filed answer.
A. Okay. Did you say D, as in David, or B, as in boy.
Q. D, as in David.
A. Thank you. I'm there.
Q. Great. You state there, Mr. Rokoff, that:
"Identification of viable alternatives,
conceptual design of these alternatives, and modeling of these alternatives is an iterative data-intensive and time-consuming process."

Do you see that answer?
A. Yes. That's the first part of my response. Yes.
Q. Thank you for clarifying that.

So, sir, I wanted to ask, with the exception of legacy impoundments, that is, impoundments that are no longer actively being operated at power plant sites that are no longer producing electricity, CCR surface impoundments subject to the federal CCR rule were required to develop and post a closure plan in 2015. Correct?
A. That is correct.

[^5]Q. And based on your review, sir, is it accurate that most of those impoundments did develop a closure plan?
A. Yes, they did.
Q. Is that true for Illinois?
A. Yes, it is.
Q. Would you agree that identification of viable alternatives is a task that most CCR surface impoundment owners, including those in Illinois, began years ago in order to develop their closure plan under the federal CCR rule?
A. I would state that -- that viable alternatives is a process that continues to evolve as the -- as the owner or operator continues to assess what is the most appropriate solution. So it is something that did begin probably for many sites, although I couldn't speak to all of them, at sometime before today.
Q. And they would have had to do at least some level of evaluation to develop and post a closure plan under the federal CCR rule. Would you agree?
A. I can't speak to the specific level of detail that everyone was required to do. I can speak to the fact that the CCR rule does require certain elements
\[

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$
\]

under Section 102 -- I'm sorry -- Section 257.102 to be posted within that document, and there's some analysis, some assessment, that would be required.
Q. Now, sir, I'd like to move to your response to the Pollution Control Board's Question 26 , which is on Page 2 of your pre-filed answers.
A. Okay.
Q. So part of your answer to $26-\mathrm{A}$ is that:
"The annual volume of beneficial use is not an item that is required to be posted under the provisions of the federal CCR rule, and I do not have access to this data."

Do you see that portion of your answer?
A. I do.
Q. Are you aware that the Illinois Coal Ash Pollution Prevention Act, the Public Act 101.171, specifies, at 415 ILCS $22.59(\mathrm{~h})$, that:
"Any owner of a CCR surface impoundment that generates CCR and sells or provides coal combustion by-products pursuant to Section 3.135 shall, every 12 months, post on its publicly available website a report specifying the volume or weight of CCR in cubic yards or tons that it sold or provided during the past 12 months"?
A. I'm not aware of that document. What I am aware, and in reference to full answer to the question and the response that you asked, I stated that in my testimony that $I$ did provide that the data used to support the opinions is based on the publicly available data that's supported under the federal CCR rule.
Q. Right. So what I'm asking is whether you know if any publicly available information concerning the sale or provision of coal combustion by-products in Illinois has been reported or if you've looked at those reports?
A. That's outside the data within my testimony.
Q. So you have not looked at or for any such reports?
A. Again, that data is outside my testimony. My answer remains.
Q. As part of your testimony, did you look into whether any such reports exist?
A. I did not look into specific state reports. I used the data that was provided under the federal CCR rules.
Q. Okay. Thank you.

Moving now to the Environmental Group

[^6]Question 6-A, which is on Pages 6 to 7 of your pre-filed answers, as well 6-B on Page 7.
A. Okay.
Q. You noted that there were 13 units above 3 million cubic yards, which I believe you have abbreviated as "NCY" -- excuse me -- 13 units with over 3 million cubic yards of CCR closed by removal, in part, because they were influenced by a State regulation or regulatory directive; is that correct?
A. Correct.
Q. Sir, I'm curious to see if some of your regulatory directives are similar to those that we've seen. I'd like, if $I$ could, to ask for us to take a look at Exhibit 5 that the Environmental Groups filed yesterday morning with their -- with the pre-filed exhibits.

This is Virginia Senate Bill 1355.
And, Hearing Officer, if possible, I'd like to ask to move that into evidence.

HEARING OFFICER HORTON: Okay. One second. Let me find it.

MS. CASSEL: Sorry.
HEARING OFFICER HORTON: Okay. I have got
it. It says this was Exhibit 5, filed on September 28
and it will become Exhibit 44.
MS. CASSEL: Wonderful.
(Whereupon, Exhibit No. 44 was marked for identification.)

BY MS. CASSEL:
Q. Sir, are you familiar with this bill -excuse me -- this statute?
A. I am familiar with the contents, but the specific details is not something I have captured in my testimony. Yes.
Q. So this was one of the regulatory -- excuse me -- units that you had looked at or regulatory efforts affecting units that you discussed?
A. Correct.
Q. Great.

MS. CASSEL: Similarly, with Exhibit, I
believe it's 6 that was filed on September 28th, likewise, I'd like to ask to move that into evidence, Hearing Officer, once you are able to find it.

HEARING OFFICER HORTON: I've got it, and it's going to be Exhibit 45.

MS. CASSEL: Great.
(Whereupon, Exhibit No. 45 was marked for identification.)

BY MS. CASSEL:
Q. Are you familiar, sir, with this regulatory action, this statute?
A. Give me one moment to take a look at it to make sure I'm finding it.

You said this was Exhibit 6?
Q. Of the Environmental Group's exhibits filed on September 28th, correct.
A. Yes, I am.
Q. Great.

Was this one that you took into consideration in your testimony, sir?
A. It was.
Q. Okay. Thank you.

Similarly, I'd like you to, if you would, direct your attention to pre-filed Exhibit 3 filed on September 28th by the Environmental Group. I'll wait for you to get there.
A. Okay. I'm there.
Q. Great.

MS. CASSEL: Hearing Officer, could we also enter that into evidence?

HEARING OFFICER HORTON: Okay. That will be Exhibit 46.

BY MS. CASSEL:
Q. Okay. Sir, are you familiar with this particular regulatory proceeding in Indiana, are you familiar with that?
A. So this particular document is not part of my testimony.
Q. Are you familiar with the regulatory settlement related to the A.B. Brown -- section A.B. Brown ash pond in Indiana?
A. Yes, sir. Allow me one moment to point you to something.

So within my testimony under Section 4.5, which is Opinion 5, I make reference to the A.B. Brown facility. And rather than referencing the document that you have in your exhibit, I reference a publicly available document as well, it was a news release, entitled, "Vectren finalizes plans for beneficial reuse for coal ash pond excavation and recycling."

The basis of my testimony uses that document as noted within the testimony.
Q. Mr. Rokoff, I have to apologize, my call dropped while you were providing your answer. You

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

said that you have made reference to A.B. Brown in your testimony. If you could possibly restate quickly the remainder of your answer, that would be very appreciative. I don't know why my call dropped.
A. No problem.

So within my testimony under Section -actually, $I$ believe it is 4.4.2.
Q. Okay.
A. -- there's a section in there that indicates the discussion around A.B. Brown facility. And the footnote on that page references a document or website, rather, an article, entitled, "Vectren finalizes plan for beneficial reuse for coal ash pond excavation and recycling."

That is the source of the information presented within my testimony as noted.
Q. I'll move to the next exhibit in that case. I'm sorry. The next one $I$ want to ask you to refer to is Environmental Group's Exhibit 1 filed on the 28th of September.
A. I'm looking at the same thing you are. This is consent order.
Q. That's correct. That's correct.
A. Yes.

MS. CASSEL: Hearing Officer, if you found it, I'd like to also move to enter this exhibit into evidence.

HEARING OFFICER HORTON: Okay. That will be Exhibit 47 .

> (Whereupon, Exhibit No. 47 was marked for identification.)

BY MS. CASSEL:
Q. Mr. Rokoff, is this consent order also one of the regulatory actions that you were considering in your discussion in your testimony?
A. Yes.
Q. Great. And this pertains to a number of different coal ash impoundments in North Carolina; is that correct?
A. Correct.
Q. And that several of those are over 5 million cubic yards in size, to your recollection?
A. Are you referring to 3 million cubic yards?
Q. We can start with 3 million cubic yards. Or I can try to clarify --
A. The reason $I$ asked, for clarification, is that in my report, in my testimony, I bound it by 1 and 3. Not 5. And so I'm asking did you mean 3.

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

Q. Sorry to interrupt. Let's go with 3 then. Does this consent decree relate to a number of North Carolina impoundments that are over cases well over 3 --
(Reporter clarification.)
HEARING OFFICER HORTON: I'm sorry. This is
Vanessa Horton. Could you repeat that, Ms. Cassel, for our court reporter.

BY MS. CASSEL:
Q. I believe I asked does this consent decree refer to a number of impoundments that were over or, in some cases, well over 3 million cubic yards of coal ash?
A. And the answer is yes.
Q. Finally with the exhibits, $I$ wanted to direct your attention to Exhibit 2 of the Environmental Group's exhibit filed on the 28th.

MS. CASSEL: Hearing Officer, when you locate that, I'd like to move that into evidence as well.

THE WITNESS: I'm there.
HEARING OFFICER HORTON: Okay. That will be Exhibit 48.

$$
\text { (Whereupon, Exhibit No. } 48 \text { was }
$$ marked for identification.)

BY MS. CASSEL:
Q. Sir, this is a press release; is that correct?
A. It appears that way, yes.
Q. Is this a press release that you reviewed while you were investigating sites that had been required to close by removal by regulatory action?
A. This particular press release is not something that I've seen or is not part of the testimony that I provided. The contents appear to be consistent with the understanding that $I$ have.
Q. Excellent. Thank you. I'll move on from there.

Sir, moving to your answer to Environmental Group's Question 9-A, which is on, I believe, Page 9 of your pre-filed answers.
A. Yes.
Q. You noted that:
"Options or methods would not necessarily be excluded through application of cost and ability to satisfy regulatory timelines."

Is that correct?
A. Yes, that is my -- that was my response.
Q. Mr. Rokoff, are you aware of instances in

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

which an owner or operator determines how to move forward with a particular closure method based on cost?
A. So my experience says that there's lots of reasons and factors why a closure method is selected. Cost is one of those methods and it usually is not one item -- it is unlikely that it is one criteria that provides a final decision as to why one method is selected or is not, but, rather, a collection of criteria.
Q. Are you aware of instances in which an owner or operator's decision not to move forward with a closure method was based primarily on cost?
A. As I look back at my experience, cost is, again, one of many factors. So it's unfair for me to say that that's the primary factor but, rather, one of many primary factors that aid the final selection.

I will note that my testimony does indicate that cost is an important factor, as we've seen by the charts. As a matter of fact, in states that don't have cost recovery, 1 percent of the volume of cost of material is currently identified as closure by removal.
Q. And when you say "currently identified,"

Electronic Filing: Received, Clerk's Office 10/23/2020
September 30, 2020
that's based on what was provided in the closure plan posted on the federal website; is that correct?
A. Correct. So that's based on the dataset that's provided to me based on the data that was publicly available as well as the other factors that I've noted within my testimony.
Q. Okay. Now, sir, one final question. Your response to Environmental Group which relates to your response to Environmental Group's Question 7-C, which is on Page 8.
A. Yes.
Q. You state -- okay. I'm sorry. I may have the wrong question. Let me make sure. Yes.

So in response to the question:
"Please identify any circumstances under which closure in place would not be an appropriate solution," you responded that:
"A solution that would not be appropriate would be one that is not compliant with the stated performance standards, (based on stability, water management considerations, et cetera,) as provided within the federal CCR rules."

Is that correct?
A. That is correct.

[^7]Q. Can you elaborate on the stability concerns that you referenced in this answer, 7-C, answer to Question 7-C?
A. I can. So the federal CCR rules provide the requirement for stability to be demonstrated, both seismic and other slope stabilizations -- I'm sorry -slope stability criteria. It's found within Section 257.73. It has its own stability report. So it's compliant that those facilities and that the site is, in fact, stable. That's what I'm referring to.

Stability can also be referenced due to the settlement potential of the cap, which is also part of the design criteria.
Q. Thank you very much.

MS. CASSEL: That concludes my questions for now, but I'll reserve the right for follow-up. Thank you.

HEARING OFFICER HORTON: Thank you.
Moving onto to Midwest Generation, Ms. Gale, any questions for this witness?

MS. GALE: No questions. Thank you.
HEARING OFFICER HORTON: City of Springfield, Ms. Williams, any questions?

MS. WILLIAMS: How is my audio today?

Electronic Filing: Received, Clerk's Office 10/23/2020
September 30, 2020

HEARING OFFICER HORTON: Sounds good.
EXAMINATION
BY MS. WILLIAMS:
Q. So I would like to ask one follow-up. This is Deborah Williams on behalf of the City of Springfield. Good morning.
A. Good morning.
Q. Ms. Cassel entered several exhibits, public utility rate cases, lawsuit since statutes, and just to make sure I understand your testimony, that when you are describing external factors that influence removal choice decisions, those are the type of external factors you're referring to?
A. Well, not exclusive, yes. Those are examples of external factors.
Q. And you want to remind us of some others?
A. So the other large one that doesn't fall within that would be cost recovery and rate recovery and the option for beneficial use. There are some utilities that have determined to select proactively a beneficial use alternative that may not result from a regulatory and/or legislative decision.
Q. Do you have an opinion on whether utilities, when beneficial use options present themselves, prefer

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

to take them or not?
A. I'm sorry, Ms. Williams. Can you repeat the last part of your question?
Q. Let me rephrase a little bit. I just want to see if you have an opinion on whether utilities seek out beneficial use opportunities or take advantage of them when they're technologically feasible and available?
A. It's my experience that there are a lot of factors that go into whether or not beneficial use is a viable option, and I'm just going to cite four of them, as I've already stated in my testimony, but just to make sure.

The market demand; the proximity to source; the ability to remove or de-water the material and then convey it to a site; and the quality of both the pre- and final contents of the CCR within the pond.

It's my experience that beneficial use is something that utilities or owners or operators do consider to see whether or not it's feasible or it makes sense.

But a lot of factors, as I've already mentioned, have to align and it is often the case it is unlikely that they always line and, quite honestly,
seldom do they line.
Q. So when we talked about the external factor of the availability of rate recovery, I know it may be obvious to most people reviewing your testimony, but I guess I would like you to state clearly for the record, this is not a coincidence, is it?

Explain why cost recovery is a factor that's relevant here.
A. No problem. The ability to recover their cost is an important factor. It is not a coincidence. The ability to recover cost, generally speaking, closure by removal -- and, again, cost is an important factor that needs to be part of the decision process.

Closure by removal can be more costly and oftentimes may be more costly than closure in place, and that when looking at the ability to do a cost recovery, whatever the option is, that cost is a deciding factor or a notable factor in the overall selection process.

$$
\text { I'm not sure if } I \text { was able to answer your }
$$ question completely. I hope so.

Q. And let me ask this last follow-up to maybe bring it together. In addition to it not being a coincidence that states with cost recovery are places
where large facilities use closure by removal, you also did not find a connection, a correlation, between environmental triggers, such as location restrictions and groundwater protection standard violations and the choice of closure by removal; is that correct?
A. To be clear, so environmental standards, groundwater protection standards, we didn't look at that and study that specifically in the testimony. What I would note is that if you look at Opinion Number 3, that $I$ tried to look at, for example, where there was some sort of indication to see whether an environmental factor led to a certain type of closure. So, for example, failure to comply with groundwater protection standards, the US EPA and the federal CCR rule did not require a certain type of closure method. I went back to see whether or not a certain type of closure method was preferred or selected, and it did not seem to present one.

What presented itself was that closure in place was still a widely accepted closure option for those situations.
Q. Well, thank you. This was helpful to me. I appreciate it.
A. No problem.

HEARING OFFICER HORTON: Moving on to the Illinois Environmental Regulatory Group, Ms. Brown, any questions for this witness?

MS. MELISSA BROWN: No questions for this witness. Thank you.

HEARING OFFICER HORTON: Moving to Ameren, Ms. Manning, any questions for this witness?

MS. MANNING: No questions for this witness. Thank you.

HEARING OFFICER HORTON: Moving to the Attorney General's office, Mr. Sylvester, any questions?

MR. SYLVESTER: No questions at this time. Thank you.

HEARING OFFICER HORTON: Moving to the Pollution Control Board Technical Unit, Mr. Rao, any questions?

MR. RAO: No questions. Thank you.
HEARING OFFICER HORTON: Okay. Any follow-up
questions for Mr. Rokoff?
MS. CASSEL: Hi, this is Ms. Cassel with
EarthJustice. I have one follow-up questions to Ms. Williams' questions.

HEARING OFFICER HORTON: Please proceed.

[^8]
## FURTHER EXAMINATION

BY MS. CASSEL:
Q. Mr. Rokoff, you noted that closure in place was chosen frequently in your review of other plans and other data available; is that correct?
A. I did.
Q. And would you say that that was less the case in states where there's a regulatory structure in place, where regulators are evaluating the closure method of the particular coal ash pond?
A. Can you rephrase your question or restate it? I'm sorry.
Q. Sure.

In states where there was regulatory body overseeing or making decisions about the closure methods of coal ash ponds, would you say closure in place was less common or less frequent than in states where there was no regulatory body making such decisions?
A. I do look at that as part of my testimony. Again, we use the basis of the federal CCR rules. Not individual state regulatory. As I am sure you're aware, there are limited states that currently have state programs that supersede the federal or are in

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

compliance with the act, as mentioned earlier, that have such state regulatory programs in place.
Q. Okay. Thank you, sir.

MS. DIERS: This is Ms. Diers. I have one question that $I$ probably should have asked earlier. Is it okay if $I$ proceed?

HEARING OFFICER HORTON: Yes, please proceed.
MS. DIERS: Thank you.

EXAMINATION

BY MS. DIERS:
Q. Good morning. My name is Stephanie Diers. I'm asking a question on behalf of Illinois EPA.

Does your study of pond size versus closure type have a minimum pond size?
A. It did not.

MS. DIERS: Thank you.
HEARING OFFICER HORTON: Okay. Any other
follow-up questions for this witness?
All right. Hearing none.
Thank you, Mr. Rokoff. You are dismissed.

THE WITNESS: Thank you.
(Witness excused.)
HEARING OFFICER HORTON: Moving on to Sharene
Shealey. Are you on the line?

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

MS. GALE: She's in the room with us.
HEARING OFFICER HORTON: Great.
Ms. Court Reporter, could you please swear in this witness.
(Witness duly sworn.)
HEARING OFFICER HORTON: Ms. Gale, would you like to enter Ms. Shealey's pre-filed testimony as an exhibit.

MS. GALE: Yes, I would.
HEARING OFFICER HORTON: That will be Exhibit 49.
(Whereupon, Exhibit No. 49 was marked for identification.)

HEARING OFFICER HORTON: And would you like to enter Ms. Shealey's pre-filed answers as an exhibit?

MS. GALE: Our answers were one document, so I think we can just make Midwest Generation's answers as the next exhibit, and that can be then for Mr. Gnat and Mr. Nielson afterward.

HEARING OFFICER HORTON: That's correct. Sorry about that.

So Midwest Generation pre-filed answers will be Exhibit 50.
(Whereupon, Exhibit No. 50 was marked for identification.)

HEARING OFFICER HORTON: Ms. Shealey, do you have an opening statement or a summary that you'd like to present?

THE WITNESS: Yes.
HEARING OFFICER HORTON: Okay. You are limited to five minutes. Please proceed.

THE WITNESS: Thank you.
My name is Sharene Shealey, and I'm employed as a director with NRG Energy, which, in turn, indirectly owns the mid shares of Midwest Generation, LLC.

I would also add that I'm a resident of Will County, and where I live is captured within the ten-mile radius requirement described in the proposal.

Midwest Generation appreciates the hard work that both the Illinois Environmental Protection Agency and the Illinois Pollution Control Board have done to expedite the Rulemaking process on an extremely tight schedule.

As stated in my testimony, Midwest Generation agrees with certain aspects of the proposed rule. Specifically, Midwest Generation supports the sections

[^9]that closely follow the U.S. Environmental Protection Agency's 2015 Rule, Disposal of Coal Ash Residuals from Electric Utilities, codified at 40 CFR 250, part 257.

However, we do recommend some changes, as described in my testimony and in the testimony of Midwest generation's other witnesses, Mr. Richard Gnat of KPRG and Mr. David Nielson of Sargent \& Lundy.

Mr. Gnat is our hydrogeologist with KPRG \& Associates, and his testimony is related to suggested modifications for the groundwater monitoring and assessment of corrective measure in Sections 845.600 through 845.660.

Mr. Nielson is a professional engineer with Sargent \& Lundy, and his testimony is related to suggested modifications in Sections 845.420, the Leachate Collection and Removal System section, and Section 845.770, the Retrofitting section.

Thank you for giving us the opportunity to speak today, and I look forward to answering any questions that you may have. Thank you very much.

HEARING OFFICER HORTON: Thank you, Ms. Shealey.

We will move on to questions. Illinois EPA,
any questions for this witness?
MS. DIERS: Yes, we do. Thank you.
EXAMINATION
BY MS. DIERS:
Q. Good morning, Ms. Shealey. My name is Stephanie Diers, and I will be asking questions on behalf of Illinois EPA.

This is a followup in response to board Question 17. I believe that's on Page 1. Let me know when you're there, please.
A. Sorry.
Q. Thanks, okay. Take your time.
A. Okay. I got it. Thank you.
Q. No problem.

You agree to the board's suggested language which would limit removal of liners to liners that are contaminated.

How would Midwest Generation or other owner or operators determine whether a liner is contaminated or not?

And then also I'd like to ask, how would a owner or operator demonstrate that a liner is not contaminated?
A. As started in my testimony, that -- or
actually David Nielson's testimony -- that probably is a better question for him.
Q. Okay. I could ask him that question. Thank you.

The next question is with respect to the Environmental Group Question 9-B, as in boy. It's on Page 9.
A. I'm there.
Q. All right. In your description of coal transfer and potential difficulties of CCR transfer, you state that a dock or port located on the opposite side of the a power station can make it infeasible to transfer CCR to a barge.

Did you consider the possibility of mobile conveyor belt systems that could be loaded directly from the CCR surface impoundment to a conveyor system that leads to a rail line or barge dock in the instances where either is available on-site?
A. Yes, I think so. Yes. As I said in my testimony, yes.

Mobile conveyor systems can be used in instances such as that as you've described. But our experience is that the facilities, they're not --
(Reporter clarification.)

HEARING OFFICER HORTON: Ms. Shealey, this is Vanessa Horton. We didn't catch the last sentence. They're not totally monitored?

THE WITNESS: It was not monitored. They're not -- our impoundments and my -- as stated in my testimony, impoundments and rail lines or docks or barges -- barge locations are not necessarily closely situated, and so a mobile conveyor system could be substantial, meaning very, very long. BY MS. DIERS:
Q. So it would be difficult but not impossible?
A. It would require -- it would not be impossible, but, as stated in my testimony, it would require additional permitting outside of this permitting.
Q. All right. Thank you.

My next question is, this is in regards to Environmental Group's Question 14-A, as in apple, on Page 14.
A. I'm there. Thank you.
Q. In your pre-filed testimony in which you
state:
"While Midwest Gen doesn't object to financial assurance, the increased cost must be
properly accounted for in an analysis of the economic impact to the people of Illinois."

My question is, does Section 22.55 -- I'm sorry -- $22.59(f)$, as in frank, of the Act require financial assurance?
A. It appears to, yes.
Q. Would you agree that the purpose of financial assurance is to prevent the people of Illinois from having to bear the cost of cleanup where an owner or operator fails to properly remediate a pollution source and/or resulting contamination?
A. Could you say -- would I agree? Would I agree what?
Q. I can repeat it. I'll go a little bit slower. Sorry.

Would you agree that the purpose of financial assurance is to prevent the people of Illinois from bearing the cost of cleanup where an owner or operator fails to properly remediate a pollution source and/or resulting contamination?
A. I would agree that that's the intent of it, yes.
Q. Thank you.

My last question is a follow-up to Agency

Question 1-D, as in dog, on Page 15.
A. Okay.
Q. And your response to Agency's Question 1-C, as in cat, you state that:
"Generally, a removal of free liquid is accomplished by draining a water by gravity flow."

And your response to agency Question 1-D, as in dog, you state:
"The length of time to remove the CCR and water depends upon the size of the impoundment, the amount of water and CCR to be removed, which could be left in all of either water or CCR contained within the impoundment and also the amount of precipitation that occurs during the removal process."

So when liquids are gravity-drained, is it typical for some water and some CCR to be left in the surface impoundments after a routine removal?
A. Yes.

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

HEARING OFFICER HORTON: Thank you.
Turning to the Environmental Group?
MS. BUGEL: Yes, I have questions.
Did you want me to move up there, or do you
just want to turn the camera?
HEARING OFFICER HORTON: I'll turn it. I
think that will work fine.
EXAMINATION
BY MS. BUGEL:
Q. Good morning, Ms. Shealey. Can you tell me, first, can you hear me okay?
A. You're slightly muffled, but I think I can.
Q. Okay. Please let me know then if you have any trouble hearing my questions. I don't want to take my mask off because of the number of people in the room here.

My first question is following up on a question that Ms. Diers just asked you about mobile conveyor systems.

Does Midwest Generation have a conveyor that crosses the river in Joliet?
A. Not a functional one.
Q. Do you know when it was last functional?
A. Prior to ceasing burning -- or when we stopped burning coal.
Q. And can you tell me when you stopped burning coal there?
A. I would only be guessing because I did not

[^10]prepare that. I believe it was in 2016.
Q. Can you tell me what river it crosses in Joliet?
A. The Des Plaines.
Q. And do you have any idea how long that conveyor is?
A. No, I have no idea.
Q. I am going to turn to your responses to pre-filed questions starting on Page 3, Question 1-G, as in girl.
A. Actually, I'm sorry. Can I add a clarification?
Q. Yes.
A. I don't have a good estimate of how long that conveyor is, but that conveyor is not mobile, just to be clear. I'm not certain whether it still exists as a conveyor; I don't believe it does. But our conveyors are not mobile, just to be clear. Thank you.
Q. For the benefit of the board and others here, do you know what the difference between a mobile conveyor is and a not mobile conveyor?
A. I'm aware of some differences. I do not know the full conveyor. But a mobile conveyor generally
means it can be moved from a location to a different location. And permanent conveyors -- that's not really a word -- but permanently installed conveyors cannot be moved. They're like sort of bounded in a place similar to a house or a building that they're not movable.
Q. And would that lead to any differences in how long a conveyor could be if it's mobile versus not mobile?
A. I would believe that is well outside of my expertise.
Q. Okay. Thank you for your follow-up on that. So I now will turn to Question 1-G on Page 3.
A. I'm sorry, Ms. Bugel, G, as in great?
Q. G, as in great.
A. Thank you.
Q. And there was an objection to this question, so you did not answer it. I would like to re-raise this question again and respond to the objection.

MS. BUGEL: Kristen, do you want to articulate the objection, or do you want me to read it into the record?

MS. GALE: Yes. The objection is that that question is not relevant to this proceeding. And I

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

guess we can ask -- you can ask the witness to explain why it's not relevant.

MS. BUGEL: Well, I'd like to respond with an argument on relevance.

First, I would say that -- and the question, for the record, is: Has Midwest Generation installed dry sorbent injection, DSI, on any of its plants?

And our response to the objection is that, first of all, Midwest Generation has opened the door to this line of questions through the testimony of two different witnesses. One is Richard Gnat, who testifies that a change in items, such as coal feedstock, combustion processes, and/or CCR material handling, could affect monitoring and require re-evaluation of a monitoring program that he recommends.

Second, Mr. Nielson testifies that flue-gas desulfurization, which dry sorbent injection is a type of, he testifies that flue-gas desulfurization could foul the filter layer which could affect the ability to use a leachate collection system above or below the liner, so that Midwest Gen opens the door to the relevance of the use of $F G D$ and DSI.

Third, the Environmental Group's content that
this has an effect on where you need to sample pour water in an impoundment.

So for at least three reasons this is relevant.

MS. GALE: Hearing Officer, may I have an opportunity to respond to those three points?

HEARING OFFICER HORTON: Yes. Go ahead.
MS. GALE: All right. Mr. Gnat's testimony and Mr. Nielson's testimony does not discuss DSI. In fact, DSI is not related to flue gas. And Mr. Gnat's testimony was a general basis. He's not a chemist. It's not -- his testimony was about how coal ash is generated. It's general and had nothing to do with DSI.

The question was related specifically to Midwest Generation's operations, not in a general sense. So if the question is related to a general sense throughout the state, how DSI may get to surface impoundment, then it may be relevant.

But the question here was about Midwest Generation use of DSI, and that was our objection.

I'm also going to object that we're getting into specifics of how Midwest Generation's plants operate and, as we said often in our answers, any

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

specific testimony we will be objecting to because of the general Rulemaking.

But I did suggest that she might ask why it's not relevant.

HEARING OFFICER HORTON: Go ahead.
MS. BUGEL: It's my decision what questions I want to ask and not Ms. Gale's.

MS. GALE: Okay.
MS. BUGEL: And, you know, I'm happy to withdraw the question $I$ included in the pre-filed questions about which plants and when, but I still think that Midwest Gen has raised dry sorbent injection, it is a type of flue-gas desulfurization, and Mr. Gnat raises coal feedstock combustion processes and CCR material handling -- combustion -this goes to combustion processes.

So Midwest Gen has opened the door.
HEARING OFFICER HORTON: This is Vanessa
Horton.
As I have decided in previous days of this hearing, I'd ask that, Ms. Bugel, you limit your question to a generality only and not to a specific plant or facility. So if you could do that in this instance, you can proceed.

BY MS. BUGEL:
Q. Okay. Without referencing any specific facilities, has Midwest Generation installed dry sorbent injection on any plants in Illinois?

MS. GALE: Wait. I think -- I think that's still specific. So I will continue objecting. If it's general to Rulemaking and general to stations, then we will not object. But that question was Midwest Generation-specific.

I guess I didn't understand the Hearing Officer's ruling.

MS. BUGEL: I'm not raising specific facilities. I'm not saying which one or when. I'm just asking generally at any of its facilities.

And I think this goes to how the rules will function, and the way they're written is very much related to how they'll function. And this is true for some of the questions I have going forward, the rules need to be informed by what is happening in Illinois, and I'm saying generally, not a specific plant.

So I think my argument still stands.
HEARING OFFICER HORTON: I'll decide in favor of Ms. Bugel. If the witness chooses to not answer the question, then that is fine. But she may be
allowed to ask this question as a generality.
THE WITNESS: So I'm sorry. Could you give me the outstanding question?

BY MS. BUGEL:
Q. Sure.

Has Midwest Generation installed dry sorbent injection on any of its plants in Illinois?
A. Yes, and that is a matter of public record; they all have air permits issued by the Agency.
Q. And has CCR that was generated after the installation of dry sorbent injection been commingled with CCR before the use of dry sorbent injection at any surface impoundments at Midwest Gen's facilities in Illinois?
A. No, and that's why it's not relevant to this conversation, from our perspective. DSI, dry sorbent injection, is a coal-combustion technology and it does not go to impoundments for us. It's dry-handled. Any ash that comes in contact with dry sorbent is dry-handled in our situations.

I can't speak for every installation of DSI across the nation, but we don't have sorbent in our impoundments, because they are coal combustion technology and not related to combustion and,
therefore, not related to our ash in this bin.
Q. Okay. Going on to Question 1-H on Page 3, this question is, has Midwest Gen installed activated carbon injection at any of its plants in Illinois?
A. Yes, and my answer is similarly. It's a matter of public record the systems have air permits that activate a carbon. It's a post-combustion control technology, and, therefore, is not in wet-handled ash and not in our impoundment.

Again, I cannot speak for the universe of activated carbon systems. I don't have that knowledge.
Q. And I realize that this was probably before you were working in your current position, but Midwest Generation switched from high-sulfur coal to low-sulfur coal at its plants in Illinois; is that correct?
A. That's my understanding. That predates me, but that is my understanding.
Q. And do you know if CCR generated from the burning of high-sulfur coal was mixed with CCR generated from the burning of low-sulfur coal at any of Midwest Gen's surface impoundments?
A. I cannot say that with certainty. I would
say that I think, as stated in my testimony or maybe it was in a response -- I think, actually, I'm sorry, it was probably in a response to the questions from the Agency, our practice has been to routinely remove CCR from most of our surface impoundments.

So it could have happened when they transitioned. I just wasn't around. I don't know the details of how they transitioned from high-sulfur to low-sulfur coal.
Q. Okay. Turning to Page 8 of your responses, I am looking at your response to Question 8-C, as in cat.
A. Yes. I'm sorry. I'm there.
Q. Okay. And you have a response here that generally says Midwest Gen does not agree that air monitoring will significantly assist in determining whether fugitive dust controls are effective.

Your answer goes on. I'm not going to read the whole thing.

But do you see that answer?
A. Yes.
Q. Do you have expertise in air monitoring?
A. That is relative. I am probably more knowledgeable than the average person, but, no, it is

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

Electronic Filing: Received, Clerk's Office 10/23/2020
September 30, 2020
not my area of expertise. But air is my area of expert -- is generally my area of expertise.
Q. How about fugitive dust?
A. Air, generally, is my area of expertise.
Q. And when you say "air, generally," I'm trying to understand whether you include fugitive dust in that or not?
A. Oh, I'm sorry. I think I've stated on one of the responses to a question, and I don't have this all memorized so forgive me. But we have fugitive dust plants at our stations through the air program.

So, yes, fugitive dust is, through our Title 5 permit, issued by the Agency or other permits issued by the Agency, air permits.

So, yes, fugitive dust is considered, and for me, an air issue, in my opinion. Actually, it is an air issue, is my opinion.
Q. Thank you for clarifying.

Have you reviewed the other testimony in this proceeding?
A. No.
Q. So to confirm, you have not reviewed Andrew Rehn's testimony?
A. Ms. Bugel, I cannot tell you what I've read
in the past three weeks. I cannot. I cannot confirm anything -- any specific testimony, other than mine.
Q. So are you familiar with the terminology "confounding factors"?
A. Yes.
Q. Okay.
A. As a Merriam-Webster term.

Could you define it?
Q. So I'm trying to understand. You raised a concern about fugitive dust controls and questioned whether they could be effective because of other industries nearby --
A. Excuse me.

MS. GALE: Ms. Bugel, I would object to your mischaracterization of her testimony. I think you misspoke. You said we had a concern about fugitive dust control and whether they would be effective. What she testified to was whether air monitoring would be significantly effective.

MS. BUGEL: Thank you for correcting that. BY MS. BUGEL:
Q. So generally your concern is about whether air monitoring could be effective because of other industries nearby and their -- the fugitive dust

[^11]emissions that may be coming from those other industries. I --
A. That is --
Q. Go ahead.
A. I'm sorry. I was interrupting you.

I was going to say that is a correct
characterization of the concern expressed.
Q. Okay. Very good.

And I was going to use the terminology
"confounding factors," which I believe is air
monitoring terminology. Those other fugitive dust
emissions could be confounding factors?
A. Correct.
Q. Is that fair?
A. Correct.
Q. Have you ever heard of pre-project air quality monitoring?
A. I'm aware of what that is. I'm not sure that I've ever used that term or had that term -- used that term. But, yes.
Q. Is it fair to say that the purpose of pre-project monitoring is to obtain a baseline?
A. Yes.
Q. So going back to your concerns, is one option

[^12]doing pre-project monitoring in order to obtain a baseline of existing fugitive dust emissions?
A. I would guess that it is possible. But the timelines associated -- again, I'm not a monitoring expert -- but there are timelines that you have to establish for your baseline, and the timelines established under the proposed rule is really tight, and I'm not confident that you could get a good baseline for a project in this circumstance.
Q. Okay. Have you ever heard of upwind and downwind monitors being used across a project area?
A. Ever? Absolutely. But not in a case of a CCR surface impoundment, no.
Q. Okay. Could they be used across a working area where CCR is being remediated?
A. It would have to be a huge impoundment -- or it would have to be over a sizable impoundment, in my opinion.

The impoundments, for example, that I am picturing in my head are small and you would see the same things on both sides. That's how small some of impoundments are. It wouldn't distinguish, in my opinion. Never did. So I don't know.
Q. And just to confirm, in your opinion, if you
had an impoundment of sufficient size, you could use upwind and downwind monitors to measure the incremental dust from remediation activities?
A. It would have to be very -- my
understanding -- or the only times where I saw that use or that I'm aware of that use is at a Superfund site, which are generally gigantic. And relatively gigantic, it's comparable to an entire footprint of a power plant.

I've never seen it done when you're measuring distances of a thousand feet or -- it's just too small. I don't -- I don't understand how that could happen. But, again, I'm not the expert of that. But I don't think it's reasonable or feasible.
Q. Are you familiar with fixed monitors being located along roadways?

MS. GALE: I'm sorry, you cut out. Could you try that again?

MS. BUGEL: Okay.
BY MS. BUGEL:
Q. Are you familiar with fixed monitors being used along roadways?
A. No.
Q. Just from what you know about monitoring,
could the impact from fugitive dust from a passing haul truck be detected as a spike if you had a monitor located along a roadway?
A. Again, I'm not familiar with how those monitors work. I mean, that would be a fine tune because the monitors probably being ducked from a roadway. I just don't have the expertise in that to understand.

But the regulations require that trucks that are carrying materials, fugitive materials -- and the air program requires, trucks that carry these materials be tarped. So you should not see those spikes, you should not be able to measure it. That's the purpose of tarping.
Q. And last question about the monitoring. Do you know if monitor filters can be tested for metals, specific metals, in order to identify indicator pollutants from a certain source?
A. Monitors is a very broad term in that context. I can't -- I don't know what you're -- could you help me? Could you narrow it a little?
Q. Sure. Again, going back to fugitive dust monitoring and various industries being located in an area, is it possible in that circumstance to test a
filter from a fugitive dust monitor and to identify different metals that would be indicator constituents from different sources?
A. That is outside my expertise, so I do not know.
Q. Okay. I am going to turn to Page 14, Question 14-A.
A. I'm there.
Q. And your response here -- well, I want to refer back to -- let's see, the quote -- this question quotes Page 9 from your testimony and it says:
"While MWG," -- M as in Midwest Generation -"does not object to financial assurance, the increased cost must be properly accounted for in an analysis of the economic impact to the people of Illinois."

And then we went on to ask "what does properly accounted for in an analysis of the economic impact to the people of Illinois" mean.

And you indicated -- oh, I'm sorry. I've got -- I read the wrong question.

I'm going to turn to 14-B. I apologize.
So our question there was:
"Do you offer a methodology on how to properly account" -- missing a word, but it should say

Electronic Filing: Received, Clerk's Office 10/23/2020
September 30, 2020
"for the cost of financial assurance and its impact on the people of Illinois. If yes, how did you arrive at that methodology?"

And your answer was:
"Yes, the general rule of thumb for the costs of financial assurance is that each $\$ 1,000$ of financial assurance costs \$10."

After I corrected that, did I read it correctly?
A. I believe so, yes.
Q. Okay. So then my question is: Is the cost of financial assurance, $\$ 10$ per $\$ 1,000$, the same as the economic impact to the people of Illinois?
A. No. It's a piece of it, as stated in my testimony.
Q. So if it is only a piece of the economic impact to the people of Illinois, how do you -- in your opinion, how do you analyze the economic impact to the people of Illinois?
A. I'm sorry, Ms. Bugel. Could you repeat the last portion of your question?
Q. My question is, how do you analyze the economic impact to the people of Illinois?
A. As stated in my testimony, we were not

Electronic Filing: Received, Clerk's Office 10/23/2020
September 30, 2020
attempting to account for every cost that the regulations were --

THE COURT REPORTER: Can you ask her to repeat that?

HEARING OFFICER HORTON: Vanessa Horton. Can you please repeat? We didn't catch your --

THE WITNESS: I can't repeat it. I can try rephrasing.

As stated in my testimony, our attempt was not to provide a summation of the cost of this regulation, but, instead, to make the board aware that the regulation has associated costs to the people of Illinois. Yes.

BY MS. BUGEL:
Q. Same page. I want to follow up on questions -- your responses to Question $15-\mathrm{B}, \mathrm{C}$, and D, which are at the bottom of that page, and in response to our question: "Would a leachate collection system placed above the composite liner minimize the hydraulic head on the composite liner? If not, why not?" You pointed to David Nielson's testimony. Right?
A. Correct, in part.
Q. In particular, David Nielson's testimony is
about damage cases and industry standards generally, right?
A. That is not -- I would not characterize that's what his testimony is about. That was a broad, sweeping statement about his testimony --
Q. Fair enough.
A. -- that $I$ would not use.
Q. The part of his testimony that you pointed to for your answer was about damage cases and industry standards. Is that fair?
A. The part that $I$ point to is a quote directly from Mr. Nielson's testimony. And if you would like, I could read it directly to remove any ambiguity.
Q. Why don't you go ahead and do that so the record is clear.
A. The question is:
"Would a leachate collection system placed above the composite liner minimize the hydraulic head on the composite liner? If not, why not?"

Answer: "As stated in the testimony of
David Nielson, US EPA's risk assessment did not identify any damage cases for composite-lined CCR surface impoundments."

Mr. Nielson's pre-filed testimony reference

Electronic Filing: Received, Clerk's Office 10/23/2020
September 30, 2020
that $I$ will not read, if that's okay.
Mr. Nielson further testified that collection and removal of leachate from a CCR surface impoundment is, "not an industry standard because it is not practical given the inherent operation of a surface impoundment."

With a reference to his testimony and a reference to "see his answers to questions supplied by the Illinois EPA."
Q. And I don't believe your answer answered my question, so $I$ am going to re-ask the question.

Would a leachate collection system placed above the composite liner minimize the hydraulic head on the composite liner?
A. I'm not an expert in those things. You would have to direct it to Mr. Nielson, as I answered in your question. Is that fair? Yeah, it's Mr. Nielson's question, please.
Q. And if I re-asked questions $15-\mathrm{B}$, as in boy, and 15-C, would you also direct me to Nielson?
A. Yes. Yes, as I did in my answer to the question. Mr. Nielson is a professional engineer who is skilled at these things much more than I am, and so I think he would be better able to answer your
question.
Q. Okay. I am turning the page, Page 15, following up on your answer to question 16-A, as in apple, small Roman ii.

And my question is, while you refer four of these responses, all these responses, you refer back to your answer 5-D, $D$, as in dog, and 5-D, the latter part or the end of -- the last two sentences of 5-D indicate that:
"Midwest Gen installed groundwater monitoring wells around its CCR surface impoundments in 2010 and since 2010 has conducted groundwater sampling on a quarterly basis.
"Additionally in 2015, MWG, Midwest Gen, began conducting groundwater sampling pursuant to the federal CCR rule then with a citation."

Again, I don't believe this answered my question, which $I$ will re-ask in a slightly different form here: Could that existing monitoring system be used to at least partially comply with the proposed rules requirements, the proposed rules monitoring requirements, that we are discussing here in this proceeding?
A. That question is better -- Mr. Gnat, who is
also testifying on the behalf of Midwest Generation, would probably be better to answer that question.

My general answer is, at least in part, I believe it can. So Mr. Gnat is the expert, not me.
Q. Thank you.

And is Midwest Gen's existing groundwater monitoring system conducted according to a scientifically sound groundwater monitoring program?
A. Yes. We're following the requirements of the federal rule, which we believe to be based on science. It is based on science, actually. So, yes.
Q. I don't know if we should get started on science after watching last night's debate, but...

Okay. And now I am turning to Page 12. We're going back a little bit. Question 12-B, as in boy. And my question here was:
"Have you asked members of Environmental Justice communities whether such considerations are critical to them?"

I am going to stop there and not ask the second part of that question because $I$ understand at least some of this garnered an objection.

But I am going to turn to your answer after the objection, which is, generally, MWG has been and

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

Electronic Filing: Received, Clerk's Office 10/23/2020
September 30, 2020
continues to be in contact with residents who live near its power stations and response to comments or questions by residents that live near its power stations to the extent that it is able.

And, again, $I$ would re-ask the first question because I don't believe this answer responded to the question.

For the record, I'll read that in:
"Have you asked members of Environmental Justice communities whether such considerations are critical to them?"
A. I'm sorry, Ms. Bugel. Let me go back to what considerations were. Let me just be clear. You discussed considerations.

Yeah, this is all paraphrased from my testimony. I actually need to make sure that I have the full context and the question.
Q. This is referring back to Page 7 of your testimony.
A. Okay. Now that $I$ have context, please re-ask your question.
Q. My question is:
"Have you asked members of Environmental Justice communities whether such considerations are

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

```
critical to them?"
```

A. That's a really interesting question. I would actually believe the answer is yes, but $I$ can't -- because these types of considerations are things that are spoken with -- are things that we would communicate with our neighbors or the impact. When we believe we are going to have an impact on our neighbor, it is our practice to communicate with our neighbor. Okay.
Q. Do you know which of Midwest Generation's -and again, this is just a "do you know"; I'm not asking you to identify. But do you know which of Midwest Gen's CCR surface impoundments are located in Environmental Justice communities?
A. "In" is an interesting word in this context.

I am familiar with Environmental Justice communities, that some of our operations are adjacent or in Environmental Justice communities, yes.
Q. Bear with me. I'm trying to jump around on some pages here.

So my next question is specifically about Lincoln Stone Quarry, and I had some questions at 12-C is -- this is Question 12-C from your pre-filed answers. The question was:
"Is Lincoln Stone Quarry located in an
Environmental Justice community?"
That garnered an objection.
MS. BUGEL: Hearing Officer, I would like to re-ask that question.

Kristen, do you want to read your objection into the record or restate it?

MS. GALE: Yeah. I have a continuing objection to that question because it's asking for site-specific information. I believe it's been made clear by the Hearing Officer and requested by other parties that this Rulemaking is a general Rulemaking, about general rules throughout the State of Illinois, and is not appropriate to discuss specific sites, specifically, as been mentioned plenty of times, this Rulemaking identified how each thing is site-specific.

So to be a general Rulemaking, we should keep the questions general.

MS. BUGEL: And, Hearing Officer Horton, I do have specific questions about Lincoln Stone Quarry. My questions do not go to the proposed rules applicability or not to Lincoln Stone Quarry. There was a public meeting around Lincoln Stone Quarry that raised very serious concerns for the environmental
L.A. Court Reporters, L.L.C.
groups.
Our concerns go to public participation, responding to comments, which is actually something that IEPA has raised earlier in this proceeding, and the dialogue between industry and the community and the public.

And I think this is a really important example because it is indicative of how these meetings are currently handled under the federal rule and gaps in the federal rule.

In this Rulemaking, Illinois EPA and the Pollution Control Board have an opportunity to respond to how public participation was being handled and has an opportunity to fill the gaps in the federal rule.

I honestly -- there's no way of doing this in a general way. And we have six exhibits that are examples -- that raise the examples of our concerns. So I would ask if we can go forward with these questions about Lincoln Stone Quarry.

HEARING OFFICER HORTON: I'm going to sustain -- Ms. Gale, I'm going to sustain your objection.

MS. GALE: Thank you.
HEARING OFFICER HORTON: I understand your concern, Ms. Bugel, and I will allow you to enter the

[^13]exhibits into the record if they have not been already and you could perhaps --

MS. GALE: I have an objection -- hang on. I'm sorry, Ms. Hearing Officer. They were not entered on Monday morning, if they're what $I$ think they are.

MS. BUGEL: The exhibits were actually
attached to our pre-filed questions, and my understanding is that once they were attached to pre-filed questions, we did not need to resubmit them again.

It's the exhibits you already received that were attached to our pre-filed questions. They were filed way before Monday morning.

HEARING OFFICER HORTON: We have proceeded in that manner with other attachments. So if you like --

MS. GALE: Okay.
HEARING OFFICER HORTON: So if you would like to move to enter into those exhibits if they have not been already?

MS. BUGEL: Yes. I would move to enter Attachments 1 through 6 that were filed as attachments to the Environmental Group's pre-filed questions for Ms. Shealey.

MS. GALE: And I would just file an objection
to their entry. These exhibits are unrelated to the State's Rulemaking. These are related to a public meeting or a public discussion pursuant to the federal rule, and they are not indicative of anything about if the Rulemaking should go forward.

As everyone here knows, coal ash rule has specific requirements for public meetings which are a part of the proposed rule that we're discussing here.

What was done under the federal Rulemaking is wholly unrelated to what will likely be done here. And so I don't think it should be used as an example or even deemed relevant to today's -- this Rulemaking.

HEARING OFFICER HORTON: I note your objection, Ms. Gale, but $I$ will allow the exhibits to be entered, and they will be Exhibit 51.

MS. BUGEL: All six attachments will be one exhibit, 51?

HEARING OFFICER HORTON: Let's do that. I think that would be easier.

MS. BUGEL: Perfect.
HEARING OFFICER HORTON: So Exhibit 51 will be attachments 1 through 6 inclusive.

MS. BUGEL: Yes.
(Whereupon, Exhibit No. 51 was marked for identification.)

MS. BUGEL: With that, I have no further questions.

HEARING OFFICER HORTON: Okay. Thank you.
Moving on to City of Springfield, do you have any questions for Ms. Shealey?

MS. WILLIAMS: No questions.
HEARING OFFICER HORTON: Dynegy, Mr. More, any questions for Ms. Shealey?

MR. MORE: Yes, I have one question.
HEARING OFFICER HORTON: Okay.
EXAMINATION
BY MR. MORE:
Q. Ms. Shealey, do you consider yourself an expert on fugitive dust monitoring?
A. No.
Q. One more. Ms. Bugel asked you a number of questions regarding a potential placement of air monitors.

Would you normally rely upon experts to assist you in identifying whether those monitors should be placed and, if so, where they should be placed?

[^14]A. Mr. More, "normally" is too soft of a term, always. It would be the experts who would recommend -- we would rely on experts to map out locations for monitors, always.

## Q. Thank you.

MR. MORE: I have no further questions. HEARING OFFICER HORTON: Okay. Illinois

Environmental Regulatory Group, Ms. Brown, any questions?

MS. MELISSA BROWN: No questions for this witness. Thank you.

HEARING OFFICER HORTON: Ameren, Ms. Manning, any questions?

MS. MANNING: No questions for this witness. Thank you.

HEARING OFFICER HORTON: Attorney General's office, Mr. Sylvester, any questions?

MR. SYLVESTER: No questions. Thank you.
HEARING OFFICER HORTON: Pollution Control Board Technical Unit, Mr. Rao, any questions?

MR. RAO: No questions. Thank you.
HEARING OFFICER HORTON: Okay. Any follow-up questions?

MS. BUGEL: I have no further questions.

[^15]HEARING OFFICER HORTON: Seeing none, we will dismiss Ms. Shealey. Thank you very much.

THE WITNESS: Thank you, Hearing Officer.
(Witness excused.)
HEARING OFFICER HORTON: Just a brief note on the process for today. We're going to start with Mr. Gnat, and then we'll take a break for lunch a little bit early, at 11:15. We'll break for 45 minutes, then come back at noon for public comments.

So we'll start with Mr. Gnat here and see how far we can get. And then we pick up back with him if we don't finish at the end of the public comment section.

MS. GALE: I'm sorry. I heard the timeframe. I just want to warn everybody, we are at a station, and $I$ can't quite remember but there is a routine alarm that goes off sometime between 11:00 and 12:00, so we may have to take a minute break.

HEARING OFFICER HORTON: No problem.
So, Mr. Gnat, are you ready to be sworn in?

THE WITNESS: Yes, I am.
(Witness duly sworn.)
HEARING OFFICER HORTON: Ms. Gale, would you
like to enter Mr. Gnat's pre-filed testimony as an exhibit?

MS. GALE: Yes, I would. Thank you.
HEARING OFFICER HORTON: Okay. So that would be Exhibit Number 52.
(Whereupon, Exhibit No. 52 was marked for identification.)

HEARING OFFICER HORTON: Mr. Gnat, do you have a summary that you would like to present?

MS. GALE: Mr. Gnat does not have a summary, but he's ready for everyone's questions.

HEARING OFFICER HORTON: Okay. Great.
Move to Illinois EPA, do you have any questions for this witness?

MS. DIERS: We have no questions.
HEARING OFFICER HORTON: To the Environmental

Groups, any questions for this witness?
MS. BUGEL: Yes, we do have questions for
Mr. Gnat.

EXAMINATION

BY MS. BUGEL:
Q. Hello, Mr. Gnat. Can you hear me okay?
A. Yes, I can.
Q. If we can just hold one moment, $I$ think we

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

are relocating the microphone so it's a little closer. Mr. Gnat, did you hear the questioning of

Ms. Shealey?
A. Yes, I could.
Q. Okay. I wanted to follow up with you on one question that $I$ asked Ms. Shealey and she identified you being the best person to answer it, and that question is: Could the existing groundwater monitoring at Midwest Generation's surface impoundments be used, at least partially, to comply with the proposed rules requirements?
A. Yes, that's our full intent, is to be able to use as much of the information that we generated since the start of monitoring. And as far as coming into compliance with the federal CCR rule, we use as much of that to be in compliance with the new rule when it gets passed.
Q. And you said use as much of the information. I want to follow up specifically about the actual system that's been installed, the monitors that have been installed.

Same question but as to those monitors, could those existing monitors be used to at least partially comply with the proposed rules and requirements?

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

A. I believe if you're meaning the monitoring wells that were installed as part of the groundwater monitoring systems, yes, the intent is to use the existing wells as -- whatever we need to do to be in compliance with the state rule.
Q. Yes. Thank you. I was referring to the wells. Thank you for clarifying that.

And, in your opinion, is the existing
groundwater monitoring conducted according to a scientifically sound groundwater monitoring program?
A. The groundwater monitoring program that's been established for the impoundments is in compliance with the federal CCR rule, and we're also under compliance with the agreement as well, we do monitoring for that as well.

And all of that has been -- US EPA monitoring
is in accordance with IEPA requirements and negotiations at the time and the federal monitoring programs in accordance with the federal CCR rule.
Q. My question, though, was whether you believe it's done in a scientifically sound manner.
A. I'm not sure I understand the lead of that question. We are fulfilling the requirements of the CCR rule, and that rule was developed based on sound

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

science practices.
Q. I would like to turn to your pre-filed answers. And I am looking first at Pages 23 to 24.
A. Okay. I have them in front of me.
Q. And I'm going to start with question -- a follow-up to Question 2, subpart $D$, as in dog, E, as in elephant, and $F$, as in frank.

MS. BUGEL: And there was an objection, again, as to these questions being site-specific.

Kristen, do you want to repeat your objection.

MS. GALE: Yeah. These questions were site-specific and this is a general Rulemaking about how rules would generally be followed throughout the State of Illinois, and we shouldn't be discussing specific sites.

MS. BUGEL: And this -- Hearing Officer, these questions are about an alternate source demonstration that was submitted under the federal CCR rule for the Midwest Generation's Powerton Station.

Again, my questions, we ask about that alternate source demonstration because it's an example of a concern that we have with alternate source demonstrations, and it goes again to a gap in the
federal rule that we believe Illinois can fill in this proposed rule.

HEARING OFFICER HORTON: I will sustain Ms. Gale's objection to this line of questioning.

MS. BUGEL: Okay.
And now I am looking -- and maybe some of my co-counsel can help me. I'm trying to figure out here in these questions if $I$ had submitted -- yes.

These questions were about groundwater monitoring and corrective action report and an alternate -- part of which was the alternate source demonstration. It was attached to our pre-filed questions for Mr. Gnat. And I would ask that our attachments to those pre-filed questions be admitted into the record of this proceeding.

HEARING OFFICER HORTON: Okay.
MS. GALE: And, Hearing Officer, I would object to that, again, because this is a general Rulemaking. So that's my objection.

HEARING OFFICER HORTON: So I'll overrule your objection, and we'll make the attachments to Mr. Gnat's -- the Environmental Group's questions -all of the Environmental Group's questions to Mr. Gnat as Exhibit 53.


[^16]
## groundwater monitoring program in the final rule should be extended?

A. My understanding, when I read and responded to Question $H$, in context, it was a discussion on the time frames in which $I$ had concerns with of being able to turn around the data, tabulation, analysis, and report submittal, assuming that you have to go back out and do a second resampling and so on.

And then the question then was asked, is there anything that extends this delay of analysis if the analysis is unusually complex, if not, why not.

So my response was, as $I$ wrote in my responses there, is that $I$ did not see anything in the Rulemaking, proposed Rulemaking, that would allow for an extension of this time frame.

And so, therefore, $I$ agree that, you know, if not -- I don't know why it's not there, but $I$ fully agree that there should be a mechanism at which that gets extended.
Q. I just want to confirm that that's your interpretation and your argument and not -- and is something you just infer from the question.
A. That is correct.
Q. And I'm going to turn to Page 27. Question

4-A, as in apple, and in response, the very last sentence of your response, it says:
"If a subsequent numerical groundwater
modeling is necessary" -- I think the "a" was included by accident, and you may have meant to say if subsequent numerical modeling is necessary.

I want to see if my interpretation that the "a" was an accident is correct?
A. That is correct.
Q. Okay. So I'm going to read it as:
"If subsequent numerical groundwater modeling is necessary, the development of that model and subsequent testing of that model will determine the need, if any, for additional, more detailed, site-specific chemical or physical characterization requirements."

Do you see where it says that?
A. Yes, I do.
Q. So my question is: What provisions in the rule assure that information will get developed to support modeling when needed?
A. I think in order to answer that question and to put it into context of my answer, within the rule, the first step -- and what I'm referring to is in the

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

hydrogeologic characterization -- the first step requires to develop a conceptual model for the site and establish a groundwater monitoring network for the site to get a good understanding of those flow conditions. That's the initial phrase of that hydrogeologic evaluation.

Once that's done, the conceptual model for the site is established, and when the -- that conceptual model is then used as a basis for the development of -- for the numerical model.

Now, I'm not a groundwater modeler, so the groundwater modeling expertise then comes in, determines how are they going to set up the model in accordance with the conceptual model developed by this initial hydrogeologic characterization.

And then depending on the site-specific conditions, the complexity of the issues, the complexity of the geology, there may be certain parameters within that model that haven't been generated yet site-specific, that, based on their sensitivity analysis, based on calibration runs, that become very important for that specific site.

Then they turn back and say, "You know what? In order for this model to be most effective for us as

[^17]a predictive tool and so on, we're going to need to really focus in on this additional hand-pulled, site-specific data."

And so then we would go and generate a program to develop that site-specific data, implement it, collect it, tabulate it, and get it over to the modeler so that he can continue with his further calibration and sensitivity analysis for use of that model. So it's kind of a two-step process.
Q. And my question is, are there provisions in the rule that assure that information will get developed to support the modeling when it is needed?
A. As the rule currently -- the way the rule is currently set up, so you'll have sites that have a lot of information already available, but under the current proposed rule, there are new impoundments that haven't been necessarily considered as surface impoundments under the federal rule that might not even have a monitoring network. So at that point, you have to develop that initial hydrogeologic characterization and so on.

So once that's input and the groundwater modelers start developing their model, and, again, that model has to be developed based on a

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

site-conceptual model, not the other way around, so once then the modelers start developing it and they determine they might need something additional site-specific, you go out and collect that additional site-specific.
Q. But what I'm asking is, does the rule provide -- you said if the modeler determines they need something, they go out and they develop it. And I'm asking: If the rule has provisions that support that instance where the modeler determines they need something, they can go out and get it?
A. I believe that it does. I mean, it's a standard process of any hydrogeologic characterization and subsequent modeling. I don't know how much specificity you would need to put into the rule that you're trying to get into, but that's kind of a process that I've been involved with numerous times, and so I'm not quite sure I -- certainly, the way the rule is written, my testimony was going towards some of the general terminology in that initial development of the hydrogeologic characterization for the development of the site-conceptual model, that that -you know, the way it's written right now can be evaluated as a very broad requirement or as a very
specific one.
And so I just tried to, in my testimony, suggest that there might be some clarification as to the fact that this initial study is more on the larger sense of developing the site-conceptual model, and then some of the additional characterizations that are required within the proposal --
(Audio issue.)
THE WITNESS: Going towards either groundwater model development or towards remedy evaluations by the engineers. BY MS. BUGEL:
Q. Our audio and our conferencing system froze up for a second. Can you repeat just the very last sentence? I know that was a long answer, and you don't have to start the whole thing over, but the very end of it.
A. Sure. I believe the last sentence was that the rule, as drafted right now, then also has that next step, that some additional characterization might be necessary in support of the development for the groundwater models and in support of any corrective measure studies or remedial studies being done, the engineers may have some additional requirements.

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

Q. Okay. Thank you. I am just reviewing -- I think you answered some of my next questions, so I'm just doing a quick review.

I am going to turn to Page 28 and a follow-up to Question 5-E, as in elephant, and your answer starting with the purpose of your testimony -- well, I'll read the whole thing -- I'll read the whole question and answer.

The question was whether the exception in Section 620.420 applies to groundwater more than ten feet beneath the fill material.

And you say:
"No, it does not. However, the purpose of my testimony was that there are currently other existing regulations which cover groundwater impacts associated with historic fill materials. And, therefore, this issue is sufficiently addressed outside the scope of this proposed draft Section 845 rule."

> Do you see that?
A. Yes, I do.
Q. Does your testimony site to anything besides 620.420 and Section 12 of the Environmental Protection Act to demonstrate that rules and regulations apply to on-site coal ash landfills?

[^18]A. I think that just mischaracterized my answer a little bit. The answer -- the question was: Does this exception, the 620.420, apply to groundwater more than ten feet below -- or beneath fill material.

And my answer to that, and it's in accordance with my testimony, is no, it doesn't. And groundwater impacts at a site -- at sites, in general, groundwater impacts are covered under 620.

You establish the standards and you exceed those standards. And there are other rules within Illinois EPA that are followed to address those that -- these sites in general.

The proposed rule here, my understanding, is specifically for surface impoundments, and impacts on the site that may be on-site may not be -- that aren't associated with surface impoundments are covered under other aspects of the current regulations, and it's not necessarily part of the impoundment proposed rule, which is what the purpose of my review was and my testimony.
Q. And my question is: Aside from -- I'll broaden it to part 620 and Section 12 of the Environmental Protection Act, do you site in your testimony to any other rules or regulations that apply

[^19]
## to on-site coal ash landfills?

A. I have, in some of my testimony and I believe in some of my responses, referred over to the direct approach to corrective action objectives, rules under Illinois EPA response. So, yes, I believe I have.
Q. Do you know of any rule that explicitly requires groundwater monitoring of on-site coal ash landfills?

MS. GALE: Objection. It's outside the scope of this Rulemaking. It's about CCR surface impoundments.

MS. BUGEL: And Mr. Gnat ventured into the territory of coal ash landfills in opining that the existing regulations are sufficient to cover coal ash landfills, and I'm following up on that line of testimony.

THE WITNESS: I think that that
mischaracterized there. I did not say coal ash -- you had said coal ash landfills, and I tried to clarify that my statement here didn't say coal ash landfills. The question was simply groundwater more than ten feet beneath fill material.

I never did not say coal ash landfills. That was what you had insinuated there. And when I reread
the question, it says "beneath fill material." And then $I$ further tried to clarify that there are other rules within Illinois EPA that cover groundwater that are impacted on sites and that specifically this Rulemaking is for surface impoundments. BY MS. BUGEL:
Q. Okay. Thank you for the clarification.

I will rephrase my question and ask: Do you
know of any rules that explicitly requires groundwater monitoring of groundwater within fill material?
A. I'm not quite sure I understand the question. But, no, I do not -- I believe $I$ do not know of anything specific.
Q. And do you know of any rule that explicitly lays out liner requirements for fill ash or slag above Class 1 groundwater?
A. I'm sorry. What was the question? Regarding liner requirements?
Q. Yes, liner requirements.

MS. GALE: And, again, I would object, that is outside the scope of his testimony. His testimony was related to groundwater monitoring and the groundwater program. He did not testify to anything about liner requirements.

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

MR. MORE: I'm going to further object to the line of questioning going to whether or not additional regulation of fill material is warranted. We treaded this ground in connection with a similar line of questioning to the IEPA in the first hearing, and I believe the Hearing Officer ruled on those objections, and we moved off of this question, what additional regulatory requirements may or may not be needed to govern CCR fill material or CCR landfills.

MS. BUGEL: And I honestly do not remember, Hearing Officer, how you ruled on those objections? HEARING OFFICER HORTON: I believe I sustained those objections, so...

MS. BUGEL: Understood.
HEARING OFFICER HORTON: I will do so here. MS. BUGEL: I will move on.

BY MS. BUGEL:
Q. Question Page 31, I'm looking at Question 9-F, and this refers back to your testimony regarding the flow system on Page 16 of your testimony. I'm seeing that in your answer to this question.

Specifically, I want to follow up on your testimony that, in your experience, the first -- "In
the first few years of monitoring" -- and I'm quoting now -- "In the first few years of monitoring, generally stable conditions are documented, and the groundwater flow system beneath the regulated unit is sufficiently understood."

And then your answer goes on.
So my question about this is: Does your -well, let me just lay a foundation.

This is in regards to your opinion that you can terminate monthly measurements of water elevations if you meet those criteria of first few years of monitoring, you see generally stable conditions, correct?
A. That is correct.
Q. Okay. Does your position on terminating monthly measurement of water elevations depend on stable conditions remaining stable?

MS. GALE: I'm sorry. Can you repeat that question?

MS. BUGEL: Sure. BY MS. BUGEL:
Q. Mr. Gnat, does your position on terminating monthly measurement of water elevations depend on the assumption that stable conditions will remain stable?

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

A. That is correct.
Q. So in this scenario, if after a few years of monitoring, stable conditions are documented, do you believe any measurement of water elevations is necessary?
A. A portion of water measurements is a standard requirement and a standard practice with groundwater monitoring events. In this particular case, the groundwater monitoring events are on a quarterly basis.

And in context of my testimony was that the current proposed rule requirement is to have monthly groundwater measurements, period, that would be throughout the operating life and then throughout the 30 -plus years of postclosure monitoring.

I've never encountered a groundwater monitoring requirement that detailed on a monthly basis for any type of monitoring we've done.

And, in general, I agree that upfront, you know, we want to get a good understanding of the flow system, so monthly measurements may be appropriate. But after two or three years of those, you would have a sufficient understanding of the flow system. And if over time something happens that suggests that your

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

flow system has been impacted and changed in some way, then, yeah, you go back you may need to collect some more frequent groundwater measurements to get a better understanding of what had occurred, and once you have that, you revert back to the standard of groundwater -- what the measurements are on a quarterly basis or for a sampling event.

But to have that monthly requirement for the operational life of the impoundment plus 30 years of postclosure, plus potentially after that, depending on what the current status of groundwater conditions are, I've never encountered a requirement such as that; hence, I provided that in my testimony.
Q. Okay. And just to confirm a couple things, is it your understanding that groundwater flow systems are affected by periods of flooding?
A. That is correct, yes. I mean, that's a standard understanding, that there is an interaction between the surface water discharge boundary and groundwater next to the river.
Q. And is it your understanding that periods of flooding are affected by storms?
A. Yes, periods of flooding can be affected by storms, yes.
Q. And the last question about this, did you account for climate change in forming your position?

MS. GALE: Objection. Outside the scope of his opinions.

MS. BUGEL: So we would argue climate change has effects on storms and flooding, which have been inputs to his consideration or his position. So these are all related, and it goes -- it's simply asking him if he's considered all the relevant factors in forming his position.

HEARING OFFICER HORTON: I'll allow the question.

THE WITNESS: As to the interest in question, and I've heard a lot of -- you know, in some of the discussions yesterday, some theoretical concepts and so on, I'm not quite sure how I would account for the general terminology of climate changes in that, recognizing that it does -- that some of the flood events may be coming a little bit more frequent than what was anticipated or known, and that could be changed certainly to climate change.

However, stepping back a little bit, recognizing that numerical modeling is part of this required process within the system, that numerical
model was set up as a predictive tool to help understand the flow system, to use that as a tool for subsequent engineering evaluations, overlay engineering evaluations.

That's also a tool that helps you identify that once that model is well-calibrated and so on, it helps predict, okay, you know, maybe our water level measurements didn't capture the 80-year flood or 100-year flood. However, the model -- we did capture, several, three, four, five, flood events over the course of that monitoring, and that model calibrates well and it can replicate the water levels that were seen in the wells with the river stage and that model becomes a good predictive tool, that model can help understand what happens with the flow system when you have a slightly larger flood.

And, again, recognizing if you have a larger event or something that truly affects -- looks like it's affecting your flow system and some of your assumptions, which you see, based on your water levels from your quarterly monitoring, then you might need to go back in and take a closer look again for a while.

But to have that continual requirement, again, I've never encountered it in any other
monitoring program I've been involved with. HEARING OFFICER HORTON: This is Vanessa

Horton. It's 11:15 right now, so let's pause with questions for Mr. Gnat, and then we'll resume at noon for public comment and we'll resume with Mr. Gnat at around 1:45. Thanks very much everyone.
(Whereupon, at 11:16 a.m., a luncheon recess was taken to 1:00 p.m.)

| AFTERNOON SESSION <br> HEARING OFFICER HORTON: Good afternoon, everyone. Welcome to this Illinois Pollution Control Board hearing. My name is Vanessa Horton, and I am the Hearing Officer for this Rulemaking. <br> This proceeding is entitled, Rulemaking for Proposed New 35 Illinois Administrative Code 845, Standards for the Disposal of Coal Combustion Residuals in Surface Impoundments. <br> The board docket number for this Rulemaking is R20-19. <br> Also present from the Board are two of our board members, Board Member Anastasia Palivos and Board Member Jennifer Van Wie. They are both appearing via video. <br> Welcome to the Public Comment portion of the second set of hearings in this matter. During the first set of hearings in August, we welcomed oral public comments in person, via Webex, and via telephone. We do the same today. The way this will work is as follows: <br> For everyone who had submitted their request to make a public comment, I have broken those individuals up into 15 -minute segments. I will call |  |  |
| :---: | :---: | :---: |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

[^20]on the individuals to make a comment. When I do so, please unmute yourself by pressing the microphone button on the bottom of your screen if you are participating via video or by pressing star 6 if you're calling in by phone.

If I call on someone and they aren't on the line yet, $I$ will circle back to them at the end of the 15-minute segment. If there is time remaining at the end of the Public Comment section, I will call on individuals who have not signed up for a time slot in advance.

Due to the number of people making comments today, please limit yourself to a two-minute comment. I will, unfortunately, have to cut you off at the two-minute mark in order to let everyone have a chance to speak today.

In accordance with Board Rule 101.606, please be advised that this Public Comment portion is being recorded by the Board to assist the court reporter in getting an accurate record. The Public Section portion is also being livestreamed via Facebook on the Sierra Club Facebook's page.

Participant Prairie Rivers has requested a Spanish language interpreter to be present for these
public comments. He is here physically in the Thompson Center here today. So if anyone would need their comment translated from Spanish into English to be recorded by our court reporter, please let me know at the start of your comment.

Please be advised as well that the board gives equal weight to both oral and written public comments.

With all that said, we will begin.
First up, Mr. Bob Jorgensen. If you would like to give --

MR. JORGENSEN: Good afternoon. I appreciate the chance to comment and your attention to my comments. My name Bob Jorgensen. I live at 212 Sunnybrook Drive, East Peoria, Illinois. I have been an environmentalist for most of my 71 years. I am currently chairperson of the Heart of Illinois groups Sierra Club and president and founder of East Peoria Green.

I am concerned about the poisonous remains of the coal that has been burned in the coal-fired power plants in Illinois. It hurts me that these toxic residuals are left next to rivers and aquifers that provide drinking water for our communities. In many
L.A. Court Reporters, L.L.C.
locations they are seeping into our water systems right now. We can't allow this threat to the health of Illinoisans to continue.

The Illinois Pollution Control Board must strengthen its standards to protect my health, my daughter's health, and the long-term health of my grandsons, Oliver, 5, and Aaron, 7.

If Oliver and Aaron are being poisoned now, how will their health be when they get to be married? How will it be if they raise their children to adulthood? Will they have a chance to enjoy a healthy retirement? You must make a commitment not to do an ineffective job of just capping these remains in place where the heavy metals can pollute our water supplies.

You must commit to doing a top-notch job of protecting everyone's health by hauling all of the toxic materials from the vicinity of our rivers and aquifers and entombing them in a dry, stable location where they won't threaten our health. You owe to this my grandsons and your own grandchildren. Thank you.

HEARING OFFICER HORTON: Thank you.
Next up is Alex Rosen.
Okay. I'll circle back at the end of the 15 minutes.

Ann Baskerville?
MS. BASKERVILLE: Hello. Good afternoon everyone. Thank you for this opportunity to comment. My name is Ann Baskerville. I live in Will County, which is home to many coal ash ponds and the coal ash landfill and an old quarry in Joliet. While an old quarry may be a convenient place to dump coal ash, it's also a place where you see ash sitting in water.

Last summer, residents from the neighborhood right next to the query gathered to express concerns about coal ash toxins leaching into their underground water supplies. Those fears are not unfounded. In the past, documentation has shown groundwater flowed from the quarry containing the coal ash further south along Brandon Road near residential wells.

What is to say the flow of coal ash contaminants will change? Active quarrying in the area could impact groundwater flow.

Furthermore, people fish the nearby
Des Plaines River.
We need strong coal ash rules that will protect both underground and surface water supplies. My understanding is the operator is currently running pumps to keep water in the Joliet Quarry. What is the

[^21]plan for when those pumps stop? How will water pumped into the Des Plaines River be monitored both now and in the long-term.

Finally, concerns about cumulative environmental impacts must be incorporated into the rules.

At the meeting last summer, residents in Joliet described multiple sources of harmful pollution in their neighborhood and noted experiences of family and friends dying of cancer.

These rules must take these cumulative impacts into account. Thank you.

HEARING OFFICER HORTON: Thank you.
Next up is Annie Dude? Annie Dude? We'll circle back at 12:15.

Next up Basel Al-Aswad.
MR. AL-ASWAD: Hello. Thank you, members of the Illinois Pollution Control Board. My name is Basel Al-Aswad and I'm a 74-year-old semi-retired orthopedic surgeon who works part-time in Lawndale Christian Health Center in Lawndale, in Chicago, in an underserved area. I live downtown Chicago, and I've been in the Chicagoland area for 50 years, and I'm proud to be a Chicagoan and an Illinoisan. I also

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

have a second home in Bloomington-Normal.
I'm a good fan of the outdoors. But more important, I have a daughter and two beautiful granddaughters, one and three years old. I believe I am their voice, too. I'm a member of the Sierra Club, and I'm concerned about global environmental issues. But here in Illinois, I'm very concerned about the toxic effects of coal ash to water quality and human health.

As a physician, Illinoisan, and grandparent, it is not enough to pass the Coal Ash Prevention Act, as great as that was. It is imperative that it is followed by strong rules to enforce it. The cleanup has to be done properly with no wet ash and clear closure standards of the coal ash impoundments. There has to be proper corrective actions and no coal ash-contaminated background wells.

Environmental justice has to be a consideration and the effects on vulnerable disadvantaged communities and how to remedy them.

Finally, there has to be a meaningful public and agency oversight by making sure that all key documents be available for viewer comment as you go to a convenient place and sufficient time. Public input

[^22]is integral to the process, in my opinion.
Thank you very much for giving me the opportunity to express my comments and concerns related to the coal ash pollution in Illinois, and hopefully you will make the rules strict. Thank you.

HEARING OFFICER HORTON: Next is Blair Janis.
MS. JANIS: Hi. Thank you for this opportunity to speak to you today and for encouraging public comment on this extremely important issue.

My name is Blair Janis. I'm a proud Illinoisan resident. I've been studying environmental justice, specifically the impacts of exposure to heavy metals in children and the long -- lasting impacts on their health and well-being.

I know that you've heard from plenty of experts highly more qualified than me today, so today I'm speaking to you as a resident of Illinois and, honestly, as a person who has a lot of other things to worry about. In fact, I think the last thing on a list of everyday worries or even keep-you-up-at-night level worries for most people is the highly technical rules of managing coal ash waste in our state. And honestly, that's how it should be, because you are charged with restoring and protecting the environment,
including the many ways that the environment directly impacts our public health.

I'm here to ask that today you take your responsibility and your role as individuals within this body with the great level of seriousness and the full weight of responsibility that this issue and the Rulemaking process deserve.

My mom's entire family is from Naplate, a surrounding rural area, right on the Illinois River, downstream from Will County Generating Station and upstream from the Hennepin Power and Energy Plant. Naplate is a wonderful place with many beautiful people and places, but also a lot of heavy industry.

Among other issues, it has groundwater and soil that was found to have elevated levels of arsenic nearly 18 years ago that have yet to be cleaned up.

I'm here today because my mom and nearly all of my grandparents died prematurely of cancer. So if you've cared for someone or you haven't cared for someone who has been healthy and then rapidly progressed and died of cancer or helped someone as they took their last breath, I sincerely hope that you never have to. I have too many times, and then I've sat up at night reading about forever chemicals and

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

wondering if the people that $I$ love could and should have been better protected. But if I'm worrying about all of life's everyday challenges, that they didn't have the time, energy, or access to information to know about the risks that have surrounded them.

So if you have loved and lost someone, I hope that you pause to consider that experience and how it's connected to what we're talking about here today and that you consider how you felt or how you would feel, that you try your hardest to make sure that people are not unknowingly and unnecessarily exposed to toxins that could devastate them and their loved ones.

We know that coal ash is a toxic combination of carcinogens, neurotoxins, and poisons that cause cancer, heart damage, lung and kidney disease, birth defects, and premature death, and that they don't dissipate in the environment but persist for generations to come.

I'm here to ask that you worry enough about this issue so that the people most directly impacted by it don't have to lay up at night wondering if the place that they live and love to call home is going to make them or their loved ones sick or if their
environment, workplace, or community is not as safe as it should be.

We must take immediate action to protect families and water and our environment from these dangerous dumps.

Thank you for your time today, and, again, ask that you take your role as individuals with a great level of seriousness and the weight of the responsibility because those who are most directly impacted can't always be here to advocate for themselves or have reliable wifi access in the middle of the workday or maybe because they, too, are trying to care for a loved one dying of a disease as a result of toxic exposure while working full time like I have been before. I care about this and appreciate your time today. Thank you very much.

HEARING OFFICER HORTON: Thank you very much.
We'll move on to Brandyn DeCecco?
And we have a limit. Everyone's comments is two minutes due to the volume of comments today.

Brandyn DeCecco?
Next is Brittney Coats?
MS. COATS: Good afternoon, board members.
Thank you so much for hearing from me today. I am

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

Dr. Brittney Coats. I am a resident of Chicago as well as a professor of biomedical science.

Given that fresh water is less than one percent of our entire planet, it is vital that this board consider the seriousness of the rules that will be implemented this year, of course going into next year. Not only must these rules apply to water impoundments, but we must ensure that coal ash landfills and scatter ash sites are included in these vital rules to come.

It is clear from Waukegan and across the nation's data that coal ash landfills pose a serious threat to not only our groundwater, but, in Illinois, to our environment. Several ash ponds and landfills more directly threat our rivers as well as Lake Michigan.

Board members, please take into account how serious not only the impoundments that are directly in contact with our water, but the coal ash landfills and scatter plots. We need more than simply traps on these coal ash sites; we need direct removal in dry locations.

Thank you so much for your time today, board members. Have a great day.

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

HEARING OFFICER HORTON: Thank you.
Alex Rosen? Annie Dude? Brandyn DeCecco?
Moving on. Carol Juen? Carol Juen?
Next, Cheryl Sommer?
Again, if you're participating via video, you could unmute yourself by pressing the microphone button or the space bar. If you're on the phone, you can press star 6 to unmute yourself.

MS. SOMMER: I'm Cheryl Sommer. Can you hear me?

HEARING OFFICER HORTON: Yes. Please proceed.

MS. SOMMER: Okay. Thank you.
I'm from O'Fallon, Illinois. I'm president of United Congregations of Metro East, a faith-based organization of over 30 congregations and organizations in Madison and St. Clair counties.

Since our inception in 2000, one of our constant priorities has been the creation and protection of good-paying jobs so that our people can have dignified lives. The Prairie State Clean Coal Plant in Marissa was presented to us as a provider of those good-paying jobs. The congregations have members and neighbors who are workers at this plant.

[^23]Now, our public officials tell us that the jobs there must be protected, but while we're told that the jobs must be protected, are our workers protected there? I contend that the answer is no, our workers aren't as protected as they should be, according to the current rules.

Removing coal ash responsibly requires worker protections, death restrictions, and rules about where the ash can go. The draft rules include some strong on-site worker protections, but there are major gaps that must be filled. I raise three:

Dust protection. We need increased monitoring of coal ash dust, so to protect workers and the communities.

Safety and health protection plans. These must contain all and not just some of the needed safety and health measures to limit workers' exposure to ash. What good is it to have a good-paying job if you're hurting your health?

Safe transportation. All transportation alternatives for coal ash removal must be considered, including barge, rail, and very-low polluting trucks, such as electric ones.

> Planning to protect jobs without strongly
protecting the workers is a hollow slogan. So please add strong rules to protect our workers' health.

HEARING OFFICER HORTON: Thank you. Next is Connie Schmidt.

MS. SCHMIDT: Hello. My name is Connie Schmidt. I am the chair of the Illinois chapter of Sierra Club. We have nearly 40,000 paid members here in Illinois. However, with our supporters who signed petitions and action alerts, that number soars to 300,000. Illinois is one of only three states (inaudible). 500 of us were in the house and we celebrated with Senator Bennett on the Capitol steps. Now it is time to ensure that the intent of that law is kept intact with the Rulemaking.

This is an era of closure for coal plants. With the future of Energy Jobs Act passed in 2016 and the clean energy jobs that are in discussion right now with the governor's working groups, we are poised for a clean energy era and the closure of dirty polluting coal plants.

In fact, just yesterday, September 29th, Vistra announced the closure of five more plants here in Illinois between now and 2027. Will these plants be allowed to leave a trail of dirty pollution in
L.A. Court Reporters, L.L.C.
their way after they have made incredible profits and been given subsidiaries by the federal government?

The people of Illinois are desperately concerned about groundwater contamination caused by toxic coal ash disposal at Illinois sites. These impoundments or pounds pollute surface water, groundwater, and aquifers that connect to rivers and lakes, many being the source of drinking water for our Illinois citizens.

Experts have testified to the arsenal of pollutants that threaten the health and safety of our citizens and the ecosystems upon which they depend.

As you work to develop regulations, to implement the intent of SB9, please remember the charge of the Illinois Pollution Control Board to restore, protect, and enhance the quality of the environment in our state. Speaking for average citizens of the Sierra Club and residents across Illinois, I implore you to remember this charge as you (inaudible) requiring coal companies to remove their coal ash responsibly.

Thank you so much for the opportunity to address you.

HEARING OFFICER HORTON: Thank you.

Next is Douglas Ower?
MR. OWER: Good afternoon, and thank you for the opportunity to speak today. My name is Douglas Ower and I'm a lifelong resident of Zion, Illinois. I'm also the group chair of the local Woods \& Wetlands Group of Sierra Club, which covers Lake County, Illinois.

Zion is a neighboring community to Waukegan, and both of these communities are on the shores of Lake Michigan. I am especially concerned about proposed rules that would impact coal ash at the NRG Coal Plant in Waukegan. The Waukegan site and other NRG-owned sites have old coal ash dumps and coal ash fills on-site. The Pollution Control Board has ruled that coal ash dumps and fills are contributing to water pollution (inaudible) of Illinois groundwater quality standards. However, the draft rules only address impoundments and do not include coal ash dumps, fills, and landfills. These coal ash dumps, fills, and landfills also need to be included in the rules and not just the impoundments. After all, these are leaking into Lake Michigan, which is the water supply for millions of people.

Waukegan is an environmental justice
community. It has five Superfund sites, the most in Illinois. There are two facilities that are currently emitting ethylene oxide on nearby Waukegan. Ethylene oxide is a carcinogen. And just a few miles away in Zion, there are spent nuclear fuels stored in 65 dry casks. The proposed rules need to take into account cumulative impacts from all of these multiple pollution sources.

The proposed rules should require that the US EPA's environmental justice green be used to identify EJ communities and should be used to include cumulative impacts.

Many of these Superfund sites and pollution sources are directly on Lake Michigan shores, including the Waukegan Coal Plant. This shoreline has seen a rapid escalation of storm damage and erosion due to historic high lake levels and more frequent and intense storms due to climate change.

My wife and I often walk along the shoreline between our communities and can see the loss of the lakefront. Changing lake water Michigan levels should also be taken in account with rules addressing CCR impoundments. The Waukegan community needs strong rules, especially due to these cumulative impacts of

[^24]pollution.
Thank you very much for the opportunity to speak.

HEARING OFFICER HORTON: Thank you.
And next is Edna Brass.
MS. BRASS: Good afternoon. I am a resident of Illinois, but I'm also a resident who resides in an area where chemical plants stored in their warehouses have negatively impacted the quality of life of residents, some of them for several decades. My personal experience has been that the companies have not held up to their promises, procedures, and processes in regards to keeping the residents and workers safe and healthy. I have witnessed residents die or suffer from chronic, debilitating illnesses.

Although, companies would deny the claim, research and input from medical professionals who treat these residents show a correlation between them and the fact that they directly reside within the boundaries of some of these entities.

Therefore, $I$ have a very difficult time trusting claims from anyone to do what is best regarding the cleanup of the ash dump and seal, increased worker and community protection,
environmental justice, and meaningful public and agency oversight, and that there will be no rollback.

But it is essential that you respect human life in regards to health, safety, and quality of life. I would ask that this board do a better job and be more efficient of doing what is right for both the workers and the members of the community.

Thank you for this time.
HEARING OFFICER HORTON: Thank you.
Next is Frederick Petit?
Ms. Drogan? Charlotte Drogan? Please keep yourself muted.

If everyone can be muted until $I$ call on you, that would be wonderful.

Mr. Petite, please go ahead.
MR. PETIT: Ladies and gentlemen, my name is Frederic Petit and I'm back home from Northern Europe, France. When I came to this country almost 25 years ago to improve my green space, I also discovered that you have established areas where humans cannot go and nature (inaudible) from all basically you are.

THE COURT REPORTER: I don't know what he's saying.

MR. PETIT: But one of the (inaudible) we put
there are (inaudible) as well. For not opening sooner, it is dumping coal ash anywhere. I hope you know about where one day the burned coal waste in the form of coal mine, which, not surprisingly, could fire and keep burning to this day. They even had to evacuate the village, as it is way too dangerous to live there. Sometimes I'm wondering what those people who dump ashes in river may be thinking. Why don't they dump those ashes in their backyard? Don't they go for a walk along the river they have polluted and swim in them?

In saying that it's a normal consequence of burning coal and they should not be criticizing what a benefit (inaudible). I learn in this country that more than anywhere else in the world, when you face an issue, you ask for help and assistance. There is no shame.

I work in IT, and when (inaudible) coals of American miner and some today apparently want to make American miner die again. Coal mining, there's conflict in coal mining accident by making miner sick to death. Coal-fired development of third world countries, but today we have (inaudible). Don't dump ashes where eventually there will contaminate the
water, attack my daughter, pushing this under the rug, making them sick.

Here I think and more people do and there won't be time, in their judgment, about how to ash dumpsters have been treating us. Be smart. Don't dump, don't hide, face the issue, and fix it. (Inaudible.) Also, take your ashes to your backyard and make them held accountable.

Thank you for listening.
HEARING OFFICER HORTON: Thank you very much.
Circling back to Carol Juen?
MS. JUEN: Hello. Thank you for letting me speak and for listening to the public. I had some technical difficulties with my computer. That's why I was late. I am 65. I'm a lifelong member of Illinois. Live here. I'll probably die here. My children are here. This is family for me. And I have grandchildren here.

So I think that these rules that we're writing today should be viewed as a social document, a social contract, with the people that live in Illinois and says that our government and we, as supporters or writers of our government, will not sacrifice the health of our residents on the alter of profit any

[^25]longer, because that's what we've been doing. All this coal ash and everything is about how the corporations could make the profit.

And Illinois needs to be -- I think Illinois, we're working, we're moving forward as a leader in clean energy, and to be known as a state that cares about the people that live here and that we will put them first. This includes people in our marginalized communities, that they're already having burdened the industry and the pollution from the industry more than other parts of the state.

I think that this -- the people that say that including more regulations on the coal companies and everything will hurt our economy and move people out. I think that putting these kind of rules in place is an investment in our state because it will draw here when companies -- the kind of companies and the businesses that we want to come are people that see that we care about our environment, we have places to raise families healthy where they have clean water and clean energy. And that is what we need to be known for, and that's what we need to stand for. We need stricter rules than what Federal EPA has because, as we've seen under this administration, that can be swayed by dollars.

So that is just what I would like you to consider how important this is and it shows what we stand for with the people in Illinois. Thank you.

HEARING OFFICER HORTON: Thank you.
We'll move on to the 12:30 session. And just as a reminder, everyone is limited to a two-minute comment today due to the volume of people who are commenting.

First up is Helen Gesell.
MS. GESELL: Hi. This is Helen Gesell. I'm a resident of Oak Lawn, Illinois. I am also a scout leader. I take kids out, and we do all sorts of thing, or $I$ did before COVID. One of the issues that I have is clean water, clean ground water. When you're camping, we need to know that this is safe for all kids.

Another issue I have is the protection. We need to protect all people, not just the wealthy areas, but the poor areas. And most of the coal ash problems are in areas where the communities do not have the ability to get heard or for work put in or even to be recognized as having this issue.

We, as the United States, need to make

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

sure -- and as Illinois -- need to make sure that we are first in putting our residents ahead and keeping them safe.

So thank you for letting me speak, and I am so appreciative of hearing everything that people are saying. Thank you.

HEARING OFFICER HORTON: Thank you.
Next is J. Gruber.
MS. GRUBER: Hello. I'm a CPA. I have had a career in Illinois, in Central Illinois, and I'm very grateful for this hearing. I want you to know that I have two kids who are basically grown-up; they're in their 20 s now. And my kids have enjoyed hiking here in Central Illinois.

My dad was the son of a coal miner, and my grandfather had terrible black lung and so did all of his compatriots in coal mining. I notice that now my dad was able to get himself and I was able to not go be a coal miner too. Of course I happen to be female. But it's still, the history of coal mining is associated with coal ash, and it is so important that we move beyond that type of economy that is a fossil fuel-based economy. And Illinois deserves clean water. My kids deserve to be able to hike and
enjoy it. And I want it to be that they can come visit when they come back home. And I want it to be a great place to live in Illinois with a good economy and one that is not based on fossil fuels.

Coal ash is a side effect of the coal economy, but $I$ must say that it's very important that we move forward into the future and be who Illinois needs to be. We're in the center of states that do not put the environment first. And I want it to be an attractive place to be, here in Illinois, with a great environment.

Thank you for hearing our comments. We need all of Illinois' waters to be cleaned. It's too beautiful. Thank you so much. Have a great day.

HEARING OFFICER HORTON: Thank you.
Next is Jackie McGrath.
MS. MCGRATH: Hi. I'm Jackie McGrath. I'm a Barrington resident and a member of the League of Women Voters of the Palatine area. The League of Women Voters, a nonpartisan political organization, supports protection of water, land, air, and the safest management of waste products. Coal ash is a waste product from coal power plants and contains deadly chemicals such as arsenic, lead, mercury
thallium, chromium, and other chemicals. These chemicals are known to be dangerous to human and animal health and have no place in our water sources. Coal ash ponds are dangerous when wet or become wet, as the chemicals will contaminate water sources.

The rules must be very clear that the ash is not left in a place which can become wet, and many current sites are at risk from increased flooding. The most stringent rules need to be put in place to clean up current sites, including ash ponds, landfills, dumps, and impoundments.

The League of Women Voters supports that existing coal ash be required to be removed from locations that are close to groundwater, rivers, or lakes, or may be impacted by flooding. We do not support coal ash to be capped.

Additionally, groundwater around any coal ash ponds should be monitored until safe water results are achieved and not terminated by a specific end date. The League of Women Voters Illinois believes that the investment and prevention of danger, such as collapse of coal ash pond or leakage of dangerous chemicals into groundwater, rivers, streams, or lakes, is the responsible and safe approach in order to protect our
water, land, and the health of our communities.
Thank you for this time to speak.
HEARING OFFICER HORTON: Thank you.
Next is James Sullivan.
MR. SULLIVAN: Hi. My name is James
Sullivan. I live in Chicago, Illinois. And I support the strongest regulation for coal ash and any sort of pollution. For too long, corporations have been just burying stuff under the rug like coal ash. We all know the dangers of it. We don't have to keep on repeating that there's arsenic, mercury, and all the rest of that stuff in there.

We need to have them pay for it and not to have the consumers or the taxpayers pay for it. They know how dangerous it is, and it has to cut into their profit. They have to make a plan. And we have to make a plan, and we have to be proactive about it. That's all I have to say. Thank you very much for your time. HEARING OFFICER HORTON: Thank you. Next is Jane Cogie. MS. COGIE: Thank you so much. Can you hear me?

HEARING OFFICER HORTON: Yes.

MS. COGIE: Thank you.
I'm glad to have the opportunity to comment before the Illinois Pollution Board on the IEPA rules for implementing Coal Ash Pollution Protection Act. I speak as the chair of the Shawnee Group of the Sierra Club, but also as a 30-year resident of Southern Illinois, the Carbondale area, concerned that coal ash rules, when finalized, indeed stop the harm caused by toxic waste left carelessly by coal companies to poison our state's waters and nearby communities and natural habitats.

Given the range of toxins in coal ash from carcinogens to neurotoxins to poisons, the public to whom our state's waters belong have the right to expect that rules detail with precision how these toxins will be reined in. I'll limit my comments to two areas where the rules, as currently drafted, allow the toxic impacts of coal ash to continue.

First, greater specificity is needed in rules surrounding how and where coal ash is stored, specifically to assure that it stays dries. Others have commented on that. It's when the coal ash becomes wet, its toxins seep into the groundwater and beyond. I believe the experts will specify the
precise conditions needed to achieve that assurance. The recommendations include not stirring coal ash on a flood plain and storing it at a sufficient height above the highest groundwater elevation. One recommendation cites a distance of at least five feet.

A second point relates to unconsolidated coal ash, such as in piles and landfills that exist at many coal plants. Groundwater monitored at the Illinois CCR landfills were found to contain unsafe levels of toxins, including lead, arsenic, lithium, and chromium, that leaks in from the coal ash piles and landfills. Thus, rules for administering the Coal Ash Pollution Protection Act, to keep it true to its name, must be revised to explicitly address these issues.

Before closing, I want to appreciate -- to voice my appreciation for a few of the water monitoring rules drafted by the IEPA that indeed strengthen the comparable federal rule. One of these rules requires more frequent groundwater monitoring; another requires continued care of contaminated sites by the industry until the groundwater quality meets groundwater protection standards.

In closing, I want to urge the Illinois Pollution Control Board to further strengthen the

Agency's drafted rules through filling these and other gaps and bring to a full stop the contamination of our waters, our communities, and surrounding natural habitats.

Thank you so much for your time. I appreciate it greatly.

HEARING OFFICER HORTON: Thank you.
Next is Kaitlyne Loyola? Kaitlyne Loyola?
Okay. I'll circle bark.
Next is Karen Long MacLeod.
MS. LONG MACLEOD: Hello.
HEARING OFFICER HORTON: Please proceed.
MS. LONG MACLEOD: Good afternoon. My name is Karen Long MacLeod. I am commenting as an impacted resident of Waukegan who lives about two miles from NRG Coal Plant. Thanks to this Board's June 2019 ruling on a $C R$ lawsuit, we know coal ash is causing persistent exceedences at the Waukegan coal plant. We know NRG consciously did nothing to stop or even identify the specific source. No further investigation of historic areas, no additional monitoring wells, no further inspection of ash ponds or land around the ash ponds in the locations that show persistent exceedences.

[^26]15 months later, we're still waiting for action to make NRG clean up Waukegan's front yard. We are tired of waiting for decisive, meaningful action, but we're counting on the strongest possible roles to ensure long-term protection of our water environment.

One, the rules must be clear that coal ash impoundments not be closed in place, so corrective action completed if coal ash remains in contact with the water.

Two, the rules must not allow closure in place of coal ash impoundments in locations where stability is jeopardized.

Three, the rules should address a major source of coal ash pollution, historic landfills, and unconsolidated coal ash fill.

Finally, I urge this board and the Illinois EPA to recognize Waukegan as a priority closure cleanup site. Waukegan is the largest, most densely populated community impacted by coal ash impoundments in Illinois. Waukegan residents have been disproportionately burdened with pollution from this coal plant and five EPA Superfund sites for years. We deserve better.

Thank you for your time.

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

HEARING OFFICER HORTON: Thank you.
Next is Karyn Grace? Karyn Grace?
Kaitlyne Loyola? Kaitlyne Loyola?
Okay. We'll move onto the 12:45 section.
Next is Kathleen MacKay? Kathleen MacKay?
MS. MACKAY: Yes. Is there a way to connect?
I must be busy.
HEARING OFFICER HORTON: We hear you. You can go.

MS. MACKAY: All I see is -- so I am being heard?

HEARING OFFICER HORTON: Yes.
MS. MACKAY: Thank you.
My name is Kathleen MacKay. I live in
Chicago. I'm a lawyer. And right now I'm a Ph.D. candidate in moral theology at the University of Notre Dame.

It is my belief that the government has a moral obligation, through the Rulemaking process you are doing right now, to protect the citizens of Illinois from the effects of environmental damage and injury caused by industrial projects, in this case, the damage to water systems caused by the improper disposal of coal ash. The burden of this cleanup
should fall upon the polluters, not the citizenry. This moral obligation extends to people living now and to future generations.

I am writing my dissertation on the ethical framework behind the Great Lakes Compact. As you undoubtedly know, this legislation is concerned with preserving the integrity of the Great Lakes ecosystem. It has come to my attention that large landfills in Waukegan that are currently storing coal ash generated by power plants are not covered under the rules you are proposing.

As I am sure you know, hydrologic systems are formed by a combination of groundwater and surface water. Water percolating up and down through coal ash landfills contaminate groundwater systems that are directly connected to Lake Michigan.

The protection of the water in Lake Michigan, our revered Great Lake, is a paramount responsibility of lawmakers and government workers in Illinois. Landfills should be cleaned up just as more conventional storage ponds will be. It makes absolutely no sense to exclude them.

Thank you for your time.
HEARING OFFICER HORTON: Thank you.

Next is Kathleen Regan?
I'll circle back.
Kayla Jacobs?
MS. JACOBS: Hi. Can you hear me?
HEARING OFFICER HORTON: Yes. Please proceed.

MS. JACOBS: Hello. My name is Kayla Jacobs. I am the director of programs for the Catholic Diocese of Joliet's Laudato Si' Ministry. That is our environmental ministry.

The objective of our ministry is to protect God's creation and ensure the common good of all creatures, especially the most poor and vulnerable. Because of this, we support strong rules for coal ash in Illinois that protect human and environmental health.

Our diocese consists of 125 churches and over 600,000 parishioners. The hub of our diocese is Joliet, which is also the home to the Lincoln Stone Quarry. We were recently informed that the Lincoln Stone Quarry has tried to contend that these rules do not apply to them because they are considered a landfill by the Illinois EPA.

We are in strong favor of these rules

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

applying to the Lincoln Stone Quarry and that these rules do not provide a loophole for coal ash landfills or ducts.

We know that the quarry had leach contaminants in our water in past. Strong measurements must be put in place to make sure it doesn't happen again in the future. Joliet already has other water issues of concern, including an inadequate supply. We cannot afford to take a risk to damage the supply that we do have.

Additionally, there's other fear that there will be rollbacks of these protections on the federal level. Illinois should set a higher bar, and even if the federal level eases their regulations, we should maintain the strongest protections possible for public health, water, safety, and good air quality.

Thank you.
HEARING OFFICER HORTON: Thank you.
Next is Kelly McGinnis. Kelly McGinnis?
Okay. I'll circle back.
Kristen Ahern.
MS. AHERN: Hello. My name is Kristen Ahern and I am a Chicago artist and designer. I work to educate and advocate for labor, climate, and
environmental issues around the arts, including more work on the national and international level.

Artists are some of the most passionate, involved, hard-working people I've ever met. And I'm not an expert in coal ash, but $I$ am an expert in collaboration and fair labor. One thing I've learned in this collaborative work is the importance of a clear definition of terms for the best creative outcome. This applies to environmental protections also. And I ask that the board ensure that the Rulemaking prevents possible loopholes that profiteering corporations could use to avoid accountability for the pollution that impacts our communities.

Your mission to establish coherent rulings and workable environmental standards that restore, protect, and enhance the quality of Illinois environment. Coherent means that terms such as "temporary" or "removal" have clear, measurable definitions and timelines. Landfills must be added to consideration in addition to impoundments for this ruling for best coherent rulings.

Also of great importance is the protection of workers who are removing and storing. As we have

[^27]learned this year in particular, our essential workers are most at risk when regulations are vague. As someone who sews, I've been forced to become an expert on PPE this year, as I constructed and donated cloth masks to underserved communities.

We know the impact that toxins have on groundwater and direct contact. The Rulemaking needs to ensure specific guidelines for worker protections that polluting corporations provide comprehensive PPE for all workers. Again, clear definitions are essential to protect communities and workers. The companies that profited from this pollution must pay to remove their waste and protect the workers. The Illinois Pollution Control Board is responsible for setting these rules, as corporations will choose when it's profit, not people.

Thank you for your time.
HEARING OFFICER HORTON: Thank you.
Next is Lali Watt.
MS. WATT: Hi. My name is Lali Watt, and I'm a member of both the Sierra Club and the League of Women Voters of Illinois, and I serve on the National Board of the League of Women Voters. But today I'd like to speak for myself as an immigrant, as an

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

activist, and as someone who, back when $I$ was not retired, I was a CPA, and I worked for a Fortune 200 company, one of my responsibilities was setting the on-sheet liabilities for cleanup of Brownfield sites. So I can come at this from both sides.
(Audio interference.)
We had an opportunity to do something that we can be proud of. And I think without fear of contradiction, $I$ can say that this year has been a pretty terrible year for pretty much everybody. So it would be nice if we could get something right and do something beyond the minimum that we can get away with.

There are people who are suffering from environmental injustice, from healthcare injustice, from education injustice, from economic injustice, and they are really struggling to keep their heads above water.

They may not be able to be present at events like this to speak for themselves. So I hope that those of you who make these rules and who can afford to do something on their behalf will look at them as your family members, as your friends, as your children, as your grandchildren, as your neighbors,
and I hope you will think about what you will be considering 20 years from you when you look back and you say, way back then, when $I$ was making these rules, did I do my best to do the best that we know how to do.

People have a tendency to say, well, we did the best we could, but we didn't know any better. Well, we do know better. Let's not go to the lowest common denominator. Let us make sure we are applying the very best thinking that is available, the very best science that is available, the most thoughtful that we can be to actually do the right thing to protect not only our environment but our people and our sense of community.

So I urge you to do the right thing. It isn't enough -- we aren't even allowing like a lot of people to have interpreters or have translations of things, and I urge for those specific things. But I think beyond those specific things, it isn't enough to check the box saying, yeah, we had a translator available. It is important to check the box that says, I did the very best I knew how to do, and I did my very best for the most vulnerable people in our state.

So thank you for giving me a chance to speak
today.
HEARING OFFICER HORTON: Thank you.
Next is Larry Evans? Larry Evans?
MR. EVANS: Hello? Can you hear me?
HEARING OFFICER HORTON: Yes. Please
proceed.
MR. EVANS: My name is Larry Evans. I am a member of United Congregations of Metro East in Madison and St. Clair County. I am on the board. I'm also second vice-president of Gamale (phonetic) of Illinois and Iowa, which involved sister affiliates in Springfield, Moline, and the Chicago Metro area. I live in Glen Carbon, Madison County, Illinois, and I grew up in Northern Illinois near Wood River Creek. Wood River Creek enters the Mississippi River at the East Alton Power Plant location. I hiked, swam, and ice-skated up and down Wood River Creek from farmland upstream to the Dynegy spill reservoir for the power plant. I observed pollution flowing into the water system from raw home sewage to industrial waste seepage, from saturated soil and powering out of pipes. Even as a child, I knew this was unnatural and dangerous.

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

I was introduced at that time to the human problem: How do we humans live safely in the midst of the pollution we create in the business of living? It is with this personal life experience that I address you today. You must ensure long-term protection of our waterways and groundwater by drafting rules which clearly prevent coal ash from ever getting wet, from rain above or groundwater below. Rules must clearly state that coal ash cannot be closed in place if the ash is or will remain wet. Rules must clearly state that cleanup shall not be complete until coal ash cannot be exposed to water.

Finally, rules must state clearly that industries shall not be allowed to install background wells in coal ash-impacted areas.

Thank you very much.
HEARING OFFICER HORTON: Thank you.
I'm circling back to Kathleen Regan?
Kathleen Regan?
Next, Kelly McGinnis? Kelly McGinnis?
We'll move onto the next section. Laurette Hasbrook.

MS. HASBROOK: Yes. Thank you so much. I'm a member of the Sierra Club, which is how I have been

[^28]learning, very belatedly, I'm ashamed to say, about the issue of coal ash pollution in our state. I'm horrified by what $I$ have been learning. I'm a resident of Chicago. I am overlooking Lake Michigan as I speak. And to know that throughout our state there are these horrendous pits of coal ash that are polluting our groundwater is of deep concern to me.

I think we all are aware that our earth is -and our country is at an extremely dangerous point. We need to make tremendous changes if we are to save our earth. I think this is a chance for Illinois to be in the forefront in an environmental issue that is basic and extremely important for the residents of our state at a time when we see nationally environmental protections are being gutted.

I've been listening to the other speakers. I don't need to repeat what they said. It's important for these rules. I echo that last speaker and the speaker before him. Exactly that, we need very strong rules in this spill. We need a continued voice for the public, permanent protections, and a guarantee the industry will take the responsibility, which is theirs, to clean up these sites and make sure that this kind of degradation does not happen again.

[^29]Thank you so much. I really appreciate the opportunity to be part of this and to be learning. Very much appreciate the work of all the groups that are tirelessly advocating for an environment for generations to come, a sustainable, clean environment. Thank you.

HEARING OFFICER HORTON: Thank you.
Next is Lois Kain.
MS. KAIN: (Inaudible) -- that were held leading up to the passage of SB9. I expressed my concerns about the Trump EPA rolling back and even gutting the Clean Water Rule and the coal ash rules set by the Obama Administration in 2015. While these rules were compromised, as with industries, they weren't perfect. They protected more isolated waters, smaller tributaries of streams, wetlands, ponds, lakes, people, and our greater environment. But even these rules were too much for the industry-friendly Trump Administration.

SB9 does not allow the Illinois rule to be weaker than the federal rule. And now with these federal rollbacks, it won't take much to be stronger, leaving coal ash in ponds for years longer, contaminating our water and land.

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

I don't live directly in the shot of $a$ coal-burning power plant or leaking coal ash pond, but I do live downstream, and we all live downstream. In 2011, I went on a tour of Central Illinois Coal Country. We saw mines, mounds of coal ash, power plants, I saw the pollution and contamination and misery created by unregulated coal-burning waste. Our own Middle Fork River is being threatened with massive ruin by rainstorms, flooding, and collapse of the coal ash ponds that line the river.

You're being called on right now to make Illinois, the Land of Lincoln, the leader in the country in how to regulate and clean up these poisons and radioactive substances left in the wake of coal burning. Fresh clean water is precious, and we are running out of it. We cannot wait any longer. Illinois can do this.

Thank you so much for your time today.
HEARING OFFICER HORTON: Thank you.
Next is Maria Peterson?
MS. PETERSON: Yes, I'm here. Thank you.
My name is Maria Peterson and I am a citizen of Lake County and a former U.S. Department of Labor attorney. During my time as a labor lawyer, I
assisted "black lung" claimants obtain their "black lung" benefits from their employers who were coal-mining company owners.

I am making a comment today because I believe in a clean environment and industry accountability, including strong safeguards against coal ash dust pollution to protect workers to avoid a threat to their health.

There must be the requirement of a safety and health plan to protect workers by providing the appropriate PPE for dust and worker protection. When transporting the toxic ash, safe transportation modes must also be within the safety and health plan, to protect the workers transporting this ash and the communities said ash will be traveling through. The safety and health plan must protect workers above and beyond the federal rule.

The companies that own these plants are all headquartered out of state and clearly do not see firsthand the effects coal ash has on the workers responsible for cleaning up and removing the coal ash.

Think back to 9-11. How many first responders have died from complications of breathing dust created by the collapsing towers in New York

City? Further, think how many were denied benefits to pay for their illnesses relating to breathing this toxic dust.

I take pride living here in Illinois, having J.B. Pritzker as our governor. His reliance on science and his quick action to prevent the spread of COVID has kept Illinois COVID cases low. We can and must do the same when protecting the workers who are front and center in removing, transporting, and storing coal ash.

I would also like to remind all of you that this, too, falls under Environmental Justice. We know that 22 of 24 coal ash sites have unsafe concentrations of toxic coal ash pollutants that exceed levels that are safe for occupants.

Providing these workers with the appropriate and safest equipment to protect their lives and the lives of their families will showcase Illinois, once again, on how we take care of our people. Please keep in mind that these workers are often unskilled and come from minority and low-income communities, the same communities these coal ash plants are located in: Waukegan, Marion, Hennepin, Alton, and so on.

Men and women may apply to do this work
L.A. Court Reporters, L.L.C.
because they need to work and they want to work. But it is up to the Board to insure they are working in a safe environment.

I would like to offer the following reminder: "The true measure of any society can be found in how it treats its most valuable members," by Gandhi. I pray that the Board will create a safety and health plan stricter and more robust than that of the federal rule to protect the workers who will be front and center of the cleanup, moving, and storage of coal ash. Thank you.

HEARING OFFICER HORTON: Thank you.
Moving next to Mark Lundholm? Mark Lundholm?
I'll circle back.
Next is Mary Browning Smith? Mary Browning Smith?

MS. BROWNING SMITH: Can you hear me? I'm sorry. I was not -- can you hear me now?

HEARING OFFICER HORTON: Yes. Please proceed.

MS. BROWNING SMITH: Okay. My name is Mary Browning Smith and I live in Palatine Illinois. I was born in Pennsylvania. And in 1959, my mother died of breast cancer. The doctors told my father the cause

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

was environmental. At that time, they based this on information about visits my mother and father had made to various sites as part of his career as a scientist. But, additionally, my doctor's, through the years, agreed due to the fact that my mother's identical twin lived to almost 90 with no cancer.

One of my mother's last trips was to come to Illinois and pick out the house we would move to with my father. My family has lived in Illinois for 60 years. My children, nieces, nephews, great-nieces, and great-nephews have, thus far, chosen to stay in Illinois. I am proud to be a resident of Illinois. I have also thought of Illinoisans as having common sense, caring, and doing the right thing. I think our leaders in Illinois have shown these qualities during the COVID-19 response.

So what I want in your Rulemaking is to show true leadership, common sense, and caring. I want to know that you're going to recommend doing the right thing, not taking the path of least resistance or greed.

Doing the right thing means making sure that coal ash is not allowed to be wet or in contact with groundwater at all. Caring is defining detailed,

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

clear policies for workers' safety. During 9-11, those first responders didn't have time to get what they needed to stay safe. We have time and the know-how.

I believe that transparency and oversight is common sense, but it also leads to trust, something that is in short supply these days.

I want to know you are doing more than what is adequate. I'm not confident that the rollbacks to weaker regulations relate to the health of people or are even based on science. Including coal ash landfills and dumps, in addition to impoundments, makes sense. By leaving them out of the Rulemaking, we are only solving part of the problem.

I'm asking you to show leadership and do what's right. I don't want my daughter to leave her children motherless because we didn't take care of something we know is dangerous.

Thank you.
HEARING OFFICER HORTON: Thank you. Next is Mary Burnitz? Mary Burnitz?

I'll circle back.
Next is Meredith West?
MS. WEST: Hello. Thank you for giving me

[^30]this opportunity to comment on your Rulemaking for coal ash. My name is Meredith West. I am a mother of two teenagers. We live in Chicago just one mile north of the United Center. My family works hard to live in a zero-waste lifestyle. We have an electric car. Our energy supplier is a solar and wind power reseller. We have a garden on our back deck, as we don't have a yard. We have a rain catcher. And we compost. We all became vegetations when we found out that by doing so would reduce our carbon footprint by a third.

So, in short, we reduce, reuse, and recycle in every way possible. We can take all these actions and put forth all kinds of effort, but without your writing and enforcing good, environmentally healthy rules, none of it will keep our water clean.

As a citizen who's doing all $I$ can to protect the earth, I implore you to make the strictest of rules. If you do not ensure that coal ash management and cleanup is done right, our family's water is at toxic risk and so is yours.

Please rule that all coal ash deposits be lined to prevent from leaching into the ground. It's not enough to simply cover the ponds if they are not lined. Please rule that when cleanup happens, the
surrounding areas, back wells, and landfills are tested and all pollutants are removed. It's not enough to remove the coal ash and leave the water polluted. It's not enough to remove the coal ash and endanger the health of those doing the hard labor.

Rules for the removal of coal ash need to include worker protections, safe and complete containment, and deadlines. It's not enough to tell a company they must safely remove the containments and leave it to their own discretion and timelines.

Please be exacting as possible when writing these rules and listen to the scientists who advocate for the water and earth's well-being over a company's profits. Please make rules that exceed the federal requirements, and make sure my family and yours has a healthy environment.

Thank you for your time.
HEARING OFFICER HORTON: Thank you.
Next is Michael Atty.
MR. ATTY: Yes. My name is Reverend Michael
Atty. I am the central director of United Congregations of Metro East here in southern Illinois, in Madison and St. Clair Counties, and we represent congregations of people of faith, of various faiths,
across both counties.
I'm on the call today to implore the committee to do what is right. That those who have power have a responsibility to use that power wisely for the benefit of all people, for the benefit of the poorest among us, the least among us, those who can't afford to get connected on a Wednesday afternoon and comment because they have to work, because they have to do the things to provide for their families.

And so those who are in power have a responsibility to make sure that the working people, the people who do the jobs that many of us can't do or don't want to do, that they are represented, that they are taken care of, that their children and our children have clean drinking water and that they can play in the fields, in the streams of Illinois, without the threat of being contaminated with toxins from coal ash.

So I'm not going to be before you long because many people have already stated the scientific evidence. They stated their own personal experience. But as a person of faith and as representing people of faith, we often draw from our Holy Scriptures and our holy risk to inform what is just and what is God's
justice and what does God require of humanity, as caretakers of the earth and keepers of our brothers and our sisters and to watch over each other.

And so I wanted to leave you this afternoon with this one scripture from the Book of Isaiah. And Isaiah was known as the weeping prophet because Isaiah constantly mourned because of the things that Isaiah witnessed that those in power were doing. And in the Book of Isaiah, Chapter 10, it reads -- and I'll be done after this -- "Doom to those who pronounce wicked decrees, and keep writing harmful laws to deprive the needy of their rights and to rob the poor among my people of justice; to make widows their loot; and to steal from orphans."

So to the committee, I implore you once again to do what is right. Don't make widows your loot, and don't steal from orphans, and don't steal the clean air and clean water from those who can least afford to have it done.

Thank you for this opportunity. And I faithfully hope that you will make the right decision and keep these rules as stringent as possible. Thank you.

HEARING OFFICER HORTON: Thank you.

Circling back to Mark Lundholm? Mark
Lundholm?
Then Mary Burnitz? Mary Burnitz? We think you're on the line, but we are not able to hear you. If you turn on the audio on your computer.

I'll circle back to you at the end, and I'll move on to the 1:15 section.

Mildred Leonard?
MS. LEONARD: Hi.
HEARING OFFICER HORTON: Yes. We can hear you.

MS. LEONARD: I'm from Waukegan, Illinois, and we have a coal-burning power plant here, and the coal ash needs to be removed. I understand there's five ponds, and I'm upset to learn that two of those ponds aren't even lined. That facility, that power plant, has been there for a hundred years.

Now, there has to be literally tons and tons of coal ash, and that stuff causes heart problems, carcinogens. And I know, because I've lived up here now for 26 years -- I'm retired from the IBEW Local 134 -- that this stuff literally poisons people for generations. I've had neighbors with exposure to asbestos and PCBs. I'm 74. They're my age. Their

[^31]fathers work in these plants. They marry people who worked in these plants. And guess what? Their children and grandchildren have carcinogens.

This stuff has to be removed; it has to be removed carefully. And, in my opinion, the workforce needs all of the protective equipment that's necessary. There should be penalties for any foreman or manager who tells them it's okay, you don't have to use it, or we don't have your size today.

My background is union. I would strongly suggest that they participate in something. I don't care if it's the Teamsters or United or the IBEW; someone is going to have to protect them.

And how this stuff is removed, when it's made back into a powder form and they take out the water, how is it going to be transported from the plant? Are they going to just throw it in a truck with a tarp over it and expose everybody again?

I'm extremely concerned about the safety of the workforce and the population. It has to be removed safely. There has to be penalties because the people who created this for a hundred years obviously didn't care about the workforce.

And the other thing about the law which is
difficult, if you refuse the direct order from a foreman or a manager, you can be fired. You can say, hey, you're supposed to give me the mask. But guess what? The law says that danger must be imminent. In other words, if you pick up a 600-volt line that's not properly grounded, you're going to get killed that day. But this stuff doesn't kill you that day. It kills you and your family over a period of 20, 30, 40, 50, maybe even 70 years. That's three generations of people exposed to carcinogens.

There has to be a penalty through law, and it's my opinion, we're a very diverse population here; the people should get paid good money; they should be in some kind of organization that will protect their safety. If they're not in an organization to protect their safety, they're going to get leaned on by these foremen and managers. They're going to be told, oh, it's okay, we don't have your size, we don't have those gloves, we ran out of the -- it's not okay. And if you disobey them, they're going to fire you.

There has to be somebody to fight for you and to protect you and your children, because the danger isn't imminent. I assure you I know people who have been suffering from cancer and stuff for two and three
generations and it's terrible.
The good thing is, if these people have union safety committees, they can protect each other from a danger. I used to be a steelworker before I was IBEW and built the St. Louis Arch, and not one steelworker died building that arch. They told us they had put in a factor about how many people were going to die, and they added it to the bottom line. And we said, oh, we want a safety committee. (Inaudible) I assure you we built the St. Louis Arch back in the ' 60 s and not one steelworker died doing that.

So that's my point here, is this stuff is very dangerous. We saw it here for generations. It's outrageous. And the people who created this mess have to be forced to account for it, to pay for it, and to see that it's removed.

Thank you.
HEARING OFFICER HORTON: Thank you.
Moving on to Miriam Scott? Miriam Scott?
Next, Nancy Long?
Miriam, you are there?
MS. SCOTT: Yes.
HEARING OFFICER HORTON: Go ahead, Ms. Scott. We can hear you no problem. You can proceed.

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

MS. SCOTT: Okay. Great. Thank you.
My name is Miriam Scott. I'm a long-time Buffalo Grove resident. I'm also a long-time resident of Chicago South Loop, living within walking distance of Lake Michigan and the Chicago Rivers. As you can imagine, those bodies of water are very important to us. And also, as you know, we, in the Chicago area, get our drinking water from Lake Michigan.

I'm concerned about the potential long-term effect of toxic chemicals which seeps into our water from improperly secured coal ash deposits.

I'm a cancer survivor and have lost many friends to cancer, a much younger friend who hailed from Chicago's southeast side, a long-time dumping ground for landfills, filled with toxic chemicals. Lost her parents and siblings to cancer, no doubt, due to the toxic waste that more affluent and influential communities would not tolerate.

My health, the health of my family, and the health of my community, while all over our state of Illinois, is ultimately more valuable than any financial benefit claimed by corporations or even government.

When we poison our environment, the cost to
our body for damaged health and lost lives must exceed any financial gain that corporations and our government might claim.

Therefore, $I$ strongly urge you to adopt the strongest rules possible to assure safe removal of all coal ash, including for landfills, to secure repositories within a reasonable and prompt set schedule.

Thank you for this opportunity to comment on this issue of assuring safe coal ash removal and disposal. Thank you.

HEARING OFFICER HORTON: Thank you.
Next would be Nancy Long? Nancy Long?
Next is Nathan Griffith? Nathan Griffith?
I'll circle back.
Next is Nicole Jack?
MS. JACK: Hello.
HEARING OFFICER HORTON: Yes. We can hear you. Please proceed.

MS. JACK: My family and I live in Waukegan, and we are nine miles from the NRG Waukegan Generating Station. The Illinois Pollution Control Board agreed with the environmental groups in their lawsuit against the Midwest Generation. The IEP CV agreed with the
assessment that the coal ash at the power plants have arsenic, boron, sulfate, and other chemicals that exceed the water quality standards. I am grateful that the Board was able to see through these polluters who only care about the short term making profit, not considering the impact on the environment and future generations.

I truly hope that the Illinois Pollution Control Board will make NRG remove the coal ash dumps and they will be properly stored in safe facilities. It is very concerning that these dumps will not be covered, by the Illinois EPA (inaudible).

And a bit of a side note, but with -(inaudible) water supply due to said potential scarcity of water, we should do everything possible to protect our fresh water.

Thank you.
HEARING OFFICER HORTON: Thank you.
Next is Rebecca Ratliff.
MS. RATLIFF: Hello. My name is Rebecca
Ratliff. As a resident of Chicago, during my six years in Illinois, I have been fortunate to not experience the most direct effects of the pollution caused by coal ash. Unlike many of the others here, I

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

do not have a personal story of how it has affected my life or those of my loved ones. However, I cannot stand by while I know that so many of my fellow Illinoisans are being directly hardened by the reckless and myopic storage of coal ash that is infiltrating our groundwater and poisoning the soil.

For too long our energy feed has been obtained with little thought to the damage that the waste will cause, whether the waste is in the form of excess carbon dioxide in our air or coal ash seeping into the ground.

As we continue to phase out the use of coal in Illinois and for these plans which are still operating, we must have rules in place that ensure the waste product of this energy does not do any more damage to our land and water.

I will be explicit in my message that a cap over these ponds, which are usually not properly lined, is not enough. And as we work to transfer the coal ash out of these ponds, the workers responsible for doing this must be protected. I understand that this is not necessarily an easy task, but it is a necessary one.

I was excited when I learned of the passage
of the Coal Ash Pollution Prevention Act. It was a long time coming, and $I$ know how hard all the environmental champions worked to get this done.

So I ask that in this process of Rulemaking, these rules be strong and comprehensive when it comes to protecting our communities all across Illinois. I call on the Board to remember and uphold their stated mission, which is to restore and protect the environment.

Thank you.
HEARING OFFICER HORTON: Thank you.
Nathan Griffith? Nathan Griffith?
Moving on to the 1:30 section. Samantha Himegarner? Samantha Himegarner?

Next, Sheila Voss. Sheila Voss?
I'll circle back.
Next, Stephanie Juen? Stephanie Juen?
Next, Susan Pastin? Susan Pastin?
Next, Thomas Kelly?
MR. KELLY: Hello?
HEARING OFFICER HORTON: We can hear you. Please proceed.

MR. KELLY: Thanks for this opportunity to express my opinions and support in fixing the coal ash
problem in Illinois. I am a former state development officer for the American Red Cross, which is a fancy title for fundraiser. I came in contact with contaminated water almost every time $I$ went to work on a job, whether it be a flood, a Texas hurricane, or a sewer backup in Matteson, Illinois. Natural disasters occur, but they can be mitigated.

The mission of the Sierra Club is
essentially, as far as the environment is concerned, to protect us from us. We know that coal ash from coal power plants which has threatened our water supply. Coal ash is toxic. (Inaudible) access to our water supply. We see how it adversely affects our community, health, and well-being. Clean water is the goal. Encouraging power plants and even our own government warrants regulation to keep us safe.

Something I didn't realize was that Illinois imports coal ash from other states and leads the country in coal ash damage court cases. The encouraging thing is that we are presently cracking down on pollution in Illinois, thanks to our state government, organizations like Sierra Club, which I support.

Our responsibility requires a comprehensive
plan, public transparency, and enforceable regulations, which it appears is what you're doing today.

Thank you.
HEARING OFFICER HORTON: Thank you.
Next is Virginia Husting?
MS. HUSTING: Hello. Hi. I'm Dr. Virginia
Husting. I'm a professor of sociology. I'm from Champaign, Illinois. Thank you, Pollution Control Board, for listening to the Illinois public. As Lali Watts said earlier and others have, we can get this one right. How this process goes will directly affect who stays in Illinois, who our voter base is, who our tax base is.

My family and my friends in this area are just waking up to what's literally encircling us. People like us all over Illinois are waking up. There will be more and more of us over the coming weeks and months. We're, frankly, scared at the threat to life and land that literally surrounds us from Waukegan to Marion, from Prairie State to Duck Creek. The one closest to me is Dynegy's retired coal plant. As we speak, it's leaking sulfate and boron into the middle fork of the Vermilion River. You can see the ash

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

pollution in the groundwater there. And this is Illinois' only national scenic river.

We're watching. We're concerned. And so I'm voicing here what others are pointing to, and we speak on behalf of colleagues who are working right now, family and friends who are involved in daycare and child care for their children.

But what we want is no wet ash. We want groundwater monitoring with no time limit. We want safe removal and storage. We want public transparency, clear measurable standards, benchmarks, outcomes, processes. Companies must share their documentation so we can see what's going on and what has gone on. We need protection for workers. We need rules, processes, remediations stronger than the federal standards. Corporations can't just pollute and walk away. We don't have these right now.

Our stewardship in this, frankly, amazing state -- and we rarely talk about it -- calls us in this work. No pollution of our rural companies, our water, and our ecosystems. They're invaluable and irreplaceable.

Thank you for the opportunity to speak.
HEARING OFFICER HORTON: Thank you.

Next is Virginia Woulfe-Beile.
MS. WOULFE-BEILE: Hello. Thank you. My name is Virginia Woulfe-Beile, and I live in Godfrey, Illinois, and I'm thanking you now for the opportunity, as public process is an important part of Rulemaking as it's an important part of our democracy.

I commend the Illinois EPA for including protections beyond the federal rule in the manner of more frequent groundwater monitoring beyond the 30 years and a health and safety plan for workers. But Illinois can do better.

I live in a transitioning coal community. The Wood River Dynegy plant closed in 2016 . There was no industry-led transparency for workers or the community. So this was during the closure or the demolition stage with commercial liability partners.

So I am part of an advocacy group that has been meeting since 2014 imploring Dynegy and then CLP for transparency and public process. We had no success.

Workers, municipalities, and entities benefiting from the taxing implications were left high and dry. I wish I could say the same thing for the coal ash impoundments.

So these impoundments have been threatened by flood waters several times in the past ten years, as they are adjacent to the Mississippi River and Wood River Creek. Coal ash should not be in flood plains and that just makes sense. No cleanup is complete until the ash is no longer exposed to water. And baseline wells for groundwater monitoring must be placed outside of impacted areas because only clean water can establish a baseline.

Coal ash fill and dump sites as well as impoundments must be included in the rule, otherwise, the problem is not solved. Workers must be protected by limiting exposure to coal ash during handling and transportation. The need to access to proper PPE and dust monitoring must be in place. Also, rail barge and electric or hybrid trucks need to be considered for the transportation of ash.

We must use the US EPA's EJ screen with the clean power plant to identify vulnerable communities. Then interpreters must be provided at meetings, and literature must be translated for non-English-speaking communities. And a 30 -day review is needed for the supporting documents because 14 days is just not ample time.

Power plants are being closed all over the state, and we need strong rules that keep everyone safe and holds corporations accountable. I don't want to see a repeat of what happened at the Wood River plant. Independent oversight and financial assurances that stay with the property is the only way that we can make polluters pay.

So Illinois needs to be a leader in coal ash protections and not cave to federal rollbacks. So thank you very much for this opportunity to speak.

HEARING OFFICER HORTON: Thank you.
Next is William Koehl? William Koehl?
MR. KOEHL: It's William Koehl. Thank you.
HEARING OFFICER HORTON: Sorry. Please proceed.

MR. KOEHL: Can you hear me now?
HEARING OFFICER HORTON: Yes. Please proceed.

MR. KOEHL: All right. Thank you. My name is William Koehl. I live in Geneva. I'm with the League of Women Voters of Illinois. I was born in Joliet and I raised my family there. I knew we had a power plant and I thought I knew what it did, but I only knew part of the story. It created a lot of

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

electricity, but it also created a lot of coal ash. I had no idea about what that would mean, at least not until 2008, in Tennessee at the Kingston Plant.

Now the whole world knows what a disaster coal ash could be. But still, I had no idea how toxic it could be even if it was just sitting still. I believed the word is "leachate." Coal ash plus water from anywhere, from above, from below, from around the bend: Leachate.

Like most states, I thought that with both federal and state laws this would be taken care of. I did not know it was going to be dependent on just how well the rules were written. I believe that there's some serious shortcomings with the current draft, and these have been detailed extensively in earlier testimony today and last week.

I'm here today on behalf of all the rest of the citizens of Illinois who do not yet know anything about coal ash, how toxic it can be, how much of it there is, for how long this will be a problem.

I'm asking you to write the strongest rules possible, and to cover coal ash in all forms, no matter where it's hiding or what it's called, to protect workers who have been living with this toxic
mess until it's been cleaned up, for communities who have been and will be living in with this until it's been thoroughly contained. And most importantly, the strongest rules possible for our children and our grandchildren and for their children, for their grandchildren, for decades and centuries to come. It is necessary to enact the strongest possible rules in every instance, and it looks now like the only thing that can make this happen is the valiant work of the members of the Illinois Pollution Control Board.

Now, when $I$ wrote that last line, I looked for an alternate to the word "valiant"; it seems a little old-fashioned. Guess what I found? Fire-eating. Seems appropriate given the topic. So let me restate: The only thing that can make this happy is the fire-eating work of the board members of the Illinois Pollution Control Board.

Thank you, and good luck with your efforts. Thank you for letting me speak here today.

HEARING OFFICER HORTON: Thank you.
Next is Criage Lynette Alrhage.
MS. ALRHAGE: Hi. It's Criage. I'm a trans woman, so it's confusing.

HEARING OFFICER HORTON: Apologies.

MS. ALRHAGE: I don't live very close to any such facility that $I$ know of. I live close -relatively close to Little Village, which had a coal plant which was disassembled. But I don't know what lies beneath the ground. Who knows.

I know that coal ash contains several horrible things: Mercury, cadmium, and arsenic, as well as it's been found to have radioactive properties to it which can cause as much damage as nuclear waste. And I have heard where they have tried to use coal ash as a landscaping landfill, which is a ridiculous thing that seems to be inviting something like a Love Island. And whether that's happening in Illinois, I am unsure.

But certainly the EPA and this board need to be aware and we need strong controls to make the coal companies to be financially responsible for all of this. I don't whether I trust them to actually enact the safety measures themselves because corporate oversight is usually lacking. So I think this has to be done by government employees with full protection, as it's been mentioned before.

I think what happens often where this is stored is close to communities of color, whether
that's Little Village, Pilsen where there was a coal plant. And I think there are also barges that contain -- that are just, you know, held up at dock around the Chicago River that contain some of this, and it's still a threat, whether it's there. Some of it has been uncovered, so rain can probably leachate or, you know, have that runoff into the river.

Whatever the case is actually, true or not, we don't have safe measures right now and we need those safe measures, and $I$ call upon you guys to enact them. And that's it.

HEARING OFFICER HORTON: Thank you very much.
Next is Megan Dutton? Megan Dutton?
Next is Virginia Wojtkowski.
MS. WOJTKOWSKI: My name is Virginia
Wojtkowski I'm a retired special education teacher. My husband and I live in rural Washington County near Venedy, Illinois. We used to live very near the Prairie State Energy Campus. The coal ash pit and landfill that was built on the PSG campus adds more coal ash each year than some impoundments do over an entire lifetime. It is now the second largest coal ash landfill in Illinois, and it's only been in operation for ten years. How much more will there be

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

by the time that plant is retired?
Illinois has over 80 individual coal ash dump sites and landfills. Most of them are unlined. Almost all of them are located near rivers and lakes to simply make life easier and cheaper for the power plant facility.

The Kaskaskia, one of the longest rivers in this area, is quickly becoming the river with the most coal ash, as there are over four coal ash ponds and other pits at Baldwin and there's a rapidly filling coal ash landfill at Prairie State.

And, of course the Kaskaskia is not the only one of the rivers and streams that are impacted. We are a water-rich state and we are poisoning our water and thereby our land, and thus we grow our food. Thus we poison ourselves and our children and our grandchildren.

How much poorer will our crops and water supply become over the years if we do not fix this problem? And we need to fix it without loopholes. We cannot depend on the energy companies to take care of the problem. Past actions have shown unequivocally that facilities cannot be taken at their word or trusted to fully comply. The companies themselves
will not last as long as the pollutants that are being stockpiled and invading soil and water.

We have to require owners to set aside money for cleanup and rehabilitation of impacted lands and waters and to clean up old sites that are no longer in use. And now that $I$ heard it here, we have to get them to stop importing it. If we don't, the taxpayers will pay for it in economic growth, increased taxes, and money loss to major health crises.

Thank you for the time.
HEARING OFFICER HORTON: Thank you.
And the last person I'll call on today is Sheila Voss.

MS. VOSS: Great. Thank you very much for the opportunity.

So my name is Sheila Voss and I'm a resident of Edwardsville, Illinois. Specifically, I live on the outskirts of Edwardsville in unincorporated Madison County on the periphery of Wood River. So even more specifically, my home is exactly nine miles from the 100-plus acres of coal ash impoundments in Alton, a residual impact left behind by the Wood River Power Plant that had its closure in 2016.

I know I have less than three minutes today.

I will not duplicate what has already been well covered in these hearings. The data is clear; the science is clear; the math is clear; the engineering and technology solutions are clear; any place where coal ash is stored improperly is a direct threat to public health, a direct threat to environmental health, a direct threat to the economic recovery and revitalization of communities. The very same communities that were left behind and abandoned by the companies that produced the coal ash waste in the first place.

I will dedicate the remaining time that I have to a story that reinforces a simple invasive message applicable to each and every one of us today. Specifically, I'm really directing this message of this story to the individual members of the Illinois Pollution Control Board. You, of course, are not a nameless, faceless body. You're real life humans and citizens just like everyone on this call. So I'm directing this and sharing this with you.

And basically, the simple and basic message/story shares a theme that resonates today and every day. To paraphrase Maya Angelou, "When you know better, do better."

This past year, my 14-year-old daughter, along with a fellow girl scout from Girl Scout Troop 110 here in Edwardsville, embarked on their Silver Project together. The name of their product: "Streams Need Love Too." They chose a nearby first-order stream in their neighborhood, an unnamed stream, but one that flows into nearby Cahokia Creek and ultimately the Mississippi River. They closely studied this stream over multiple seasons. They documented wildlife in this stream, pollutants in this stream; they did trash cleanups along this stream. These two 14 -year-olds surveyed 30 separate landowners along this stream, documenting their current awareness and practices as it relates to this fairly unremarkable stream, sometimes called a ditch, sometimes that has a lot going on underneath the ground that you can't really see. But this stream that flows through their properties and that flows alongside other different streams that ultimately joins up with the Mighty Mississippi.

They have been researching this, these girls, as well as reaching out to subject matter experts in stream ecology and land and water conservation. They have learned much throughout this process. They are
doing their best to share what they've learned with local landowners with the intent to change homeowner behaviors such that it lessens damaging runoff and other inputs into this stream so that they're reduced or eliminated.

They're also currently organizing
neighborhood outreach and action days dedicated to stream restoration, including native plantings, surveys, and, yes, recruiting landowners themselves to participate in creek cleanups.

All I'm asking of the adults in the room today is to follow the lead of these young women. Thanks to good science and publicly available data, like what has been compiled in the Cap and Run Report released in 2018, we know better now about the impacts of our fossil fuel-based energy choices. Clearly we know better. The Illinois EPA knows better. The Illinois Pollution Control Board knows better. Vistra Energy Corporation and other industry players know better. Citizens know better.

All I'm asking is that we follow the lead of Girl Scout Troop 110 and do the right thing. Step up, take responsibility, and get this done right. The hard work to pass SB9, while impressive and a
milestone for the State of Illinois, was not enough. The problem of coal ash is not yet solved. The problem of coal ash is, at this very moment, polluting local lands and waters.

Closing and cleaning up coal ash the right way now lies squarely in the hands of the humans and fellow citizens that serve on the Illinois Pollution Control Board, the members of which must adopt, as multiple speakers already said, the strongest rules possible to protect our public waters.

None of us can turn back the clock and undo our dirty energy past, but each of us, however, can do what we can to clean up our mistakes the right way, as we should, to a clean energy future, a future that our generations ahead of us deserve.

Thank you so much for the time.
HEARING OFFICER HORTON: Thank you.
And thanks to everyone who participated today at this Public Comment portion of the hearing. We will have another tomorrow, October 1st, from 5:30 to 7:00 p.m., the same format, but it will be via WebEx only.

On behalf of the Board, especially on behalf of the Board Members, Chair Barbara Flynn Curie,

Member Anastasia Palivos, Member Cynthia Santos, and Member Jennifer Van Wie, we thank all the members of the public who have given their comments here today. MS. BUGEL: Can I interrupt? I did learn that Mary Burnitz has been trying this whole time to get in. She's having technical difficulties.

HEARING OFFICER HORTON: Can she try again
tomorrow during the evening?
MS. BUGEL: I will ask. Before we completely close today, I wanted to make sure we've done everything we can.

HEARING OFFICER HORTON: I know. I called on her several times and she wasn't able to get in. She's certainly welcome to go on tomorrow.

MS. BUGEL: And I apologize for interrupting. HEARING OFFICER HORTON: But thanks to everyone, and we'll pause here for a brief break, and we'll begin again with Richard Gnat's testimony.

Thank you.
(Whereupon, a break was taken, after which the following proceedings were had:)

HEARING OFFICER HORTON: Hello. We're back. This is Vanessa Horton in the Thompson Center. Before

[^32]we begin with Richard Gnat, Faith Bugel here had a point to raise about one of the exhibits.

MS. BUGEL: Yes. Thank you, Hearing Officer.
In the course of questioning Mr. Gnat, I referenced an attachment to our pre-filed questions, which I believe was an annual groundwater monitoring report that had an alternate source demonstration attached to it for Powerton.

I have since discovered that, when we filed our pre-filed questions, that attachment was missing. So I would like to resolve that by simply asking for leave to submit that, file that late, and make sure that that gets into the record consistent with it already being admitted earlier today.

HEARING OFFICER HORTON: And I think in situations like this -- and let me confer with Marie when she gets back -- that we -- if something has been submitted to the clerk after the 24 -hour period, then that becomes a public comment and not an exhibit.

But if I could defer my decision on this until after perhaps the break this afternoon and then I can get back to you on that.

MS. BUGEL: Okay. Very good. Thank you.
HEARING OFFICER HORTON: Mr. Gnat, are you
there and ready?
THE WITNESS: Yes, I am.
HEARING OFFICER HORTON: Okay. Great.
So we'll pick up again with you and
Ms. Bugel's questions to you.
THE WITNESS: Okay.
BY MS. BUGEL:
Q. Mr. Gnat, you're not showing up big on our screen yet. Wait a minute. I see you there.

Where we left off questioning this morning, I believe we were talking about measurements of groundwater elevations, and you had mentioned a larger flood event in responding to one of my questions.

Do you remember that discussion?
A. Yes, I do.
Q. So my question is, if there were a larger flood event but it did not coincide with the timing of a quarterly groundwater elevation measurement, how would you know that you need to consider it in terms of its effect on groundwater flow?
A. I believe I also stated in my previous discussion that, at that point, if the initial measurements were used and you've got a good groundwater model established, that groundwater model
can be used to provide some good predictions as to what the impact surrounding the groundwater system.

But also, if you had a larger flood event and you look at your groundwater monitoring data and you see some anomalies or some changes in that, that you look closer and evaluate what that impact might be and determine what needs to happen from there.
Q. With -- you referenced anomalies in that response. Can you explain more what those anomalies would look like?
A. Sure. Part of when we look at groundwater data, quite honestly, it's not just looking at statistics and individual parameters, which are used as the triggers here, but you also look at time trends, the detection of the constituents that you're seeing on a particular well, are they consistent with what you've been seeing historically. You know, just kind of looking at the trends and the street of parameters that you're seeing.
Q. Okay. Let me rephrase.

Off-site pumping can have an effect on groundwater elevations at a site; is that right?
A. That is correct.
Q. So could a change in off-site pumping lead to
a change in groundwater elevations at a site?
A. Yes, it can.
Q. I'm sorry. I'm having a hard time reading my own notes here because I've scribbled in the margins. Can groundwater elevations be affected by liquid escaping a pond?
A. I'm sorry. I couldn't understand the last part of your question. Can you repeat it, please?
Q. Yes.

Can groundwater elevations be affected by liquid escaping a pond?
A. If I heard you right, you're asking can groundwater elevations be affected by liquid escaping a pond?
Q. Yes.
A. They may be.
Q. So if there were damage to a liner such that you had a leaky liner, that could affect groundwater elevations; is that right?
A. It may affect groundwater elevations, but I would imagine we would also see it in groundwater chemistry.
Q. Okay. I think I'm done with that line of questions. We can move on. I just need to follow my

[^33]own notes here.
I'd like to turn to page -- I think we were still on Page 31. People still may have it open or not. Following up on Question 10-A, as in apple?
A. Yes, I have it in front of me.
Q. And I'm looking at your response where you -right in the middle of your response, you have a sentence that begins: "My testimony is not suggesting removing the primary signature suit of $C C R$ constituents."

Should that read "suite"?
A. Yes.
Q. So can you tell me what, in your view, is the signature suite of CCR constituents?
A. I believe in my testimony, we had it footnoted as the Appendix 3 parameters and the federal CCR Rule.

I take it back. It's on Page 21 of my answers to questions.
Q. Got it.

So can you tell me then, if you stop monitoring for other constituents beyond the Appendix 3 parameters from the federal rule, and then there is a release, how do you determine the

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

constituents that may be part of that release?
A. In terms of a release, can you define release? A release from the impoundment?

## Q. A release by impoundment?

And by "release," I mean leaking or leaching
from the impoundment.
A. Sure. First off, I'm not proposing to eliminate all the other parameters that are not in Appendix 3. Within any particular site, there may be a handful of them, two, three or four, five, who knows, a handful that, if you do a waste characterization, as I suggested in my testimony as perhaps a part of developing an appropriate monitoring program, well over the course of four or five years of monitoring, those are consistently non-detects, that there may be a mechanic of which you can reduce that. So I'm not certainly suggesting that everything gets eliminated except Appendix 3 parameters.

But if there is a release, a hypothetical release from an impoundment, I believe there are several things that are going to happen. The first thing, we're not just going to -- we will see evidence of the release within some of those Appendix 3 parameters themselves, possibly within some of the
other parameters that we'd also be monitoring for, and once a release, say, is determined that it has occurred, then you're kicking into assessments, and, yes, then you analyze again, then go back in and analyze for that full suite, make sure nothing else was missed, and move from there.

But then at that point, you're, again, looking at that full suite and starting that process from there and evaluating the nature, extent of that release, and then the engineers, of course, take over with their corrective measure study.
Q. And I'd like to follow up on Question 10-C, and that's on Page 32. That's $C$ as in cat.
A. Yes, I have it in front of me.
Q. Your response, starting about a line and a half down, says: "If there's a change in items such as coal feedstock, combustion processes, and/or CCR material handling, then the monitoring program would need to be re-evaluated to take any potential changes in chemistry into account within the monitoring system."

And what I wanted to ask is, does the proposed rule, in its current form, have --
(Audio interference.)

MS. GALE: Can you start that again? Last I heard was: "Does the proposed rule." BY MS. BUGEL:
Q. Does the proposed rule, in its current form, provide the -- does it have requirements that provide for this to be taken into account the way Mr. Gnat proposes?
A. In its current form, it hasn't -- there's a section in the current proposed rule which suggests to take some leachate characterization and analysis into account for engineering and corrective measures purposes.

Within my testimony, I suggested that that's actually a good idea that that can also be used for evaluating the list of parameters that you're analyzing in your groundwater monitoring program. So that that can be very useful in streamlining that as well.

So in that sense, yes, there is some language within the rule that will facilitate that. One of the things that $I$ suggested within my testimony is that waste characterization actually put in a rule as being allowed, if a particular operation chooses to do so, to be able to establish their groundwater

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

monitoring parameter list based on waste characterization of the leachate within the impoundment that's being monitored.

So that was certainly within my testimony and one of the suggestions that $I$ had in allowing some of that leeway in developing a groundwater monitoring program as opposed to just a one-size-fits-all for all $30-\mathrm{plus}$ years.
Q. Moving on to $10-\mathrm{F}$, as in frank, on Page 32, you indicated that the benefit -- and this is the last two lines on this page -- the benefit to streamlining a groundwater monitoring program is in reliable detection of any actual release from a CCR surface impoundment.

## Can you explain how streamlining would

 accomplish this?A. Sure. One of the examples I gave in my testimony and in my answers, rather, to questions on my testimony were, you're analyzing for all the parameters for $30-\mathrm{plus}$ years. There's a handful of them that you never detect. And all of a sudden you have a parameter that was not detected, say, for 12 years at a particular monitoring point, it's never been detected before. You don't -- if it's a waste
characterization, say it wasn't in the waste. But all of a sudden you get a detection of that parameter. That detection automatically, since it's a non-detect, becomes a statistically significant increase.

It then triggers -- under the current proposed rule, you have 90 days in which to start an assessment of the evaluation of the nature and extent of that release. You may or may not choose to do an alternate source demonstration, and within 90 days, you're looking at a corrective measure study, all because of that one detection.

Within the current proposed rule, you don't have the ability to wait and do another quarter of sampling to make sure that that was a valid detection even if it showed up again in confirmation sampling. And I believe there's a -- even within the unified guidance that covers situations like that, indicates that, I believe it's called "duplicate quantification," where the next quarter you go out and you resample that again and you do another verification sampling again. Right now under the current rule, that doesn't happen.

So under that particular instance, you've triggered a lot of actions for something that you have
no other way to deal with except for initiating all of these additional actions.

So that's what I refer to as streamlining the program to try and not be in that situation.
Q. Would your proposal streamline the program in the opposite respect? And by that I mean a hypothetical where you have non-detects at a time when there might be a constituent that is appearing in the groundwater?
A. I'm not sure I follow your question. Can you restate it or rephrase it?
Q. I guess the example you just gave was the example of a false positive; is that fair?
A. Yes.
Q. Does your streamlining also protect against false negatives?
A. Yes, I believe it does because you're analyzing for all the other parameters which are constituents of that ash, and if you're not seeing any increases in any of those other parameters and/or look at them and there are no increasing trends of those parameters regardless of whether or not we had a statistical increase or not, but if you look at trends, you're not seeing all those. You know, you

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

have to look at the dataset as a whole and you can't just get focused in on one constituent.
Q. Can constituents be attenuated in the aquifer slowing their movement toward a monitoring well?
A. They can. However, the current regulation as written our monitoring wells are installed at the waste boundary.
Q. Can contaminants be transported in the groundwater at different speeds depending on their chemical-specific characteristics?
A. They may be.
Q. Can chemical-specific characteristics affect absorption?
A. They can.

MS. BUGEL: And I think that is all the questions that $I$ have. Thank you.

HEARING OFFICER HORTON: Okay. Moving on, we'll go to City of Springfield. Did you have any questions for Mr. Gnat?

MS. WILLIAMS: I do not.
HEARING OFFICER HORTON: Mr. More, any questions for Mr. Gnat?

MR. MORE: I do not.
HEARING OFFICER HORTON: Ms. Brown, any
questions?
MS. MELISSA BROWN: Not at this time. Thank you.

HEARING OFFICER HORTON: Ms. Manning, any questions?

Ameren? Ms. Manning, any questions for this witness.

MS. MANNING: I do not. Thank you.
Attorney General's Office, Mr. Armstrong, any questions?

MR. ARMSTRONG: No questions. Thank you.
HEARING OFFICER HORTON: Pollution Control Board Technical Unit, any questions, Mr. Rao?

MR. RAO: No questions. Thank you.
HEARING OFFICER HORTON: Any follow-up questions for Mr. Gnat?

Hearing none, thank you, Mr. Gnat. You are dismissed.

THE WITNESS: Thank you very much. (Witness excused.)

HEARING OFFICER HORTON: Then we'll move on to David Nielson.

MS. GALE: Mr. Nielson is appearing remotely.
THE WITNESS: Am I connected?

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

HEARING OFFICER HORTON: Yes. We can hear you.

THE WITNESS: Wonderful.
HEARING OFFICER HORTON: Mr. Nielson, our court reporter will swear you in. (Witness duly sworn.)

HEARING OFFICER HORTON: Thank you.
Do you have a summary or a statement you'd like to make to begin?

THE WITNESS: Yes, I would.
HEARING OFFICER HORTON: You're limited to five minutes.

THE WITNESS: Good afternoon. I'm Dave Nielson. I'm a professional engineer with Sargent \& Lundy, a Chicago-based engineering firm. My education and over 30 years of professional practice has been in the field of geotechnical and civil engineering.

At the request of Midwest Generation, I am here to answer your questions regarding two opinions. First, based on the operation and the quantified risks associated with composite-lined CCR surface impoundment, it is my opinion that leachate collection and recovery systems should not be required in new or retrofitted CCR impoundments in the State of Illinois.

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

It is also my opinion that decontaminated geometric liners should be available for reuse as part of a retrofit program for surface impoundment so that they can provide environmental protections beyond what is required in the federal CCR Rule.

Regarding my first opinion, we need to understand a little bit about composite liners. Both the federal rule and the state-proposed rule requires composite liners for all new and retrofitted CCR impoundment. The composite liner consists of two feet of very well-compacted, low-permeability clay with a hydraulic connectivity no greater than 1 times 10 to the minus 7 centimeters per second.

This clay liner is then overlaid with a very low-permeability geomembrane liner that form a composite liner.

Prior to mandating the composite liners would be required for new and retrofitted CCR surface impoundments. The US EPA performed a risk assessment. One of the conclusions was that the risks for composite-lined CCR impoundments were far below all cancer and non-cancer criteria.

The proposed Illinois rule that went beyond that and proposed or regulated requiring a leachate
collection and recovery system. And if a leachate collection and recovery system is required, this would be an extension beyond what is mandated under the federal rule and what is required based on the science of the risk assessment.

Because CCR impoundments are used to store both CCR and transport water -- to me, transport water is the same as leachate, the term we're using in this Rulemaking section.

Installing and operating a leachate collection and removal system will cause significant operational challenges for power plant operators.

To maintain the closure of CCR transport water which is recycled numerous times, the installation of a collection system would require this transport water to be stored in large on-site tanks.

Additionally, for bottom ash ponds, it would be very likely that the ponds would be dry or substantially dry given the nature of bottom ash, and there is a risk of fugitive dust emissions.

And I do point out that it is not required by the US EPA and -- to operate these systems. There's no requirement to operate the leachate collection system. I do think it is reasonable -- excuse me.

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

Let me start over.
I do not think it is reasonable to require the installation of high-capacity drainage systems to debase a pond that likely will never be used.

Instead, based on my knowledge of the design and operation of CCR surface impoundments, I respectfully suggest to the Illinois Pollution Control Board that the proposed requirement to install leachate collection removal system and new and retrofitted surface impoundments be deleted from the final rule.

If not deleted, I would suggest that the board allows owners, operators, and competent design professionals to present alternative designs, such as Figure 2 in my pre-filed testimony, which I consider to be equally protective of the CCR impoundment and allow it to operate.

Quickly, the rule requires that all liners be removed when a CCR impoundment is retrofitted. If an existing geomembrane liner is in place, it can be decontaminated and still required to be removed. I don't think it's reasonable to require the removal of a competent system, as backed up by groundwater data, that does not appear to be damaged in any way that
could be used as a supplemental system to add to the composite liner which required the rules.

So in short, I do agree with the Pollution Control Board's suggested modification of the language in Section $845.770(\mathrm{a})(1)$, to require the removal of all contaminated liners.

Thank you. I look forward to your questions.
HEARING OFFICER HORTON: Thank you.
Ms. Gale, would you like to enter Mr. Nielson's pre-filed testimony as an exhibit?

MS. GALE: Yes, I would. Thank you.
HEARING OFFICER HORTON: Okay. That will be Exhibit Number 54.
(Whereupon, Exhibit No. 54 was marked for identification.)

HEARING OFFICER HORTON: And we'll move on to questions. Illinois EPA, Ms. Diers, do you have any questions for this witness?

MS. DIERS: Yes, I do. EXAMINATION

BY MS. DIERS:
Q. Good afternoon, Mr. Nielson. My name is Stephanie Diers and I will be asking a few questions on behalf of Illinois EPA.

[^34]I would like to turn your attention to
Page 44 of your pre-filed answers, and I'm looking at agency Question 14, and just let me know when you get there, please.
A. Okay. That will be just a moment. What question on 44?
Q. It's on Page 44, I'm sorry, and it's Question 14.
A. Go ahead.
Q. Agency Question 14 has a series of subparts that ask about your testimony regarding the decontamination of liners. As part of your response to 14-G, as in girl, you state that you have the opportunity to review the board's suggested language revision, the Section $845.770(a)$, as in apple, (1), which limits removal of liners to the removal of contaminated liners.

How would Midwest Gen or other owner or operators determine whether a liner is contaminated or not?
A. That's an interesting question. I'd note that in a clean closure or closure by removal process, the area must be decontaminated. For clean closure work I've done in other states, some states have used

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

a visual clarification, visual classification, in particular, to remove.

I think it would be reasonable for the Agency to consider visual. I think it would be reasonable for the Agency to require a swab, an occasional swab test to be submitted for analytical testing.

But these are very low-permeability plastic products that are nonabsorptive, and I'm confident that the professionals of the Agency and the professionals working for industry can come to a reasonable meeting of the mind during the permitting process.
Q. And you say some states use visual. Can you name those states for me that you are aware of?
A. The very first clean closure $I$ did following the implementation of the CCR Rules in Minnesota and visual was the criteria.
Q. Is Minnesota the only one that comes to mind?
A. I can think of two others, but since there's a question on one, I'm going to hold off. So Minnesota is the one I'm willing to share.
Q. All right. Thank you.

How would an owner or operator demonstrate that a liner is not contaminated?

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

A. Well, I think we just talked about that. We could do visual, we could do swab testing, and analytical testing.
Q. Moving on, I'm going to go to Page 33, and this is in regard to your response to Board Question 18-B, as in boy.
A. Uh-huh. Go ahead.
Q. You state you relied on the US EPA Risk Assessment completed in December of 2014 to support your opinion that leachate collection and removal systems are not necessary for a new CCR surface impoundment with the composite liners.

Did the model scenario in the risk assessment which you referred to with a composite liner include a leachate collection system?
A. There's mixed information on this. At one point -- and I believe I cited it in my response to your question -- the US EPA Risk Assessment does indicate leachate collection was considered for composite liners. That's one occurrence.

However, the remainder of the 1200-page document, there are numerous occurrences on the discussion that ponds can leak more because they have more head on the liner. And so when they start

[^35]discussing head on the liner, that's indicative to me that a leachate collection system is not installed nor operating.

Moreover, the final proof in the pudding is the actual wording of the Agency. The Agency does not require leachate collection in final Rulemaking -- the federal EPA I should say.

And I think Exhibit 5 -- and I wish I would have thought about this for the six or eight years the US EPA had when they were writing their rule. But I think the US EPA states it clearly and effectively on Page 213.70 of the federal rule, which I think has been entered as Exhibit 5. And I'll slowly read it for the court reporter:
"The composite liner system installed at either CCR landfill or CCR surface impoundment provides an effective hydraulic barrier by combining the complimentary properties of the two liner components. The geomembrane provides a highly impermeable layer that can maximize leachate collection and removal in CCR landfills or minimize infiltration in the CCR surface impoundment."

And that sentence is very clear that the Agency, A, does not consider landfills or impoundments

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

to be the same animal; and, two, the purpose of the geomembrane liner in impoundments is to prevent leaks.

I think the bottom line, it's clear that it was not included.
Q. Thank you.

Is this modeling scenario -- I'm sorry.
For purposes of modeling assumptions, when the period of the use of the $C C R$ surface impoundment in the model was completed, was the CCR removed from the impoundment?
A. No, because they very specifically talk about the removal of head at the completion of closure through the de-watering process removes the risk.

So they considered it my opinion that the CCR would be present at time of closure.
Q. And this modeling scenario representative of a CCR surface impoundment which was not constructed with a leachate collection and removal system and did not have CCR removed -- let me strike that question. Let's start again.

Is this modeling scenario representative of a CCR surface impoundment which was not constructed with a leachate collection and removal system and did not have CCR removed at the time of closure?
A. The modeling included both. But as
importantly as modeling, they feel modeling is very important to the engineering practice, but you have to ground-troop your model. And the US EPA ground-trooped their model by going back and looking at proven and potential damage cases for CCR impoundments.

And since, as we've heard from other witnesses and as stated in the CCR preamble on the federal rule, the predominant method of closure has been removal or -- excuse me -- closure in place. So I think it's very clear that they did consider closure in place.
Q. Moving on, this is on Page 55, and this is going to be in response to ELPC Question 9-B.
A. It will be just a moment.
Q. Take your time.
A. Go ahead.
Q. In response to ELPC's Question 9-B, as in boy, you provided the following statement:
"When a leachate collection and removal system is installed, it is essentially a drain on the impoundment floor which functions to remove hydraulic head from the liner system and thus remove the water

[^36]from the impoundment. Since the impoundment is continuously drained, the impoundment and functionality as the CCR transport storage is negated.
"It is likely plants would then need to construct numerous very large tanks to function as a transport water storage."

Does Part 845 as drafted require the impoundment to be continually drained?
A. That's interesting. As drafted and as indicated by agency staff, operational of the leachate control system is not required. So that is -- that statement is what leachate collection systems are installed and, in hindsight, I should say, and operated. So the operation is what drains the pond, not the installation.
Q. So if not, would plants need to construct numerous very large tanks to function as transport water storage?
A. Only if the system is to be operated while the plant is transporting CCR via this loose drain.
Q. Could the leachate be routed back to the power plant boiler?
A. Now, there are multiple streams of water in a boiler, so I'm going to assume you mean brought it

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

back to the boiler house to transport additional CCR to the impoundment, yes.
Q. Yes.

MS. DIERS: I have nothing further, but I
reserve the right to ask follow-up.
HEARING OFFICER HORTON: Okay. Thank you. Moving on to the Environmental Groups, any questions for Mr. Nielson?

MR. HAMMONS: Yes. Can you hear me?
HEARING OFFICER HORTON: Yes.
MR. HAMMONS: Great.

## EXAMINATION

BY MR. HAMMONS:
Q. This is Jeffrey Hammons from the Environmental Law \& Policy Center.

During my colleague Faith Bugel's questioning of Midwest Generation witness Sharene Shealey, there were a couple of questions posed that Sharene noted would be better addressed to you, Mr. Nielson.

So before I get to my questions, I'm just
going to get to those real quick so we can get them out of the way.

Are you familiar with the leachate collection

[^37]system that's being proposed by the Illinois EPA in this Rulemaking?
A. Yes.
Q. And if that leachate collection system is being operated, would it minimize or reduce the hydraulic head on a composite liner?
A. It may, depending upon the pumping flow rate.
Q. Can you elaborate a little bit on that?
A. Certainly. To operate, I could put a half-gallon-per-minute pump in and call it operation. If the mandate came down to limit the head to one foot as is required in other CCR units, would be completely different by design and by nature, that would limit the head.

So it depends on the precise regulatory limit and permit requirement.
Q. And correct me if I am wrong, but it sounds like it also requires when pumps are installed and their capacity?
A. Certainly.
Q. And so if an owner or operator that wanted to operate leachate collection systems installed the correct and appropriately sized pumps, they could reduce or minimize the hydraulic head on a composite

[^38]
## liner?

A. Yes.
Q. Would minimizing the head on that composite liner decrease potential for the movement of fluids through the liner?
A. It would not reduce it from above to below the acceptance criteria established for the protection of human health on the environment. There's been a lot of questions on this, so I'm going to try a different direction here.

Instead of -- let's say we're designing a concrete building and have concrete columns and all the science and engineering say I can get away with an 18-inch column and have more than adequate safety factor and seismic and wind loads and all these other loads. If I, as an engineer, decide to use maybe 36-inch square columns, I'm going to use a lot more Portland cement, a lot more aggregate, I'm going to have to have heavier columns below.

There are a lot of unintended consequences from excessively conservative design. And I think the risk assessment done by the US EPA has been very explicit, as has the preamble of the U.S. rule that the system is not needed.

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

Q. So it's funny that you bring up explicit because my next question actually was whether or not that EPA risk the assessment --

THE COURT REPORTER: Could you have him slow down?

HEARING OFFICER HORTON: Excuse me, Mr. Hammons. This is Vanessa Horton. Can you repeat that slower for our court reporter? BY MR. HAMMONS:
Q. Did the US EPA risk assessment explicitly evaluate whether a leachate collection system was or was not necessary for a CCR surface impoundment to be protective of human health or the environment?
A. Yes. If evaluated, as I discussed earlier, the ground-trooping process of looking at proven and potential damage cases, those damage cases did not include leachate collection. I've never seen it installed in a CCR impoundment.

And so with the US EPA system, there were no cases with composite liners that exceeded the criteria. That is inclusion of non -- impoundments that do not include leachate collections.
Q. All right. Can $I$ turn your attention to Page 34 of the Answers document, particularly, the

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

question that the Board proposed, the Illinois Pollution Control Board Question 18?
A. Uh-huh.
Q. So Part B, as in bravo, and your answer?
A. Okay.
Q. In your answer did you state: "The risk assessment is not explicitly clear if the surface impoundments modeled contain leachate collection and removal systems"?
A. And for those modeled, it is not. But for the draft troops it is.
Q. Okay. Nevertheless, it's still your opinion that the risk assessment explicitly evaluated whether a leachate collection system was or was not necessary for a CCR surface impoundment to be protective of human health or the environment?
A. Could you repeat the question?
Q. Yes. It's actually the first question $I$ asked.

Did the US EPA risk assessment explicitly evaluate whether a leachate collection system was or was not necessary for a CCR surface impoundment to be protective of human health or the environment in light of your answer to Question 18-B posed by the Board

[^39]where you state:
"A risk assessment is not explicitly clear that the surface impoundments modeled contained leachate collection and removal systems."
A. I think that's the same question that I've already answered. I was trying to differentiate the difference in the questions. And other than the word count, I think that's the same question.
Q. All right. So my next question has to do with filterable layers and whether or not a filterable layer placed above the leachate collection system would reduce the amount of leachate that would reach the collection system?

MS. GALE: I'm sorry. Is this related to a question or is it just a -- I don't know what you're talking about?

MR. HAMMONS: This is another one of the questions that my colleague, Faith Bugel, originally had asked Sharene Shealey but was directed to Mr. Nielson.

MS. GALE: Great. Thank you.
Sorry. You might have to repeat it again. He might have missed it. BY MR. HAMMONS:
Q. Would having a filterable layer placed above the leachate collection system reduce the amount of leachate that would reach the leachate collection system?
A. It entirely depends upon the design. And I'm going to quickly turn to the proposed rules so I don't misquote.

The filter layer in the rule does not have a minimum thickness or a maximum thickness. And if an owner or operator wanted a 7-foot thick randomly, hypothetically selected liner -- or filter thickness, that would reduce the flow.

The only requirements, as I review the rule, that it has to be above the composite liner system, and it has to have a hydraulic conductivity no less than 1 times 10 to the minus 5, although I would never design it, $I$ suspect the material in your window screens would meet that criteria. And I would design a better filter system personally.

But as the rule is written, window screen could be that filter material. And I don't think that's what the Agency intends.
Q. Moving on, this is on Page 55 of the answers. It's in follow-up to your response to the

[^40]Environmental Group's Question 9-B, as in bravo?
A. Okay. Go ahead.
Q. Can you read for the record the last two sentences of your answer?
A. Of B?
Q. Yes.
A. The final paragraph that should already be on the record is: "If a leachate collection system is installed, the surface impoundment is not designed to hold or accumulate water. Thus, it would not meet the strict definition of a CCR impoundment."

Is that your two sentences?
Q. Yes.
A. End quote.
Q. Thank you.

Are you a licensed attorney in the State of
Illinois?
A. I am not. I'm not a licensed attorney in any state.
Q. Thank you.

MR. HAMMONS: Miss Hearing Officer, I would like to move for an order on the record directing that any of the opinions expressed by Mr. Nielson on the definition of a CCR impoundment and whether or not one

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

with a leachate collection system meets that definition be considered a public comment for purposes of weight that the board gives.

THE WITNESS: Madam Hearing Officer, if I could speak before you rule?

MS. GALE: Wait. Let me speak first.
Madam Hearing Officer, he's not giving a
legal opinion here. But certainly we're all
interpreting language that goes into regulations. And he's interpreting what he, as an engineer, reads this definition. This is not a legal opinion or a legal conclusion, but in looking at language used by engineers and us all to understand what we're discussing here.

So I would object to the striking of his answer as somehow being some sort of legal definition.

HEARING OFFICER HORTON: Mr. Hammons?
MR. HAMMONS: For the record, Hearing
Officer, I'm not seeking to strike it; I'm seeking for the board to consider it public comment and not testimony, acknowledging that the Board more heavily weighs testimony for purposes of making its decision than it weighs public comment.

HEARING OFFICER HORTON: Mr. Hammons, this is

Vanessa Horton. I'm going to deny your request. So you can move on to the next question. BY MR. HAMMONS:
Q. All right. Can you explain, Mr. Nielson, why a CCR surface impoundment with a leachate collection system does not meet the definition of a CCR surface impoundment as proposed by the Agency?
A. Certainly. So the three places we could turn, but the easiest one is my responses to questions. In Section 257.53 of the federal CCR Rule, the tarp surface impoundment is defined and it's also defined in Section 845.120 of the proposed Illinois rule, and I quote:
"CCR surface impoundment or impoundments means a natural topographic depression, man-made excavation, or diked area which is designed to hold and accumulate -- excuse me -- hold an accumulation of CCR and liquids" -- let me go back to the beginning of that.
-- "which is designed to hold an accumulation of CCR liquids and the surface impoundment treats, stores, or disposes of CCR."

So to hold an accumulation of liquid, you can't have a drain system in the bottom. To me, hold

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

means retain. That means contain and retain. It doesn't mean, oh, and we have to design a system to pump out what we're supposed to be holding.
Q. Thank you.

Quick question. Do you have a sink in your

## kitchen?

A. Absolutely.
Q. Would you say that that sink is designed to hold an accumulation of water?
A. No.
Q. When you put a stopper in your sink drain, would you say it's designed to hold an accumulation of water?
A. Is the stopper subjected to a CQA plan, a Construction Quality Assurance plan, to verify that it's constructed right, installed right, and it's secured properly?

Mine does not. I don't know about yours.

## Q. Either?

A. In the absence of quality assurance and a legitimate design to make sure that it is a permanent system, $I$ don't think you can say it's designed to hold water. Actually, my wife gets rather aggravated when our sink does hold water unanticipated.

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

Q. Thank you. I'm going to move to Page 65 of your answers -- well, actually it's Midwest Generation answers, but it's Page 65.

So the question actually appears on Page 65, but the answer is on Page 66. This is Question 17-C.
A. Okay.
Q. In your answer, you refer to practical considerations. Can you explain what some of those practical considerations are?
A. If a rail bridge or rail access to a site hasn't been maintained in many years because it's no longer used, $I$ don't think it's practical to consider sending loaded rail cars, as you can imagine, over a public roadway on a bridge that hasn't been maintained. That could be a possibility.

It would also be a practical consideration of if the waste -- excuse me -- if the gravel was to be loaded on trains, but the most appropriate gravel pit doesn't have rail access -- and, frankly, I don't know very many that do -- I'm going to have to handle the material when $I$ mine it, truck it to a rail head, load it onto a railcar, possibly transport it near the site.

But most power plant designers didn't put
rail spurs out to the $C C R$ impoundments because rail spurs were either to deliver coal or deliver equipment to the power plant. So then I'm going to have to unload it, reload it on trucks, and haul it to the CCR impoundment.

So I've increased the numbering of handling, and I consider it impractical to handle a material that many times if it's not required if it's not -minimum work provides the least impact and the least footprint.
Q. Thank you.

If the gravel is delivered via rail rather than trucking, could you also use a conveyer system to take the gravel from the train to the impoundment?
A. Mr. Hammons, I'm thinking of specific power plant general arrangements and the installation of $a$ conveyor system. In some cases, well in excess of a half mile, most portable conveyor systems are absolutely not designed for quarter- mile or half-mile type runs without numerous transfer stations. Anything is possible, quite frankly, with enough money. But is it the intent to build a Saturn-fired rocket if a bottle rocket will do. That may be a bad example.
Q. Thank you.

MR. HAMMONS: No further questions.
HEARING OFFICER HORTON: Okay. Thank you.
Moving on to City of Springfield, any
questions for Mr. Nielson?
MS. WILLIAMS: This is Deborah Williams. I
don't have any questions for this witness.
HEARING OFFICER HORTON: Okay.
Dynegy, Mr. More, any questions?
MR. MORE: No questions.
HEARING OFFICER HORTON: Illinois
Environmental Regulatory Group, Ms. Brown, any questions?

MS. MELISSA BROWN: No questions for this witness.

HEARING OFFICER HORTON: Ameren, Ms. Manning, any questions?

MS. MANNING: No questions for this witness. Thank you.

HEARING OFFICER HORTON: Attorney General's Office, Mr. Armstrong, any questions?

MR. ARMSTRONG: No questions. Thank you.
HEARING OFFICER HORTON: Pollution Control
Board Technical Unit, Mr. Rao, any questions?

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

Electronic Filing: Received, Clerk's Office 10/23/2020
September 30, 2020


[^41]THE WITNESS: Absolutely. Give me just a moment and I'll be there.

HEARING OFFICER HORTON: Ms. Diers, this is Vanessa. What exhibit number is that?

MS. DIERS: I'm sorry, what? I didn't hear you.

HEARING OFFICER HORTON: What exhibit number is the risk assessment?

MS. DIERS: It's 9? Is that what someone said?

MS. GALE: No. We attached -- because it's 1200 pages, we only attached specific pages that he's referring to, but it was not fully attached.

So Page Number 2-1 I believe you said is not in the record. It is a publicly available document though.

MS. DIERS: We're looking for 2-3 and 4-9, and I don't know if that was included.

MS. GALE: No. Well, 4-9 may have. Hang on.
MS. DIERS: Okay. Thank you.
MS. GALE: Yes. 4-9 is attached to his
answers, attached to Midwest Generation's answers, but not 2-1.

BY MS. DIERS:

[^42]Q. When I look at 4-9, it appears to me, based on the model, that there was included a leachate collection system. So I'm confused on the mixed information. If you could explain that, please.
A. Certainly. On 4-8 and 4-9, it does explicitly say a leachate collection system is assumed to exist between the waste and the system. That, to me, is a very clear sentence, and this is the reason I say it's a little ambiguous.

Because in addition to that, and I don't know if this is possible -- and the Hearing Officer may give me some guidance.

Could I refer to pages of the publicly available risk assessment that are not entered in as an exhibit?

HEARING OFFICER HORTON: Yes. But, Ms. Gale, could you please enter them into the record? File them with the clerk and the public comment after?

MS. GALE: Yes. No problem.
HEARING OFFICER HORTON: Okay. Thank you.
THE WITNESS: Okay. Give me just a moment, please.

I'm going to go to page $K-1$ in the risk assessment. So if anybody has it close by, I will

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

certainly read the quotation once I get there. BY MS. DIERS:
Q. Can you tell me again what page you're reading from, Mr. Nielson?
A. $K$, as in kilo, one.
Q. Thank you.
A. $K-1$ is in an attachment. I believe the attachment is identified Uncertainty Analysis. So Appendix $K$ is uncertainty analysis. On page $K-1$, under Section K.2.1, kilo .2.1, Technical Approach, starting six lines down, I believe, quoting:
"During operation, free liquids that are deposited in the impoundment create a strong hydraulic head that acts to increase infiltration through the base of the impoundment."

And, to me, if there is an increased hydraulic head, there is not an operating leachate collection system.

And it goes on, and if I go to the second paragraph on Section K.2.1, and it's the 8th line which starts "Transformational Products," there's a sentence that starts: "Liquid waste and impoundment are assumed to be replenished over the operational life to maintain a constant level of liquid in the
unit with constant constituent concentrations."
Again, in response to Illinois EPA's question, $I$ think those two cases are indicative of the pond contains water, and an operating leachate collection system would not contain water.

That's the end of my response.
Q. Just a moment.

Do you know how the pond was modeled after the CCR was removed?
A. I've read it and I'm trying to think of the exact citation. I didn't commit all 1200 pages.

After closure -- could you repeat the question to make sure I'm answering the right question?
Q. How was it modeled after the $C C R$ was removed?
A. I apologize. I'm not thinking of the exact citation, but -- so I can't point to the chapter and page. But actually, let me try a quick search here.

I do know that it was based on -- the pond -it was modeled in a dry condition. I just can't put my finger on the reference.

MS. GALE: Mr. Nielson, can we offer to admit it as a public comment later instead of you trying to find it now?

THE WITNESS: I think that would be a grand suggestion.

MS. GALE: Would that be acceptable to the Agency?

MS. DIERS: I'm fine with that, unless he wants to go -- I think he might be able to find the information on 2-3.

MS. GALE: Okay.
THE WITNESS: On Page 2-3 -- thank you for the lead. I'm glad the Agency is now using this risk assessment. Section 2.2.1, the last sentence in the first full paragraph:
"Closed surface impoundments are assumed to behave the same as closed landfill units depicted in the cross-section below."

And it goes on to say -- does that answer your question, ma'am? BY MS. DIERS:
Q. So based on what you just read, has the CCR been removed?
A. The CCR has not been removed.

It is assumed that all waste is removed from
most units prior to closure.
So by using all waste in most units, you

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

cannot conclude that they're all clean closed. And then it goes on to say, however, in some instances, it's left in place.

So it sounds like the correct answer is they modeled some clean closed or closure by removal, in regulatory language, and some as closure in place.

MS. DIERS: I have nothing further. Thank you, Mr. Nielson.

HEARING OFFICER HORTON: All right. Any further follow-up questions for Mr. Nielson?

MR. RAO: I have follow-up questions. This Anand Rao.

HEARING OFFICER HORTON: Go ahead.
THE WITNESS: Hello, sir.
EXAMINATION
BY MR. RAO:
Q. Mr. Nielson, in response to the Agency's question, you mentioned that it's your opinion that there's no operating leachate collection system in the model impoundment because if there was a leachate collection system, you said there would be no water in the impoundment.

Can a leachate collection system be used to maintain a particular head on the liner instead of

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

just completely draining it?
A. It could. It could have a level indicator.
Q. And you can still operate when getting a particular head over the liner?
A. It would depend on the level mandated. If the head was mandated to be one foot, I wouldn't have the storage of transport water for the recycled loop that's required for the operation of the system. So if that was the mandate, it would not work.

If $I$ have a -- this is not an impoundment in the State of Illinois, but I'm thinking of several impoundments along the Ohio River that are in excess of 150 feet deep. If those were limited to, say, 60 feet of depth, you could certainly operate the system. It would take some -- a revised head boards, but it could be done.
Q. Are you familiar with impoundments in Illinois in terms of what depth most of them are operating at?
A. Illinois has been very fortunate. When the glaciers came through with their bulldozer blades down and generally leveled the land and created a good and permeable glacial till in that area, it turns out that most of the impoundments are relatively shallow, at
least on the stations that I've reviewed, relative to the several hundred-foot depth in some of the more enhanced terrain.

So I would say, on average, they're less than 30 or 40 feet, but that is sure speculation, not backed by study.
Q. So if they are around 30 to 40 feet, could the rules require a leachate collection system where the heads are mandated not at one foot like landfills but at a much higher depth, and would there be any benefit to that?
A. Well, I struggle with that because per the risk assessment, there would not be a reduction for unacceptable risk to acceptable risk. It would be going from an acceptable risk to a more acceptable risk by reducing the head.

The operational system that I'm imagining we retrofitted an impoundment or we construct a new impoundment, the first few years it's in operation, as the delta formation of solids is building and moving across the impoundment, it would be very easy and a well-designed unit.

However, as the unit approaches its design capacity, for me to fully fill an impoundment and
store the volume of CCR that it's designed for, I need to have the water level at or above that for sedimentation to happen.

If I -- I apologize. This is my section.
Hopefully that's showing up. And this was where I intended to storage, but my water level is limited to here, this ends up being dead storage that I could never fill in my impoundment.

So it would be a case-by-case operational requirement that $I$ don't think I could generalize for your Rulemaking activities.

MR. RAO: Thank you for that clarification. Thanks.

THE WITNESS: Thank you sir.
HEARING OFFICER HORTON:
MR. RAO: That's all I have.
THE WITNESS: Thank you, sir.
MS. DIERS: I have one more question. I'm sorry. And it was just a follow-up to what Mr. Rao was asking.

HEARING OFFICER HORTON: Go ahead. FURTHER EXAMINATION

BY MS. DIERS:
Q. Mr. Nielson, can you move the pipe around?

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

A. In some circumstances you can relocate the discharge pipe of the sluice line, yes.
Q. Would it then operate as designed?
A. Well, it's hard for sedimentation to happen if the CCR falls out of the water. Let me get my thought back.

If this is my water level, it's hard for the CCR to settle into this storage volume if this is my maximum water level. I can build a delta somewhat above the water level depending on what material I'm sluicing.

But relying on that in an engineering design I think would be a real risky assumption.

MS. DIERS: Thank you.
HEARING OFFICER HORTON: Any further follow-up questions for Mr. Nielson?

MR. HAMMONS: Yes, Hearing Officer. Jeff Hammons, Environmental Law \& Policy Center. I just had one following up on the previous questioning. FURTHER EXAMINATION BY MR. HAMMONS:
Q. If you have an impoundment with a leachate collection system installed, Mr. Nielson, and it's not operating, is it holding an accumulation of water as

[^43]
## transport water is being poured into it?

A. Without pumps installed, yes, I can say that.
Q. Pumps installed not operating?
A. Pumps installed not operating, it would hold water. But it's unclear to me why we would use those natural resources to build this system that we're not going to operate -- that I do not understand.

MR. HAMMONS: Thank you. No further questions.

HEARING OFFICER HORTON: As long as there are no further follow-up questions for Mr. Nielson, thank you, Mr. Nielson, you are dismissed.

THE WITNESS: Thank you. Have a wonderful day, all.
(Witness excused.)
HEARING OFFICER HORTON: Moving to Ameren's first witness, Mr. Gary King.

MS. MANNING: Good afternoon, Madam Hearing Officer.

Before we start with Gary King, I would just ask the Hearing Officer if you would have both witnesses sworn in, in the event Mr. King decided to defer a question that's more specific in nature to Mr. Wagstaff who is here already, recognizing that
those specific question, pre-filed questions were asked of Mr. Wagstaff. We just think it might be more expedient in the event Mr . King wants to defer some specific information to Mr. Wagstaff.

HEARING OFFICER HORTON: That's fine. That would be the same way we handled Mr. Even Magruder and Scott Payne yesterday.

MS. MANNING: Thank you.
HEARING OFFICER HORTON: Ms. Court Reporter, could you --

MS. MANNING: Would you like me to move the exhibits now or would you like me to do that after they are questioned?

HEARING OFFICER HORTON: Let's swear them in and then we'll enter the exhibits.

MS. MANNING: Thank you. (Witnesses duly sworn.)

HEARING OFFICER HORTON: Sir, could you identify yourselves so we know who's who.

MR. KING: My name is Gary King.
MR. WAGSTAFF: I'm Mike Wagstaff.
HEARING OFFICER HORTON: Okay. Thank you.
Then, Ms. Manning, you'd like to enter an exhibit?

MS. MANNING: Yes. I'm not sure what number we're on, but $I$ would enter into as an exhibit the pre-filed testimony of Gary King and the pre-filed testimony of Mike Wagstaff and the pre-filed answers of Gary King.

HEARING OFFICER HORTON: Okay. So Exhibit 55 will be the pre-filed testimony of Gary King. Exhibit 56 will be the pre-filed testimony of Michael Wagstaff. And then Exhibit 57 will be the pre-filed answers of Gary King.
(Whereupon, Exhibits 55, 56 \& 57 was marked for identification.)

MS. MANNING: And I'm also prepared to enter into evidence the exhibits that we filed, that we pre-filed on Monday. If Madam Hearing Officer would like me to introduce those exhibits at this time, I will do so.

HEARING OFFICER HORTON: Yes. Would you like to enter them as one exhibit?

MS. MANNING: That would be fine. One exhibit would probably be easier.

HEARING OFFICER HORTON: That's the way they showed up when filed in COOL. So we can just call them Exhibit 58.

[^44]MS. MANNING: Okay.
HEARING OFFICER HORTON: So that will be Ameren's pre-filed exhibit that was filed on September 28th.

MS. MANNING: Thank you.
(Whereupon, Exhibit No. 28 was marked for identification.)

MS. MANNING: Would you like me to further identify those exhibits, or are we ready for testimony?

HEARING OFFICER HORTON: Sure. Go ahead.
MS. MANNING: The exhibits that Ameren filed are -- basically the first 16 exhibits are documents that are in the Agency's files that are public documents, the first being the closure plan for Hutsonville on $A, B, C$, and the bottom ash pond, dated October 2014.

The second document is the IEPA approval letter of the closure plan for Hutsonville ponds A and C and the bottom ash pond issued in 2015, approving the closure plan.

The third document is the closure plan for Hutsonville Pond D issued by the Agency on July 2011 immediately following the board's decision on

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

Hutsonville Pond D that was issued in January 2011.
The fourth is the IEPA approval letter of the closure plan for Hutsonville Pond dated April 2012.

The fifth is the closure plan for Maradocia fly ash and bottom ash pond dated August 2016.

The sixth is the IEPA approval letter of the closure plan for Maradocia fly bash and bottom ash pond dated March 2017.

The seventh is the closure plan for Venice North and South Ash Ponds dated February 2011.

The eighth is the IEPA approval letter of the closure plan for Venice North and South Ash Pond dated May 2011.

The ninth is the Construction Quality Assurance report, also known as CQA, for Hutsonville Ponds A, B, C, and the bottom ash pond. These CQAs are required by the closure plan, demonstrating that the closure was done in conformity with the closure documents. That is dated November 2016.

Number 10 is the CQA for Hutsonville Pond D dated November 2012.

Eleven is the Construction Quality Assurance report, again, the CQA, for Maradocia fly ash and bottom ash pond dated January 2019.

The twelfth is the Construction Quality
Assurance report for Venice North and South Ash Ponds dated November 2012.

The thirteenth is the Annual Report, and it's the 2019 Annual Report for Hutsonville Pond A.

This would be a description of all of the groundwater monitoring results annually reported to the Agency.

The fourteenth -- and this would be the last report reported to the agency.

The fourteenth, end of number 14, would be the 2019 annual report for Hutsonville Pond C.

Number 15 is the 2019 annual report for Maradocia Power Station.

Number 16 is the 2019 annual report for the former Venice Power Plant.

All of those annual reports would have been filed early in 2020.

The final three documents are all responses to questions asked of Gary King related to Old Maradocia.

The first, number 17, is the liquefaction analysis for the Maradocia fly ash and closed ash pond which was submitted to the Illinois Department of

Natural Resources.
Number eighteen is an elevation rendering of the Maradocia Coal Ash Pond.

And Number Nineteen is an April 12, 2019, letter from the Illinois Department of Natural Resources to AmerenEnergy and Dyna Valley Cogan LLC regarding Maradocia Ash Ponds. And that particular letter is quoted in the responses to questions asked of Mr. King.

With that, I'll turn over Mr. King for questioning.

HEARING OFFICER HORTON: One question. Will Mr. King or Mr. Wagstaff be providing a summary of their testimony?

MS. MANNING: Mr. King will be providing a summary of his summary; Mr. Wagstaff will not.

HEARING OFFICER HORTON: Okay. Please go ahead. You're limited to five minutes.

MR. KING: Thank you. My name is Gary King. I am employed with the consulting firm Arcadis US, which is a global environmental consulting firm. The vast bulk of my professional career has been about 34 years. I was an employee of the Illinois EPA.

My expertise is somewhat different from the

[^45]previous witnesses in this proceeding. My expertise has been in the development of regulatory programs at Illinois EPA related to remediation and closure of environmentally impacted sites.

These programs have included the volunteer site remediation program, the leaking underground storage bin program, the solid waste landfill program, tier approach to corrective action objectives, acronym is TACO, T-A-C-O, and implementation of CERCLA. CERCLA is an acronym.

THE COURT REPORTER: Can he repeat that last part, what it stands for, after TACO.

HEARING OFFICER HORTON: Our court reporter would like you to start over from TACO.

MR. KING: Taco is the implementation of CERCLA. That's $\mathrm{C}-\mathrm{E}-\mathrm{R}-\mathrm{C}-\mathrm{L}-\mathrm{A}$. That's in Illinois.

I serve as the lead agency spokesperson in most of these programs and have appeared numerous times in front of the board as an agency regulatory proponent and witness and more recent years, as consultant to Ameren related to its initiatives related to regulatory proposals for the board concerning closure of its coal ash ponds.

I'm familiar with the functioning of the
board's landfill rules, the board's underground storage tank rules, the board's TACO rules, the board's site modification program rules, the board's groundwater rules of the Environmental Protection Act, as well as the Agency's program.

Ameren stands in a much different position than other regulated entities in this proceeding for two significance reasons. First: Ameren stopped generating electricity for the burning of coal at its three facilities, Maradocia, Hutsonville, and Venice, by 2011, which was several years before the effective date of March 2007.

Second, there were ten impoundments at these facilities. Nine of those impoundments were closed after obtaining approvals from Illinois. Ten unit year old ash pond at Maradocia was closed in the early '70s, long before IEPA had an oversight program for closure of coal ash surface impoundments.

Even though the federal 257 rules were not applicable, Ameren sought and achieved closure approval through the Illinois EPA and its existing regulatory structures, particularly the board's groundwater rules, and in the case of Hutsonville Pond D, the board cites specifically parts.
L.A. Court Reporters, L.L.C.

My experience with the Agency allows me to state with complete confidence that the Agency would not have authorized closure of Ameren sites had it not believed closure was protective of human health and environment.

Furthermore, I can fairly state that the board would not have adopted Part 840 if the board did not believe those boards provided the necessary protection of human health and environment.

I've listened to all the testimony and questioning in this proceeding. I would like to supplement my testimony with the following observations and comments relative to testimony that has come forward relative to Ameren:

First, the expert witnesses that Dynegy presented yesterday certainly confirm the environmental soundness of the approach that Ameren followed in closing its ponds in Illinois. Lisa Bradley appropriately commended Illinois for its foresight and promulgating the Groundwater Protection Act which drives the groundwater mediation program in place at each of the closed surface impoundments -closed Ameren surface impoundments.
(Reporter clarification.)
L.A. Court Reporters, L.L.C.

HEARING OFFICER HORTON: Mr. King, you cut out that last bit.

MR. KING: David Hagen and other witnesses presented evidence that although there are extreme groundwater exceedences at some monitoring wells at Ameren sites, those exceedences are statistically decreasing, which is what is expected and required in Ameren's agency-approved full disclosure process.

Mr. Hagen identified that this information is publicly available. That's because Ameren monitors groundwater and approved groundwater management and annually reports to the Agency.

I concur with the opinion expressed by Mr. Hagen that closure in place and surface impoundments coupled within that groundwater distraction has been effective at controlling and mitigating groundwater contaminant.

In addition in response to questions regarding --

HEARING OFFICER HORTON: This is Vanessa Horton. I'm going to have to cut you off there, Mr. King. We went a little bit over five minutes. And I know I interrupted you twice to clarify, so that's why I gave you a little bit of extra time. So
we'll end your summary there and we'll move onto questions.

But before we do, is there a way to rearrange the microphone in your room, Ms. Manning? It's a little bit difficult for us to hear Mr. King.

MS. MANNING: There may be.
HEARING OFFICER HORTON: While you're arranging yourself, we will begin with questions.

Ms. Diers, Illinois EPA, do you have any questions for Mr. King?

MS. DIERS: We do not. Thank you.
HEARING OFFICER HORTON: So I'm going to go through Mr. King first and then I'll circle back to Mr. Wagstaff, with the understanding that I understand that the both of you are -- might confer on answers, but that's how I'll proceed.

So for the Environmental Groups, any questions for Mr. King?

EXAMINATION
BY MR. HAMMONS:
Q. Yes. This is Jeffrey Hammons, Environmental Law \& Policy Center.

For my first question, Mr. King, can I direct you to your answer, the pre-filed answers at Page 9.

And, in particular, it's Question 12-A, as in alpha, and $12-\mathrm{B}$ as in beta.
A. I'm looking at those questions.
Q. Is the Illinois EPA proposing to regulate Hutsonville Pond D?
A. Under Part 845?
Q. Yes.
A. Yes.
Q. Has the Illinois EPA issued any notice of violation for failure to pay any fees for Hutsonville Pond D?

MS. MANNING: I'm going to object to that question in that there was an objection to that question to begin with. If we want to argue about this issue, I'm happy to do so. But we were precluded from doing so at the beginning of this proceeding.

MS. DIERS: This is Ms. Diers, and I'm also going to object. We have stated before on the record that we did not want that issue brought into this Rulemaking. You are just looking at 845, and this is not part of 845 .

HEARING OFFICER HORTON: The objection is sustained.

MR. HAMMONS: I would like to move to strike
all of the witness's testimony as to the applicability of these rules to Hutsonville D if I can't ask any questions about it. I don't understand why it can still get in through testimony and pre-filed answers. HEARING OFFICER HORTON: That's not what I ruled. I ruled that questions about fees for a particular site was not to be asked about. Certainly you could ask about the testimony that Mr. King has presented.

MR. HAMMONS: Thank you.
BY MR. HAMMONS:
Q. So in your response to Question $12-\mathrm{B}$ that asks about your alleged conflict between different regulatory programs, are you providing your legal opinion?
A. Well, I was doing a comparison between the two sets of rules.
Q. Okay. And your testimony today said you found that there was a conflict between the two sets of rules?
A. Right.
Q. Can you explain the conflict?
A. I can identify some of them. I think I did that later in the testimony, that $I$ gave an example of

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

Electronic Filing: Received, Clerk's Office 10/23/2020
September 30, 2020
one of those.
If you look on Page 14, this was in response -- part of the response to Question 21-B. I made the statement that requirements for a response to a groundwater exceedence under Section 840.116(a) is substantially different from the requirements under proposed Section 845.170.
Q. Are you using the word "substantially" different as analogous to conflict?
A. Yes.
Q. Can you describe the differences between those two rules?
A. Well, I mean, I could read. Are you suggesting I should read the two rules?
Q. Whatever you need to do to describe the conflict between them?

I assume you would identify it because you identified it in your pre-filed answers.
A. So I'm going to read the entirety of 840.116(a). It begins:
"On-site, prior to the completion of the post-closure care period, the applicable groundwater quality standards at the Hutsonville site for concentrations of contaminants from Ash Pond D are the

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

concentrations as determined by groundwater monitoring, if those concentrations exceed the numeric standards for Class I: Potable Resource Groundwater set forth in 35 Ill. Admin. Code 620.410. After completion of the post-closure care period the on-site concentrations of contaminants from Ash Pond D as determined by groundwater monitoring, if those concentrations exceed the numeric standards for Class I: Potable Resource Groundwater set forth in 35 Ill. Admin. Code 620.410, are the applicable groundwater standards at Hutsonville if: Now there's three subsections:

1) To the extent practical, the exceedence has been minimized and beneficial use is appropriate for the class of groundwater has been returned on-site.
2) any threat to human health or the environment on-site has been minimized; and
3) an institutional control prohibiting potable uses of groundwater is placed on the Hutsonville site in accordance with the Uniform Uniform Covenants Act [765 ILCS 122] or an alternative instrument authorized for environmental uses under Illinois law and approved by the Agency. Existing
potable uses of groundwater may be preserved as long as those uses remain fit for human consumption in accordance with accepted waters supply principles."

Now, the standard in 845.170 , the standard there is related to the same subject matter is contained in $845.170(b)$ and (c). I'll read both of those:
"When a prior release from an inactive closed CCR surface impoundment has caused an exceedence from the groundwater quality standards in 35 Ill. Admin. Code Part 620 and the owner or operator has not completed remediation of the release before completing closure, the owner or operator must initiate or continue corrective action on the operating permit issued pursuant to this part."

Then it says: "When a release from an inactive closed CCR surface impoundment causes an exceedence of the groundwater quality standards in Ill. Admin. Code Part 620, the Agency has not concurred with an alternative source demonstration, the owner or operator of an inactive closed CCR surface impoundment must initiate an assessment of corrective measures that prevents further releases, remediates any releases, and restores the affected

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

area. The owner or operator of the inactive closed CCR surface impoundment shall develop a corrective action plan and obtain a construction permit consistent with subsection $A-2$ of this section before performing any corrective action to remediate and to release this and to restore the affected area, included but not limited to the final cover system, groundwater monitoring system, groundwater collection trench, extraction wells, slurry walls, or any construction related to a corrective action."

That's the end of that section.
Q. Can you identify the conflict between those two?
A. Well, they're just different. They're different. And for Ameren to have to choose between doing one or the other, since both would be required, that would be a conflict.
Q. Would it be impossible to do both?
A. Well, I think we talked about -- we talked about that as a standard in response to one of the other questions and that the possibility is really not an appropriate standard for making decisions.
Q. I'm going to direct you to Page 12 of your answers, which is Question 18 and its subparts and

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

your answers to those.
A. I'm on Page 12. What's the -- which question?
Q. Question 18?
A. It's on Page 11.
Q. Sorry. It's subpart C?
A. I've got subpart C.
Q. Is your opinion that the board's proposal retroactively applied state law to create new liability on the owners or operators of ash ponds for such conduct?
A. You confuse me because you said the board's proposal.
Q. I'm sorry. The Agency's proposal?
A. So could you repeat the question then, please.
Q. Yes. I'm just confirming that your opinion is that the Agency's proposal treats something as if it is not closed, that it is, in fact, closed, and that the justification retroactively applied state law to create new liability on the owners and operators of ash ponds for that conduct?
(Reporter clarification.)
HEARING OFFICER HORTON: Mr. Hammons, this is

Vanessa Horton. You'll have to go a lot slower. You're reading very quickly and our court reporter can't keep up. So please repeat much slower.

MR. HAMMONS: It might just be easier if Mr. King reads his answer.
(Reporter clarification.)
BY MR. HAMMONS:
Q. I'm just asking to confirm Mr. King's opinion that "The Agency's proposal treats something as if it is not closed, that is, in fact, closed, and as a justification, retroactively applied state law to create new liability on the owners and operators of ash ponds for past conduct"?
A. That's almost my entire statement. You left off a little bit of it. But that's almost my entire statement.
Q. Thank you.

And is it fair to characterize it as your

## legal opinion?

A. I think so, yes.
Q. Thank you.

MR. HAMMONS: Hearing Officer, I would like to move for an order directing that any legal opinion provided by the witness be treated as public comment

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

for the purpose of the weight that the board assigns it and not as testimony.

HEARING OFFICER HORTON: Ms. Manning, any response?

MS. MANNING: I would object to that.
Mr. King is a lawyer. He's a regulatory lawyer. He has worked at the Agency for many years. He is certainly qualified to determine whether a law -whether a regulation that is being proposed before the board is retroactively being applied.

Certainly he has probably more experience than many lawyers in this state in terms of bringing proposals to the board on behalf of the Illinois EPA. His background indicates how he worked with the Illinois Division of Legal Counsel for many years as well as the Land Division, as manager of the Land Division. So I think he's wholly qualified to make the opinion that he made.

HEARING OFFICER HORTON: I'll deny Mr.
Hammons' request and sustain Ms. Manning's objection. BY MR. HAMMONS:
Q. Mr. King, were you retained by Ameren as an attorney in this matter?
A. No. Ms. Manning is their attorney.

MR. HAMMONS: Can I, Madam Hearing Officer, just request a clarification of your ruling? Is it permissible for an attorney to submit testimony to the board that contains legal opinion and have that testimony be provided the weight that testimony ordinarily be provided, even though, ordinarily, legal opinions of parties are provided in post-hearing comments?

I'm just trying to understand the scope of your order.

HEARING OFFICER HORTON: One second. Let me confer with Ms. Tipsord.

MS. MANNING: If I may, Madam Hearing Officer, I would just interject as well. In board regulatory proceedings, attorneys and regulatory counsel, and Gary King is very expertly placed in terms of his background to offer that opinion. Certainly we will be arguing this is a brief and providing case law and those kinds of things later.

But I think that the Hearing Officer ruling ought to stand related to his opinion being a legal opinion as an expert regulatory person who has a law degree, who is very familiar with this regulatory structure.

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

HEARING OFFICER HORTON: Okay. Attorneys
have in the past given testimony in Rulemaking hearings, so I will -- my rulings will stand. The board obviously will weigh -- give the appropriate weight to each and every expert witness who's provided testimony yesterday and today, and we understand and are aware of the qualifications and the experiences of each of these witnesses, and we will give them the appropriate weight.

Please continue with your questions, Mr. Hammons.

MR. HAMMONS: Thank you.
BY MR. HAMMONS:
Q. I would like to direct you to Page 18 and, in particular, your response to Question 30-D, as in Delta?
A. Yes. I am looking at it.
Q. So in your response -- well, your response, which is "yes" to the question of: "Are there other programs at Illinois EPA that have the same recordkeeping requirements as the site remediation program?"

So my question is: What are the other
programs that have the same recordkeeping requirements

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

as the site remediation program?
A. Well, let me give you at least one example. I talked earlier about my involvement in the management of CERCLA state-laid sites in Illinois. For those CERCLA sites, under that program, they also have to maintain site specific that is similar to what is contained in the site remediation program.
Q. And does CERCLA assess fees in the same way that the Coal Ash Pollution Prevention Act does?
A. No, it does not.
Q. Are there any other programs other than the site remediation program and the CERCLA program that have the same recordkeeping requirements as the site remediation program?
A. I would classify the Illinois EPA does relative to Department of Defense sites where those same kind of records are kept there as well.
Q. I'm sorry. I don't understand. Can you rephrase?
A. Yes. I will explain a little more. Well, there's various sites in Illinois that the Department of Defense has responsibility for remediation, and the Illinois EPA plays a role in reviewing documents that the defense department submits to the Agency for
review. The Agency contains records relative to the time we spent on those projects.
Q. In those programs you identified, is the purpose of recordkeeping so that the Agency can seek reimbursement of the costs that they incur for the services that they provide?
A. Yes, that's correct.
Q. In the proposed implementation of Part 845, is the Agency seeking cost reimbursement of regulated facilities with surface impoundments?
A. I believe I answered that question. Let me find where I answered.

I think the question that you just asked is similar to the question that's asked by the Agency own Page 26.
Q. I'm there.
A. I think $E$ is the -- answer $E$ is addressing the kind of question that you're asking.
Q. Thank you.

So under the proposed Part 845 rules, is the Agency authorized to seek cost reimbursement from regulated facilities with surface impoundments in Illinois?
A. As proposed by the Agency?

[^46]Q. Yes.
A. No, they're not.
Q. Thank you. That was actually one of my questions. So thank you for hurrying that along.

So I'm going to go back to Page 19 , which is Question 31-A or your response to Question 31-A on Page 19.
A. Okay.
Q. And this question had to do with the five categories of costs incurred by the Agency that Ameren proposes to add as a new subpart $J$.

And the question was: "What's the basis for these categories of costs?"

And your response was: "These are categories of cost for which the Agency maintains information."

My follow-up is if you can explain that a little bit more what you mean?
A. Yeah. I was talking earlier about the site remediation program, and then I talked about the CERCLA program and the DOD program. In each of those areas, there will be -- the Agency will be maintaining records relative to costs that are incurred by the Agency under those programs, and those costs are broken out into different categories, five categories
of cost.
Q. And the purpose of recording those categories of cost is to seek reimbursement from the facilities and the site remediation program or the CERCLA program or the DOD program you referred?
A. Right. It's to make sure that there's a full cost accounting so that when the Agency goes to seek payment from those entities, it's a complete list of services and costs.
Q. Thank you.

My next question is follow-up to your
response on Page 19. This is the next page -- this is Question 32 , subpart $A$, as in alpha.
A. Yes.
Q. This question asks about review of services. In your experience in a site remediation program, what does review of services entail?
A. What it entails is, once a document comes into the Agency and it reaches the project manager's desk, then time spent by that project manager reviewing that document or those documents constitutes the review of services.
Q. And then they can seek -- "they," as in the Agency, can seek reimbursement for the costs incurred

[^47]for those review of services?
A. Yes, that's correct.
Q. Thank you.

So the next question actually is a follow-up to some of your answers to IEPA's questions, and we've already gone over one of them. But there was another one, it's on Page 27 of your answers, and this is IEPA Question 6, subpart G, as in giraffe?
A. Yes.
Q. In your response, you mentioned Section 5-F. Are you referring to Section 5-F of the Illinois Environmental Protection Act?
A. That's correct.
Q. Does section 5-F limit the powers of the Illinois legislature?
A. That's within the powers of the Illinois legislature to adopt to do things and pass legislation.
Q. Sorry. I heard like a train or some sort of noise rolling by when you were answering, so I didn't hear anything?
A. Maybe you could clarify a little bit. Are you saying -- are you asking whether Section 5-F is some kind of limitation by the legislature's authority

[^48]to adopt legislation? Is that what you're asking?
Q. Yes.
A. No, it does not.
Q. And my next question is on actually the previous page, 26. This is in response to -- let me find the subpart. Sorry.

This is subpart -- your response to subpart B of Question 6 by the Illinois EPA. You noted that you're not aware of any legislative record/information that demonstrates how the fees were determined.

Were you involved with the passage of the

## Coal Ash Pollution Prevention Act?

A. No, I was not.

MR. HAMMONS: Thank you. Those are all my questions.

HEARING OFFICER HORTON: Okay. I see it's 4:00, so for the sake of our court reporter and for us in the room, let's take a quick break, and then we'll continue with questions for Mr. King. So let's return at 4:10. Thanks.
(Whereupon, a break was taken,
after which the following
proceedings were had:)
HEARING OFFICER HORTON: It's 4:10. We'll
start up again. This is Vanessa Horton in Chicago.
So we'll continue with questions for
Mr. King.
Midwest Generation, Ms. Gale, any questions for Mr. King?

MS. GALE: I have no questions. Thank you. HEARING OFFICER HORTON: City of Springfield, Ms. Williams, any questions for Mr. King?

MS. WILLIAMS: I have no questions.
HEARING OFFICER HORTON: Dynegy, Mr. More, any questions?

MR. MORE: No questions.
HEARING OFFICER HORTON: Illinois
Environmental Regulatory Group, Ms. Brown, any questions?

MS. MELISSA BROWN: No questions. Thank you.
HEARING OFFICER HORTON: Attorney General's Office, Mr. Armstrong, any questions?

MR. ARMSTRONG: I do have a few follow-up questions.

HEARING OFFICER HORTON: Go ahead.
EXAMINATION
BY MR. ARMSTRONG:
Q. Good afternoon, Mr. King. Can you hear me?

[^49]A. Yes. Can you hear me? We changed our audio system a little bit here. Can you hear me okay?
Q. It sounds good. Thank you.

So I just have a few questions, but I'm going to direct you to two different spots and the first one is on Page 12 of your pre-filed responses, specifically your response to Environmental Group's Question 19-A, as in alpha. And the second spot is Page 18 of your pre-filed testimony.

So let me know when you're ready with both of those documents.
A. Let me just kind of dog ear the one and flip to the other one so I can -- the first one was Page 12, 19-A; is that correct?
Q. Yes.
A. And then the second one was, please, again?
Q. Page 18 of your pre-filed testimony.
A. Okay. I have that.
Q. And what I'm going to do is, in the Question 19-A, it's a quotation from one sentence of your pre-filed testimony, I'm just going to go ahead and read that sentence before it for additional context. So I'm going to read Environmental Group's Question 19-A, inserting the additional sentence from

[^50]your pre-filed testimony on Page 12.
A. Okay.
Q. So Question 19-A, on Page 18 you state: "In USWAG, the court held that the US EPA acted arbitrarily in not including legacy ponds in Part 257 which became effective on October 19, 2015. In its decision, the court was referring to ponds that continued to pose a serious risk of failure and were unaddressed by the federal rule."

The question from the Environmental Group's was: "What statements by the courts support your interpretation of the court's decision?"

And your response was: "The court's discussion of the unique confluence of risks posed by legacy ponds."

And then citations of the USWAG decision, utility solid waste, activities group versus Environmental Protection Agency.

So my questions are about the actual holding of the USWAG decision. First, would you agree that the DC circuit in USWAG held that US EPA acted arbitrarily and capriciously and contrary to RCRA in exempting inactive surface impoundments and inactive power plants from Part 257 when it promulgated the

[^51]
## rule in 2015?

MS. MANNING: You know, I'm going to, at this point, interject an objection and state that Mr. King's legal opinions that he -- the answers to the questions that he posed in relation to the question asked are the extent of the legal opinion he's going to offer in this proceeding; and that other issues related to the debate over what the USWAG decision did or did not do, Mr. Armstrong, we can save for our briefs and our post-hearing comments.

But to engage Mr. King at this point in a regulatory hearing with a banter about what USWAG did or did not hold, in the context of limited testimony in answer to the questions that were posed in specific, I would object to that and suggest that we save that for the briefs.

MR. ARMSTRONG: I'm not engaging in banter. Your witness testified regarding the holding of USWAG. He offered a needle opinion about the meaning of USWAG, and I want to ask him a few questions about his understanding of the court's holding in that case.

If he would like to withdraw his testimony regarding USWAG, I believe your objection would be better taken.

[^52]But if he's going to testify regarding USWAG, he should be asked questions about it.

HEARING OFFICER HORTON: This is Vanessa
Horton. Ms. Manning's objection is overruled. And Mr. King will provide his response to Mr. Armstrong's question.

MR. KING: Would you give me the page number you're referencing as far as that holding statement? BY MR. ARMSTRONG:
Q. The page number of the USWAG decision?
A. Yeah. The page number within it that states the holding.
Q. $\quad 901$ F.3d at 449 to 450 .
A. Can you give me the page number relative to attachment $C$ ?
Q. I don't have attachment $C$ in front of me.

One second, please.
What I'm referring to is in the conclusion section of the opinion, the second paragraph.
A. This is Section 5 of the decision; is that correct?
Q. Yes.
A. So this is on Page 62 of the attachment $C$. And you're referring to which paragraph now?
Q. The second paragraph.
A. It begins with the phrase, "On the claims raised by environmental petitioners"?
Q. Yes.
A. Okay.
Q. I'm sorry. Please?
A. I don't know what the question is now, now that we're on the same page.
Q. Would you agree that the DC circuit held that US EPA acted arbitrarily and capriciously and contrary to RCRA in exempting inactive surface impoundments at inactive power plants from Part 257 when US EPA promulgated the rule in 2015?
A. Well, that's not what it says. I mean, you're kind of -- it looks like you're using some different language than what's in the decision document.
Q. Would you agree that the DC circuit vacated and remanded to US EPA the provisions of Part 257 that exempted inactive impoundments at inactive facilities from regulation?
A. Is this the sentence that begins, "We, therefore, vacate and remand the provisions of the final rule."
(Reporter clarification.)
HEARING OFFICER HORTON: Mr. Armstrong, can you repeat for our court reporter?

MR. ARMSTRONG: Yes. Sure.
BY MR. ARMSTRONG:
Q. In your pre-filed testimony, you stated that in USWAG, the court held that the US EPA acted arbitrarily in not including legacy ponds in Part 257 which became effective on October 19, 2015. In its decision" --
A. Was that --
Q. Let me finish my question, sir.
"In its decision, the court was referring to ponds that continue to pose a serious risk of failure and were unaddressed by the federal rule."

[^53]
questions for Mr. King?
MR. HAMMONS: I have one, Madam Hearing
Officer. This is Jeff Hammons, Environmental Law \& Policy Center.

FURTHER EXAMINATION
BY MR. HAMMONS:
Q. Mr. King, in the preparation for today's hearing, did Ameren provide you any insight into the answers you should provide to any questions you might be posed today?
A. Meaning did I consult with them in the preparation of testimony?
Q. Yes.
A. Yes, I consulted with them.
Q. Were there any things they told you that you were not allowed to say?
A. No.
Q. In your preparation of your pre-filed answers, did you write your answers, or did Ameren have any input in the writing of those answers?
A. I consulted with them on those answers, yes.
Q. Did Ameren provide any feedback on your answers?
A. Yes.
Q. Did you incorporate any of that feedback in your answers?
A. Yes.
Q. In the preparation of your pre-filed testimony, did you consult with Ameren?
A. Yes.
Q. Did you draft your testimony or did Ameren?
A. I drafted my testimony.
Q. Did Ameren provide feedback on your testimony?
A. Yes.
Q. Did you incorporate any of that feedback?
A. Yes.
Q. Did any of the feedback they provide include their opinions on the legal applicability of these rules?
A. No.

MR. HAMMONS: Thank you. No further questions.

HEARING OFFICER HORTON: Any further questions for Mr. King?

All right. Hearing none, Mr. King, I'll not say you're dismissed since you said that you'd like to consult -- or Mr. Wagstaff and you would be testifying

[^54]jointly. So we'll move on to Mr. Wagstaff who has already been sworn in. And so we'll start with questions for

Mr. Wagstaff.
Illinois EPA, Ms. Diers, any questions for Mr. Wagstaff?

MS. DIERS: No questions. Thank you.
HEARING OFFICER HORTON: Environmental
Groups, any questions for Mr. Wagstaff?
MS. BUGEL: We have no questions. Thank you. HEARING OFFICER HORTON: Thank you,

Ms. Bugel.
Midwest Generation, any questions for
Mr. Wagstaff?
MS. GALE: We have no questions. Thank you.
HEARING OFFICER HORTON: City of Springfield,
Ms. Williams, any questions?
MS. WILLIAMS: No questions.
HEARING OFFICER HORTON: Dynegy, Mr. More, any questions?

MR. MORE: No questions.
HEARING OFFICER HORTON: Illinois
Environmental Regulatory Group, any questions, Ms. Brown?

MS. MELISSA BROWN: No questions. Thank you.
HEARING OFFICER HORTON: Attorney General's Office, Mr. Armstrong, any questions?

MR. ARMSTRONG: No questions. Thank you.
HEARING OFFICER HORTON: Pollution Control
Board Technical Unit, Mr. Rao, any questions?
MR. RAO: No questions. Thank you.
HEARING OFFICER HORTON: At this point I will dismiss Mr. King and Mr. Wagstaff. Thank you.
(Witnesses excused.)
HEARING OFFICER HORTON: Ms. Court Reporter, I'd like to go off the record for a minute to discuss procedural matters.
(Whereupon, a discussion was had off the record.)

HEARING OFFICER HORTON: We're back on the record.

We paused briefly to discuss procedural matters. We return now, and we had the following dates: October 30th the record will close in this matter. We will have comments due -- substantive comments will be due on October 23rd, and then responses will be due October 30th. Comments from members of the public will be due by October 30th.

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

And returning to Ms. Bugel's question from earlier about an exhibit, you may file the exhibit as a public comment with the clerk and it can be referenced in your comment and responses.

MS. BUGEL: Okay. Very good. Thank you.
HEARING OFFICER HORTON: With that, we'll end for today and we will continue, though, tomorrow from 5:30 to 7:00 with comments from members of the public.

Thank you, everyone.
(Whereupon, at 4:40 p.m., the above-entitled cause was adjourned to October 1, 2020, at 5:30 p.m.)

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

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

IN TESTIMONY WHEREOF: I have hereunto set my verified digital signature this 22 nd day of October, 2020.

PAMELA L. COSENTINO, CSR

| A | 63:1 97:2,16 | 173:22 189:24 | adjourned 271:12 | 197:22 230:18 |
| :---: | :---: | :---: | :---: | :---: |
| A-2 247:4 | 105:12 111:17 | 190:2 | Adm 1:6 | 259:24 |
| A.B 22:10, 1 | 117:6,22 157:15 | activate 53:7 | Admin 245:4,10 | afterward 37:20 |
| 23:1,10 | 186:20 187:6,11 | activated 53:3,11 | 246:10,19 | age 154:24 |
| a.m 1:15 99:7 | accountability | Active 104:17 | administerin | agency $2: 7,12$ |
| aarmstrong@at... | 136:13 145:5 | actively 15:19 | 129:12 | 38:18 43:24 |
| 3:10 | accountable 121:8 | activist 138:1 | administratio | 44:7 52:9 54:4 |
| Aaron 10 | 168:3 | activities 59:3 | 122:24 143: | 55:13,14 106:22 |
| aba | accounted | 228:11 261: | 143:19 | 119:2 198:3,10 |
| abbreviated 19:6 | 61:14,17 | acts 222:14 | Administrati | 199:3,5,9 201:5 |
| ability 13:1,15 | accounting 2 | actual 78:19 | 100:7 | 201:5,24 204:10 |
| 26:20 31:15 | accumulate | 188:13 201:5 | admit 9:22 223:22 | 211:22 214:7 |
| 32:9,11,16 48:20 | 212:10 214:17 | 261:19 | admitted 81:14 | 224:4,10 233:23 |
| 123:22 189:13 | accumulation | add 38:14 | 180:14 | 235:8,10 237:17 |
| able 14:18 20:19 | 214:17,20,23 | 114:2 197:1 | adopt 159:4 178:8 | 237:19 239:1,2 |
| 32:20 60:13 | 215:9,12 229:24 | 255:11 | 257:17 258:1 | 240:12 245:24 |
| 65:24 68:4 | accurate 16:1 | added 13 | adopte | 246:19 250:7 |
| 78:12 83:5 | 82:22 101:20 | 157:8 | adulthood 103:11 | 253:24 254:1,4,9 |
| 124:18,18,24 | Acer 3:20 | addition 32:23 | adults 177:11 | 254:14,21,24 |
| 138:19 154:4 | achieve 129 | 136:21 149:12 | advance 101:11 | 255:10,15,21,23 |
| 160:4 179:13 | achieved 126:19 | 221:10 240:18 | advantage 31:6 | 256:7,19,24 |
| 187:24 224:6 | 238:20 | additional 12:19 | adversely 163:13 | 261:18 |
| above-entitled | acknowled | 13:24 42:1 | advised 101:18 | Agency's 39:2 |
| 271 | :21 | 84:14 86:2 87 | 102:6 | 44:3 130:1 |
| absence 215:20 | acres 174 | 87:4 88:6,20,2 | advocacy 166:17 | 25:17 233:14 |
| absolutely 58:12 | acronym 237:8,10 | 93:2,7 130:21 | advocate 110:10 | 38:5 248:14,18 |
| 133:22 215:7 | act 17:16,16 36:1 | 190:2 205:1 | 135:24 151:12 | 249:9 |
| 217:19 220:1 | 43:4 89:23 | 260:2 | advocating 143:4 | agency-approved |
| absorption 191:13 | 90:23 106:1 | additionally $13: 1$ | affect 48:14,20 | 40 |
| acceptable 224:3 | 114:16 128:4 | 66:14 126:17 | 164:13 183:18 | aggravated |
| 227:14,15,15 | 129:13 162:1 | 135:11 148 | 183:20 191:12 | 215:23 |
| acceptance 207:7 | 238:4 239:21 | 195:1 | affiliates 140:12 | aggregate 207:18 |
| accepted 33:20 | 45:22 253:9 | address 90:11 | affluent 158:17 | ago 16:10 108:16 |
| 246:3 | 257:12 258:12 | 115:23 116:18 | afford 135:9 | 119:19 |
| access 17:12 109:4 | acted 261:4,21 | 129:14 131:13 | 38:21 152 | gree 16:7,21 |
| 110:11 163:12 | 264:10 265:8,16 | 141 | 153:18 | 40:15 43:7,12,13 |
| 167:14 216:10 | action 21:3 26:7 | addressed | aforementioned | 43:16,21 54:15 |
| 216:19 | 81:10 91:4 | 205:20 | 12:24 | 2:19 83:16,18 |
| accident 84:5,8 | 110:3 114:9 | addressing 117:22 | aforesaid 272:10 | 95:19 197:3 |
| 120:21 | 131:2,3,8 146 | 254:17 | afternoon 100:1,2 | 261:20 264:9,18 |
| accompli | :7 237:8 | adds 172 | 102:12 104:2 | 265 |
| 188:16 | 246:14 247:3,5 | adequate 149:9 | 110:23 116:2 | agreed 148:5 |
| accomplished | 247:10 | 207 | 118:6 130:13 | 59: |
| $44: 6$ | $\begin{array}{\|c\|} \hline \text { actions } 24: 10 \\ \text { 106:16 150:1 } \end{array}$ | $\begin{aligned} & \text { adjacent 69:17 } \\ & \text { 167:3 } \end{aligned}$ | $\begin{aligned} & \text { 152:7 153:4 } \\ & \text { 180:21 193:13 } \end{aligned}$ | agreement 79:14 <br> agrees 38:23 |

L.A. Court Reporters, L.L.C.

312-419-9292

| ahead 49:7 50:5 | 170:22 171:1 | 186:4,5 | 254:17 262:14 | 184:23 185:9,18 |
| :---: | :---: | :---: | :---: | :---: |
| 57:4 64:14 | alter 121:24 | analyzing 187:16 | answered 65:10 | 185:23 222:9 |
| 119:15 124:2 | alternate 80:18,22 | 188:19 190:18 | 65:16 66:17 | pple 42:18 66:4 |
| 157:23 178:15 | 80:23 81:11,11 | Anand 2:5 225:12 | 89:2 210:6 | 84:1 184:4 |
| 198:9 200:7 | 170:12 180:7 | Anastasia 2:3 | 219:13 254:11 | 198:15 |
| 203:18 212:2 | 189:9 | 100:13 179:1 | 254:12 | applicability |
| 225:13 228:21 | alternative 30:21 | AND-4:5,9,14 | answering 39:20 | 70:22 243:1 |
| 233:11 236:18 | 196:14 245:22 | and/or 30:22 | 223:13 257:20 | 268:15 |
| 259:21 260:21 | 246:20 | 43:11,19 48:13 | answers 9:20 17:6 | applicable 175:14 |
| Ahern 135:21,22 | alternatives 15:9 | 186:17 190:20 | 19:2 26:16 | 238:20 244:22 |
| 135:22 | 15:10,11 16:8,13 | Andrew 3:8 55:22 | 37:15,17,18,23 | 245:10 |
| aid 27:17 | 113:21 | Angelou 175:23 | 49:24 65:8 | application 26:20 |
| air 52:9 53:6 | Alton 140:17 | animal 126:3 | 69:24 80:3 | applied 248:9,20 |
| 54:15,22 55:1,4 | 146:23 174:22 | 202:1 | 184:19 188:18 | 249:11 250:10 |
| 55:5,11,14,16,17 | amazing 165:18 | Ann 104:1 | 198:2 208:24 | applies 89:10 |
| 56:18,23 57:10 | ambiguity 64:13 | Annie 105:14 | 211:23 216:2,3 | 136:9 |
| 57:16 60:11 | ambiguous 221:9 | 112:2 | 220:22,22 232:4 | apply 89:23 90:3 |
| 74:19 125:21 | Ameren 3:18 8:8 | announce | 232:10 241:15 | 90:24 111:7 |
| 135:16 153:18 | 34:6 75:12 | 114:22 | 241:24 243:4 | 134:22 146:24 |
| 161:10 | 192:6 218:16 | annual 17:9 180:6 | 244:18 247:24 | applying 135:1 |
| Al-Aswad 105:16 | 233:12 237:21 | 235:4,5,12,13,15 | 248:1 257:5,7 | 139:9 |
| 105:17,19 | 238:6,8,20 239:3 | 235:17 | 262:4 267:9,19 | appreciate $33: 23$ |
| alarm 76:18 | 239:14,17,23 | annually 2 | 267:19,20,21,23 | 102:12 110:15 |
| alerts 114:9 | 240:6,10 247:15 | 240:12 | 268:2 | 129:15 130:6 |
| Alex 103:22 112:2 | 250:22 255:10 | anomalie | anticipated 97:20 | 143:1,3 |
| align 13:19 31:23 | 267:8,19,22 | 182:9 | anybody 221:24 | appreciates 38:17 |
| alleged 243:13 | 268:5,7,9 | answer 15:3 | Apologies 170:24 | appreciation |
| allow 22:12 71:24 | Ameren's 230:16 | 17:8,13 18:2, | apologize 22:23 | 129:16 |
| 73:14 82:21 | 233:3 240:8 | 22:24 23:3 | 61:21 179:15 | appreciative 23:4 |
| 83:14 97:11 | AmerenEnerg | 5:14 26:14 | 223:16 228:4 | 124:5 |
| 103:2 128:17 | 3:17 236:6 | 29:2,2 32:20 | apparent | approach 13:19 |
| 131:10 143:20 | American 120:19 | 47:18 51:23 | 120:19 | 91:4 126:24 |
| 196:17 | 120:20 163:2 | 53:5 54:18,20 | appear 26: | 222:10 237:8 |
| allowed 52:1 | amount 44:11,13 | 62:4 64:9,20 | 196:24 | 239:17 |
| 114:24 141:14 | 210:12 211:2 | 65:10,21,24 66: | appeared 2:12,18 | approaches |
| 148:23 187:23 | ample 167:23 | 66:7 67:2,3,23 | 2:23 3:5,11,17 | 227:23 |
| 267:16 | analogous 244:9 | 68:6 69:3 78:7 | 3:23 4:18 | appropriate 16:15 |
| allowing 139:16 | analysis 17:3 43:1 | 84:22,23 88:15 | 237:18 | 28:16,18 70:14 |
| 188:5 | 61:14,17 82:22 | 89:5,8 90:1,2,5 | appearing 9:3 | 95:21 145:11 |
| allows 196:13 | 83:6,10,11 85:21 | 93:21 94:6 | 100:15 190:8 | 146:16 170:14 |
| 239:1 | 86:8 187:10 | 113:4 193:19 | 192:23 | 185:13 216:18 |
| alongside 17 | 222:8,9 235:23 | 209:4,6,24 212:4 | appears 26:4 43:6 | 245:14 247:22 |
| alpha 242:1 | analytical 199:6 | 213:16 216:5,7 | 164:2 216:4 | 252:4,9 |
| 256:13 260:8 | 200:3 | 224:16 225:4 | 221:1 | ppropriately |
| Alrhage 170:21 | analyze 62:18,22 | 241:24 249:5 | Appendix 184:16 | 206:23 239:19 |

L.A. Court Reporters, L.L.C.

312-419-9292

| approval 233:18 | 217:16 | 135:2 136:5 | asked 18:3 24:22 | associated 58:4 |
| :---: | :---: | :---: | :---: | :---: |
| 234:2,6,11 | arranging 241:8 | 141:7,9,10,11 | 25:10 36:5 | 63:12 89:15 |
| 238:21 | arrive 62:2 | 142:2,6 143:12 | 45:14 67:17 | 90:16 124:21 |
| approvals 238:15 | arsenal 115:10 | 143:23 144:2,5 | 68:9,23 74:18 | 193:21 |
| approved 240:11 | arsenic 108:15 | 144:10 145:6,12 | 78:6 83:9 | Associates 39:10 |
| 245:24 | 125:24 127:11 | 145:14,15,20,21 | 209:19 210:19 | assume 204:24 |
| approving 233:20 | 129:10 160:2 | 146:10,13,14,22 | 219:9 231:2 | 244:17 |
| April 234:3 236:4 | 171:7 | 147:11 148:23 | 235:20 236:8 | assumed 221:6 |
| aquifer 191:3 | article 23: | 149:11 150:2,18 | 243:7 254:13,14 | 222:23 224:13 |
| aquifers 102:23 | articulate 47:21 | 150:21 151:3,4,6 | 262:6 263:2 | 224:22 |
| 103:18 115:7 | artist 135:23 | 152:18 154:14 | asking 6:8 18:8 | assuming 83:7 |
| arbitrarily $261: 5$ | Artists 136:3 | 154:19 158:11 | 24:24 36:12 | assumption 94:24 |
| 261:22 264:10 | arts 136:1 | 159:6,10 160:1,9 | 40:6 51:14 | 229:13 |
| 265:8,17 | asbestos 154:24 | 160:24 161:5,10 | 69:12 70:9 87:6 | assumptions |
| Arcadis 236:20 | ash 17:15 22:11 | 161:20 162:1,24 | 87:9 97:8 | 98:20 202:7 |
| arch 157:5,6,10 | 22:20 23:13 | 163:10,12,18,19 | 149:15 169:21 | assurance 42:24 |
| area 11:16 55:1,1 | 24:14 25:13 | 164:24 165:8 | 177:11,21 | 43:5,8,17 61:13 |
| 55:2,4 58:11,15 | 35:10,16 39:2 | 166:24 167:4,6 | 180:11 183:12 | 62:1,6,7,12 |
| 60:24 104:18 | 49:12 52:19 | 167:10,13,17 | 197:23 228:20 | 129:1 215:15,20 |
| 105:22,23 108:9 | 53:1,9 73:6 | 168:8 169:1,5,7 | 249:8 254:18 | 234:15,22 235:2 |
| 118:8 125:19 | 89:24 91:1,7,13 | 169:19,22 171:6 | 257:23 258:1 | assurances 168:5 |
| 128:7 140:13 | 91:14,18,19,20 | 171:10 172:19 | 265:4,6 | assure 84:20 |
| 158:7 164:15 | 91:23 92:15 | 172:21,23 173:2 | asks 243:13 | 86:11 128:21 |
| 173:8 198:23 | 104:5,5,7,8,11 | 173:9,9,11 | 256:15 | 156:23 157:9 |
| 214:16 226:23 | 104:14,16,21 | 174:21 175:5,10 | aspects 38:23 | 159:5 |
| 247:1,6 | 106:8,11,14,15 | 178:2,3,5 190:19 | 90:17 | assuring 159:10 |
| areas 119:20 | 107:4,22 109:14 | 195:17,19 | assess 16:14 253:8 | attached 9:24 |
| 123:20,20,21 | 111:8,9,12,14,19 | 233:16,20 234:5 | assessment 17:3 | 72:7,8,12 81:12 |
| 128:17 130:21 | 111:21 113:7,9 | 234:5,7,10,12,16 | 39:12 64:21 | 180:8 220:11,12 |
| 141:15 151:1 | 113:13,18,21 | 234:23,24 235:2 | 160:1 189:7 | 220:13,21,22 |
| 167:8 255:21 | 115:5,21 116:11 | 235:23,23 236:3 | 194:19 195:5 | attachment 9:24 |
| argue 97:5 242:14 | 116:13,13,15,18 | 236:7 237:23 | 200:9,13,18 | 82:5 180:5,10 |
| arguing 251:18 | 116:19 118:23 | 238:16,18 | 207:22 208:3,10 | 222:7,8 263:15 |
| argument 48:4 | 120:2 121:4 | 244:24 245:6 | 209:7,13,20 | 263:16,23 |
| 51:21 83:21 | 122:2 123:20 | 248:10,22 | 210:2 219:9,10 | attachments |
| Armstrong 3:8 | 124:21 125:5,22 | 249:13 253:9 | 219:14,17,19,23 | 72:15,21,21 |
| 8:14 192:9,11 | 126:4,6,10,13,16 | 258:12 | 220:8 221:14,24 | 73:16,22 81:14 |
| 218:21,22 | 126:17,22 127:7 | ash-contaminat... | 224:11 227:13 | 81:21 |
| 259:18,19,23 | 127:9 128:4,7,12 | 106:17 | 246:22 | attack 121:1 |
| 262:9,17 263:9 | 128:18,20,22 | ash-impac | assessments 186:3 | attempt 63:9 |
| 265:11,13,14 | 129:2,7,11,12 | 141:15 | assigns 250:1 | attempting 63:1 |
| 266:18 270:3,4 | 130:17,22,23 | ashamed 142:1 | assist 54:16 74:22 | attention 11:10 |
| Armstrong's | 131:6,8,11,14,15 | ashes 120:8,9,24 | 101:19 | 14:24 21:16 |
| 263:5 | 131:19 132:24 | 121:7 | assistance 120:16 | 25:16 102:13 |
| arrangements | 133:9,14 134:14 | aside 90:21 174:3 | assisted 145:1 | 133:8 198:1 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 208:23 | 59:6 63:11 | bad 217:23 | 104:2,4 | believed 169:7 |
| :---: | :---: | :---: | :---: | :---: |
| attenuated 191:3 | 142:8 171:16 | Baldwin 173:10 | bear 43:9 69:19 | 239:4 |
| attorney 3:7,12 | 199:14 252:7 | banter 262:12,17 | bearing 43:18 | believes 126:20 |
| 8:13 34:11 | 258:9 | bar 12:1,10 112:7 | beautiful 106:3 | belong 128:14 |
| 75:16 144:24 | awareness 176:13 | 135:13 | 108:12 125:14 | belt 41:15 |
| 192:9 212:16,18 |  | Barbara 2: | becoming 173:8 | benchmarks |
| 218:20 250:23 | B | 178:24 | began 16:9 66:15 | 165:11 |
| 250:24 251:3 | В 15:4 209:4 | barge 41:13,1 | beginning 214:18 | bend 169:9 |
| 259:17 270:2 | 212:5 233:16 | 42:7 113:22 | 242:16 | beneath 89:11 |
| attorneys 251:15 | 234:16 258:7 | 167:15 | begins 184:8 | 90:4 91:22 92:1 |
| 252:1 | back 27:14 33:16 | barges 42:7 172:2 | 244:20 264:2,22 | 94:4 171:5 |
| attractive 125:10 | 7:24 60:22 | bark 130:9 | behalf $2: 12,18,23$ | beneficial 13:18 |
| Atty 151:19,20,21 | 61:10 66:6 | barrier 201:17 | 3:5,11,17,23 | 17:9 22:19 |
| audio 29:24 88:8 | 67:15 68:12,18 | Barrington | 4:18 30:5 36:12 | 23:13 30:19,21 |
| 88:13 138:6 | 76:9,12 83:7 | 125:18 | 40:7 67:1 | 30:24 31:6,10,18 |
| 154:5 186:24 | 85:23 93:19 | bars 12:11 | 138:22 165:5 | 245:14 |
| 260:1 | 96:2,5 97:22 | base 164:13, | 169:17 178:23 | beneficial-use |
| August 100:18 | 98:22 101:7 | 222:15 | 178:23 197:24 | 12:23 13:5 |
| 234:5 | 103:23 105:15 | based 10:15 11:16 | 250:13 | benefit 46:20 |
| authority 257:24 | 119:17 121:11 | 12:2 13:10 16:1 | behave 224:14 | 120:14 152:5,5 |
| authorized 239:3 | 125:2 134:2 | 18:5 27:2,13 | behaviors 177:3 | 158:22 188:10 |
| 245:23 254:21 | 135:20 138:1 | 28:1,3,4,20 | belatedly 142:1 | 188:11 227:11 |
| automatically | 139:2,3 141:18 | 67:10,11 79:24 | belief 132:18 | benefiting 166:22 |
| 189:3 | 143:11 145:22 | 85:20,21 86:24 | believe 6:7 14:13 | benefits 145:2 |
| availability $32: 3$ | 147:14 149:22 | 98:20 125:4 | 19:5 20:17 23:7 | 146:1 |
| available 10:17,17 | 150:7 151:1 | 148:1 149:11 | 25:10 26:15 | Bennett 114:12 |
| 10:19 11:8 | 154:1,6 155:15 | 188:1 193:20 | 40:9 46:1,17 | best 11:22 78:7 |
| 17:21 18:6,9 | 157:10 159:15 | 195:4 196:5 | 47:10 57:10 | 118:22 136:8,22 |
| 22:18 28:5 31:8 | 162:16 178:11 | 219:20 221:1 | 62:10 65:10 | 139:4,4,7,10,11 |
| 35:5 41:18 | 179:23 180:17 | 223:19 224:19 | 66:17 67:4,10 | 139:22,23 177:1 |
| 86:15 106:23 | 180:22 184:18 | Basel 105:16,19 | 68:6 69:3,7 | beta $242: 2$ |
| 139:10,11,21 | 186:4 203:5 | baseline 57:22 | 70:10 79:1,20 | better 41:2 65:24 |
| 177:13 194:2 | 204:21 205:1 | 58:2,6,9 167:7,9 | 81:1 87:12 | 66:24 67:2 96:3 |
| 220:15 221:14 | 214:18 229:6 | bash 234:7 | 88:18 91:2,5 | 109:2 119:5 |
| 240:10 | 241:13 255:5 | basic 142:13 | 92:12 93:6,12 | 131:23 139:7,8 |
| Avenue 2:8 | 270:16 | 175:21 | 95:4 106:4 | 166:11 175:24 |
| average 12:3,7 | backed 196:23 | basically 119:21 | 128:24 145:4 | 175:24 177:15 |
| 54:24 115:17 | 227:6 | 124:12 175:21 | 149:5 169:13 | 177:17,17,18,20 |
| 227:4 | background | 233:13 | 180:6 181:11,21 | 177:20 205:20 |
| avoid 136:12 | 106:17 141:14 | basis 13:21 22:21 | 184:15 185:20 | 211:19 262:24 |
| 145:7 | 155:10 250:14 | 35:21 49:11 | 189:16,18 | beyond 124:22 |
| aware 17:15 18:1 | 251:17 | 66:13 85:9 | 190:17 200:17 | 128:24 138:12 |
| 18:2 26:24 | backup 163:6 | 95:10,18 96:7 | 219:13 220:14 | 139:19 145:17 |
| 27:11 35:23 | backyard 120:9 | 255:12 | 222:7,11 239:8 | 166:8,9 184:22 |
| 46:23 57:18 | 121:7 | Baskerville 104:1 | 254:11 262:23 | 194:4,23 195:3 |

L.A. Court Reporters, L.L.C.

312-419-9292

| big 181:8 | 239:7,7 250:1,10 | 110:21 112:2 | 48:3 50:6,9,21 | businesses 122:18 |
| :---: | :---: | :---: | :---: | :---: |
| bill 19:17 20:6 | 250:13 251:4,14 | Brass 118:5,6 | 51:1,12,23 52:4 | busy 132:7 |
| bin 53:1 237:7 | 252:4 266:21 | bravo 209:4 212:1 | 55:24 56:14,20 | button 101:3 |
| biomedical 111:2 | 270:6 | break 76:7,8,19 | 56:21 59:19,20 | 112:7 |
| birth 109:16 | board's 17:5 | 82:8 179:17,20 | 62:20 63:14 | by-products |
| bit 31:4 43:14 | 40:15 130:16 | 180:21 258:18 | 68:12 70:4,19 | 17:20 18:10 |
| 67:15 76:8 90:2 | 197:4 198:14 | 258:21 | 71:24 72:6,20 |  |
| 97:19,22 160:13 | 233:24 238:1,1,2 | breaks 12:2 | 73:16,20,23 74:3 | C |
| 194:7 206:8 | 238:3,3,22 248:8 | breast 147:24 | 74:18 75:24 | c 2:1,15 3:1 4:1 |
| 240:2,22,24 | 248:12 | breath 108:22 | 77:18,21 80:8,17 | 5:1 63:16 |
| 241:5 249:15 | boards 226:15 | breathing 145:2 | 81:5 82:3,6,11 | 186:13 233:16 |
| 255:17 257:22 | 239:8 | 146:2 | 82:12 88:12 | 233:20 234:16 |
| 260:2 | Bob 102:10,1 | bridge 216: | 91:12 92:6 | 235:12 246:6 |
| black 124:16 | bodies 158:6 | brief 76:5 179:17 | 93:10,14,16,17 | 248:6,7 263:15 |
| 145:1,1 | body 35:14,18 | 251:18 | 94:20,21 97:5 | 263:16,23 272:2 |
| blades 226:21 | 108:5 159:1 | briefly 270:18 | 179:4,9,15 180:1 | C-E-R-C-L-A |
| Blair 107:6,10 | 175:18 | briefs 262:10,16 | 180:3,23 181:7 | 237:16 |
| Bloomington-N | boiler 204: | bring 32:23 130:2 | 187:3 191:15 | cadmium 171:7 |
| 106:1 | 205:1 | 208:1 | 210:18 269:10 | Cahokia 176:7 |
| board 1:1,10 8:1 | Book 153:5 | bringing 250:12 | 269:12 271:5 | calibrates 98:11 |
| 34:16 38:19 | born 147:23 | Brittney 110:22 | Bugel's 181:5 | calibration 85:21 |
| 40:8 46:20 | 168:21 | 111:1 | 205:17 271:1 | 86:8 |
| 63:11 71:12 | boron 160: | broad 60:19 64 | build 217:22 | call 22:23 23:4 |
| 75:20 100:4,10 | 164:23 | 87:24 | 229:9 230:6 | 100:24 101:6,9 |
| 100:12,13,13,14 | bottle 217:23 | broaden 90:22 | building 13:2 47:5 | 109:23 119:13 |
| 101:17,19 102:6 | bottom 11:11 | broken 100:23 | 157:6 207:12 | 152:2 162:7 |
| 103:4 105:18 | 63:17 101:3 | 255:24 | 227:20 | 172:10 174:12 |
| 110:23 111:5,17 | 157:8 195:17,19 | brothers 153:2 | built 157:5,10 | 175:19 206:10 |
| 111:23 115:15 | 202:3 214:24 | brought 204:24 | 172:20 | 232:23 |
| 116:14 119:5 | 233:16,20 234:5 | 242:19 | bulk 236:22 | called 1:10 144:11 |
| 128:3 129:24 | 234:7,16,24 | Brown 2:5 3:13 | bulldozer 226:21 | 169:23 176:15 |
| 131:16 136:10 | bound 24:23 | 3:20 8:5,6 22:10 | burden 132:24 | 179:12 189:18 |
| 137:14,23 | boundaries | 22:11,15 23:1,10 | burdened 122:9 | calling 101:5 |
| 140:10 147:2,7 | 118:20 | 34:2,4 75:8,10 | 131:21 | calls 165:19 |
| 159:22 160:4,9 | boundary | 191:24 192:2 | burned 102:21 | camera 45:1 |
| 162:7 164:10 | 191:7 | 218:12,14 | 120:3 | camping 123:16 |
| 170:10,16,17 | bounded 47:4 | 259:14,16 | burning 45:20,21 | campus 172:19,20 |
| 171:15 175:17 | bout 219:8 | 269:24 270:1 | 45:22 53:21,22 | cancer 105:10 |
| 177:18 178:8,23 | box 2:9 139:20,21 | Brownfield 138:4 | 120:5,13 144:15 | 108:18,21 |
| 178:24 192:13 | boy 15:5 41:6 | Browning 147:15 | 238:9 | 109:16 147:24 |
| 196:8,13 200:5 | 65:19 67:16 | 147:15,17,21,22 | Burnitz 149:21,21 | 148:6 156:24 |
| 209:1,2,24 213:3 | 200:6 203:20 | Buffalo 158:3 | 154:3,3 179:5 | 158:12,13,16 |
| 213:20,21 | Bradley 239:19 | Bugel 4:2 6:21,24 | burying 127:9 | 194:22 |
| 218:24 237:19 | Brandon 104:15 | 14:12 44:23 | business 141:3 | candidate 132:16 |
| 237:22 238:24 | Brandyn 110:18 | 45:5 47:14,20 | 272:6 | cap 29:12 161:17 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 177:14 | cars 216:13 | 17:18,19,22 18:6 | 205:16 229:18 | 182:24 183:1 |
| :---: | :---: | :---: | :---: | :---: |
| capacity 206:19 | case 23:17 31:23 | 18:22 19:7 | 241:22 267:4 | 186:16 |
| 227:24 | 35:7 58:12 95:8 | 28:22 29:4 | centers 12:7 13:22 | changed 96:1 |
| Capitol 114:12 | 132:22 172:8 | 31:17 33:15 | centimeters | 97:21 260:1 |
| capped 126:16 | 238:23 251:19 | 35:21 41:10,13 | 194:13 | changes 39:5 |
| capping 103:13 | 262:21 | 41:16 44:9,11,12 | central 124:10,14 | 97:17 142:10 |
| capriciously | case-by-ca | 44:16 48:13 | 144:4 151:21 | 182:5 186:19 |
| 261:22 264:10 | 228:9 | 50:15 52:10,12 | centuries 170:6 | Changing 117:21 |
| capture 11:14 | cases 25:3,12 30:9 | 53:20,21 54:5 | CERCLA 237:9 | chapter 114:6 |
| 98:8,9 | 64:1,9,22 146:7 | 58:13,15 64:22 | 237:10,16 253:4 | 153:9 223:17 |
| captured 20:9 | 163:19 203:6 | 65:3 66:11,16 | 253:5,8,12 | characteristics |
| 38:15 | 208:16,16,20 | 69:13 78:15 | 255:20 256:4 | 191:10,12 |
| car 150:5 | 217:17 223:3 | 79:13,19,24 | certain 16:24 | characterization |
| carbon 53:4,7,11 | casks 117:6 | 80:19 91:10 | 33:12,15,17 | 57:7 84:15 85:1 |
| 140:14 150:10 | Cassel 4:11 14:13 | 93:9,9 117:22 | 38:23 46:16 | 85:15 86:21 |
| 161:10 | 14:15,17,20,22 | 129:9 184:9,14 | 60:18 85:18 | 87:13,21 88:20 |
| Carbondale 128:7 | 19:22 20:2,5,16 | 184:17 186:17 | certainly 87:18 | 185:12 187:10 |
| carcinogen 117:4 | 20:22 21:1,21 | 188:13 193:21 | 97:21 171:15 | 187:22 188:2 |
| carcinogens | 22:3 24:1,8 25:7 | 193:24 194:5,9 | 179:14 185:17 | 189:1 |
| 109:15 128:13 | 25:9,18 26:1 | 194:18,21 195:6 | 188:4 206:9,20 | characterizations |
| 154:20 155:3 | 29:15 30:8 | 195:7,13 196:6 | 213:8 214:8 | 88:6 |
| 156:10 | 34:21,21 35:2 | 196:16,19 | 221:5 222:1 | characterize 64:3 |
| care 110:13,15 | cat 44:4 54:12 | 199:16 200:11 | 226:14 239:16 | 249:18 |
| 122:19 129:20 | 186:13 | 201:16,16,21,22 | 243:7 250:8,11 | charge 115:15,19 |
| 146:19 149:17 | catch 42:2 63:6 | 202:8,9,14,17,19 | 251:18 | charged 107:24 |
| 152:14 155:12 | catcher 150:8 | 202:22,24 203:6 | certainty 53:24 | Charlotte 119:11 |
| 155:23 160:5 | categories 255:10 | 203:9 204:3,20 | Certified 1:11 | chart 12:1,19 |
| 165:7 169:11 | 255:13,14,24,24 | 205:1 206:12 | cetera 28:21 | charts 12:10 13:7 |
| 173:21 244:22 | 256:2 | 208:12,18 | CFR 39:3 266 | 27:20 |
| 245:5 | Catho | 209:15,22 | 266:10,14 | cheaper 173:5 |
| cared 108:19,19 | cause 1:9 109:15 | 212:11,24 214:5 | chair 114:6 116 | check 82:6,8 |
| career 124:10 | 147:24 161:9 | 214:6,10,14,18 | 128:5 178:24 | 139:20,21 |
| 148:3 236:22 | 171:9 195:11 | 214:21,22 217:1 | chairpers | checks 10:20 |
| carefully 155:5 | 271:1 | 217:4 223:9,15 | 102:17 | chemical 84:15 |
| carelessly 128:9 | caused 115 | 224:19,21 228:1 | Chairwoman 2 | 118:8 |
| cares 122:6 | 128:8 132:22,23 | 229:5,8 246:9,17 | challenges 109 | chemical-specific |
| caretakers 153:2 | 160:24 246:9 | 246:21 247:2 | 195:12 | 191:10,12 |
| caring 148:14,18 | causes 15 | ceasing 45:20 | Champaign 164:9 | chemicals 108:24 |
| 148:24 | 246:17 | celebrated 114:12 | champions 162:3 | 125:24 126:1,2,5 |
| Carol 112:3,3 | causing 130:17 | cement 207:18 | chance 101:15 | 126:22 158:10 |
| 121:11 | cave 168:9 | center 1:13 4:6,15 | 102:13 103:11 | 158:15 160:2 |
| Carolina 24:14 | CCR 10:15 11:20 | 4:19 6:5 102:2 | 140:1 142:1 | chemist 49:11 |
| 25:3 | 11:22 12:6 | 105:21 125:8 | change 48:12 97:2 | chemistry 183:22 |
| carry 60:11 | 15:20,21 16:8,11 | 146:9 147:10 | 97:5,21 104:17 | 186:20 |
| carrying 60:10 | 16:21,24 17:11 | 150:4 179:24 | 117:18 177:2 | Cheryl 112:4,9 |

L.A. Court Reporters, L.L.C.

312-419-9292

| Chicago 1:13 2:16 | 149:22 154:6 | 249:6 251:2 | 126:6 131:6 | 27:5,13,22 28:1 |
| :---: | :---: | :---: | :---: | :---: |
| 2:21 3:9 4:7,12 | 159:15 162:16 | 265:10 | 136:8,19 137:10 | 28:16 32:12,14 |
| 105:21,22 111:1 | 241:13 | clarify 24:21 | 149:1 165:11 | 32:15 33:1,5,13 |
| 127:6 132:15 | circling 121:11 | 91:19 92:2 | 175:2,3,3,4 | 33:16,17,19,20 |
| 135:23 140:13 | 141:18 154:1 | 240:23 257:22 | 201:23 202:3 | 35:3,9,15,16 |
| 142:4 150:3 | circuit 261:21 | clarifying 15:16 | 203:12 209:7 | 36:13 106:15 |
| 158:4,5,7 160:21 | 264:9,18 266:2,9 | 55:18 79:7 | 210:2 221:8 | 114:15,19,22 |
| 172:4 259:1 | 266:13 | class 92:16 245 | clearly 11:8 32:5 | 131:10,17 |
| 272:6 | circumstance 58:9 | 245:9,15 | 141:7,8,10,13 | 166:15 174:23 |
| Chicago's 158:14 | 60:24 | classification | 145:19 177:16 | 195:13 198:22 |
| Chicago-based | circumstances | 199:1 | 201:11 | 198:22,23 |
| 193:15 | 28:15 229:1 | classify 253:15 | clerk 180:18 | 199:15 202:12 |
| Chicagoan 105:24 | citation 66:16 | clay 194:11,14 | 221:18 271:3 | 202:15,24 |
| Chicagoland | 223:11,17 | clean 112:21 | climate 97:2,5,1 | 203:10,11,12 |
| 105:23 | citations 261: | 114:17,19 122 | 97:21 117:18 | 223:12 224:23 |
| child 140:23 | cite 31:11 | 122:20,21 | 135:24 | 225:5,6 233:15 |
| 165:7 | cited 200:17 | 123:15,15 | clock 178:11 | 233:19,21,22 |
| children 103:10 | cites 129:5 238:24 | 124:24 126:10 | close 11:18 26:7 | 234:3,4,7,9,12 |
| 107:13 121:17 | citizen 144:22 | 131:2 142:23 | 126:14 171:1,2,3 | 234:17,18,18 |
| 138:24 148:10 | 150:16 | 143:5,12 144:13 | 171:24 179:10 | 237:3,23 238:18 |
| 149:17 152:14 | citizenry 133:1 | 144:15 145:5 | 221:24 270:20 | 238:20 239:3,4 |
| 152:15 155:3 | citizens 115:9,12 | 150:15 152:15 | closed 11:13 19:7 | 240:14 246:13 |
| 156:22 165:7 | 115:18 132:20 | 153:17,18 | 131:7 141:9 | cloth 137:4 |
| 170:4,5 173:16 | 169:18 175:19 | 163:14 167:8,19 | 166:13 168:1 | CLP 166:18 |
| choice 30:12 33:5 | 177:20 178:7 | 174:5 178:13,14 | 224:13,14 225:1 | Club 4:20 101:22 |
| choices 177:16 | City 3:2,5 7:21 | 198:22,23 | 225:5 235:23 | 102:18 106:5 |
| choose 137:15 | 29:22 30:5 74: | 199:15 225:1,5 | 238:14,16 | 114:7 115:18 |
| 189:8 247:15 | 146:1 191:18 | cleaned 108:16 | 239:22,23 246:8 | 16:6 128:6 |
| chooses 51:23 | 218:4 259:7 | 125:13 133:20 | 246:17,21 247:1 | 137:21 141:24 |
| 187:23 | 269:16 272:6 | 170:1 | 248:19,19 | 163:8,22 |
| chose 176 | civil 193:17 | cleaning | 249:10,10 | cmanning@bhs... |
| chosen 35:4 | claim 118:16 | 178:5 | closely 39:1 42:7 | 3:16 |
| 148:11 | 159:3 | cleanup 43:9,18 | 176:8 | co-counsel 81:7 |
| Christian 105:21 | claimants 145:1 | 106:13 118:23 | closer 78:1 98:22 | 82:7 |
| CHRISTINE 2:7 | claimed 158:22 | 131:18 132:24 | 182:6 | coal 1:4 17:15,19 |
| christine.zeivel... | claims 118:22 | 138:4 141:11 | closest 164:22 | 18:10 22:20 |
| 2:10 | 264:2 | 147:10 150:19 | closing 11:16 | 23:13 24:14 |
| chromium 126:1 | Clair 112:17 | 150:24 167:5 | 129:15,23 178:5 | 25:12 35:10,16 |
| 129:11 | 140:10 151:23 | 174:4 | 239:18 | 39:2 41:9 45:21 |
| chronic 118:15 | CLAIRE 3:14 | cleanups 176:11 | closure 10:24 11:6 | 45:23 48:12 |
| churches 134:17 | clarification 24:22 | 177:10 | 11:7,19,24 12:12 | 49:12 50:14 |
| circle 101:7 | 25:5 41:24 | clear 33:6 46:16 | 12:13,15,17,20 | 52:23 53:15,16 |
| 103:23 105:15 | 46:12 88:3 92:7 | 46:18 64:15 | 12:21 13:4,12,14 | 53:21,22 54:9 |
| 130:9 134:2 | 199:1 228:12 | 68:13 70:11 | 13:19 15:22 | 73:6 89:24 91:1 |
| 135:20 147:14 | 239:24 248:23 | 106:14 111:11 | 16:2,10,20 27:2 | 91:7,13,14,18,19 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 91:20,23 100:8 | 166:24 167:4,10 | collect 86:6 87:4 | comes 52:19 85:12 | 153:15 157:9 |
| :---: | :---: | :---: | :---: | :---: |
| 102:21 104:5,5,7 | 167:13 168:8 | 96:2 | 162:5 199:18 | committees 157:3 |
| 104:11,14,16,21 | 169:1,5,7,19,22 | collected 10:19 | 256:18 | common 35:17 |
| 106:8,11,15,16 | 171:3,6,10,16 | collection 27:9 | coming 57:1 | 134:12 139:9 |
| 107:4,22 109:14 | 172:1,19,21,22 | 39:17 48:21 | 78:14 97:19 | 148:13,18 149:6 |
| 111:8,12,19,21 | 173:2,9,9,11 | 63:19 64:17 | 162:2 164:18 | communicate |
| 112:21 113:7,13 | 174:21 175:5,10 | 65:2,12 82:22 | commencing 1:15 | 69:6,8 |
| 113:21 114:15 | 178:2,3,5 186:17 | 193:22 195:1,2 | commend 166:7 | communities |
| 114:20 115:5,20 | 217:2 236:3 | 195:11,15,23 | commended | 67:18 68:10,24 |
| 115:21 116:11 | 237:23 238:9,18 | 196:9 200:10,15 | 239:19 | 69:14,17,18 |
| 116:12,13,13,15 | 253:9 258:12 | 200:19 201:2,6 | comment 76:13 | 102:24 106:20 |
| 116:18,19 | coal-burning | 201:21 202:18 | 99:5 100:16,23 | 113:14 116:9 |
| 117:15 120:2,3,4 | 144:2,7 154:13 | 202:23 203:21 | 101:1,9,13,18 | 117:11,20 122:9 |
| 120:13,20,21 | coal-combustion | 204:12 205:24 | 102:3,5,13 104:3 | 123:21 127:1 |
| 122:2,13 123:20 | 52:17 | 206:4,22 208:11 | 106:23 107:9 | 128:10 130:3 |
| 124:15,17,19,20 | coal-fired 102:21 | 208:17 209:8,14 | 123:8 128:2 | 136:14 137:5,11 |
| 124:21 125:5,5 | 120:22 | 209:21 210:4,11 | 145:4 150:1 | 145:15 146:21 |
| 125:22,23 126:4 | coal-mining 145:3 | 210:13 211:2,3 | 152:8 159:9 | 146:22 158:18 |
| 126:13,16,17,22 | coals 120:18 | 212:8 213:1 | 178:19 180:19 | 162:6 167:19,22 |
| 127:7,9 128:4,7 | Coats 110:22,23 | 214:5 219:12 | 213:2,20,23 | 170:1 171:24 |
| 128:9,12,18,20 | 111:1 | 221:3,6 222:18 | 221:18 223:23 | 175:8,9 |
| 128:22 129:2,6,8 | Code 1:6 100:7 | 223:5 225:19,21 | 249:24 271:3,4 | community 70:2 |
| 129:11,12 | 245:4,10 246:11 | 225:23 227:8 | commented | 71:5 110:1 |
| 130:16,17,18 | 246:19 | 229:23 247:8 | 128:22 | 116:8 117:1,23 |
| 131:6,8,11,14,15 | codified 39:3 | collections 208:22 | commenting | 118:24 119:7 |
| 131:19,22 | Cogan 236:6 | color 171:24 | 123:9 130:14 | 131:19 139:14 |
| 132:24 133:9,14 | Cogen 3:17 | column 207:14 | comments 68:2 | 158:20 163:14 |
| 134:14 135:2 | Cogie 127:21,22 | columns 207:12 | 71:3 76:10 | 166:12,15 |
| 136:5 141:7,9,11 | 128:1 | 207:17,19 | 100:19 101:12 | Compact 133:5 |
| 141:15 142:2,6 | COHEN 10:7 | combination | 102:1,8,14 107:3 | companies 115:20 |
| 143:12,23 144:2 | coherent 136:15 | 12:24 109:14 | 110:19,20 | 118:11,16 |
| 144:4,5,9,14 | 136:18,22 | 133:13 | 125:12 128:16 | 122:13,17,17 |
| 145:6,20,21 | coincide 181:17 | combining 201:17 | 179:3 239:13 | 128:9 137:12 |
| 146:10,13,14,22 | coincidence 32:6 | combustion 1:4 | 251:8 262:10 | 145:18 165:12 |
| 147:10 148:23 | 32:10,24 | 17:19 18:10 | 270:21,22,23 | 165:20 171:17 |
| 149:11 150:2,18 | collaboration | 48:13 50:14,15 | 271:8 | 173:21,24 |
| 150:21 151:3,4,6 | 136:6 | 50:16 52:23,24 | commercial | 175:10 |
| 152:18 154:14 | collaborative | 100:8 186:17 | 166:16 | company 3:18 |
| 154:19 158:11 | 136:7 | come 76:9 109:19 | commingled | 138:3 145:3 |
| 159:6,10 160:1,9 | collapse 126:21 | 111:10 122:18 | 52:11 | 151:9 |
| 160:24 161:5,10 | 144:9 | 125:1,2 133:8 | commit 103:15 | company's 151:13 |
| 161:12,20 162:1 | collapsing 145:24 | 138:5 143:5 | 223:11 | comparable 59:8 |
| 162:24 163:10 | colleague 205:17 | 146:21 148:7 | commitment | 129:18 |
| 163:11,12,18,19 | 210:18 | 170:6 199:10 | 103:12 | compared 13:9 |
| 164:22 166:12 | colleagues 165:5 | 239:14 | committee 152:3 | comparison |

L.A. Court Reporters, L.L.C.

312-419-9292

| 243:1 | 219 | 207:12 | connect 115 | 139:2 160:6 |
| :---: | :---: | :---: | :---: | :---: |
| compa | compo | concur 240:13 | 32:6 | consistent 26:11 |
| 124:17 | 64:22 193:21 | concurred 246:20 | connected 109:8 | 180:13 182:16 |
| competent 196:13 | 194:21 | condition 223:20 | 133:16 152:7 | 247:4 |
| 196:23 | compost 150:8 | conditions 85:5 | 192:24 | consistently |
| compiled 177:14 | comprehensive | 85:17 94:3,12,17 | connection 33:2 | 185:15 |
| complete 141:11 | 137:9 162:5 | 94:24 95:3 | 93:4 | consists 134:17 |
| 151:7 167:6 | 163:24 | 96:11 129:1 | connecti | 194:10 |
| 239:2 256:8 | compressed 13:23 | conduct 248:11 | 94:12 | constant 112:19 |
| completed 131:8 | compromised | 248:22 249:13 | Connie 114: | 222:24 223:1 |
| 200:9 202:9 | 143:14 | conducted 66:12 | consciously | constantly 153:7 |
| 246:12 | computer | 7:7 79:9 | 130:19 | constituent 190:8 |
| completely 32:21 | 154:5 | conducting 66:15 | consent 23:22 | 191:2 223:1 |
| 179:9 206:12 | concentrations | conductivity | 24:9 25:2,10 | constituents 61:2 |
| 226:1 | 146:14 223:1 | 211:15 | consequence | 182:15 184:10 |
| completing | 244:24 245:1,2,6 | confer 180:16 | 120:12 | 184:14,22 185:1 |
| 246:12 | 245:8 | 241:15 251:12 | consequences | 190:19 191:3 |
| completion | concep | conferencing | 207:20 | constitutes 256:21 |
| 202:12 244:21 | conceptual 15:10 | 88:13 | conservation | construct 204:5 |
| 245:5 | 85:2,7,9,14 | confidence 239:2 | 176:23 | 204:16 227:18 |
| complex 8 | concern 56:10 | confident 58:8 | conserva | constructed 137:4 |
| complexity 85:17 | 56:22 57:7 | 149:9 199:8 | 207:21 | 202:17,22 |
| 85:18 | 71:24 80:23 | confirm 55:22 | consider 11:23 | 215:16 |
| compliance 36:1 | 135:8 142:7 | 6:1 58:24 | 31:20 41:14 | construction |
| 78:15,16 79:5,12 | concerned 102:20 | 83:20 96:14 | 74:15 109:7,9 | 215:15 234:14 |
| 79:14 | 106:6,7 115:4 | 239:16 249:8 | 111:5 123:3 | 234:22 235:1 |
| compliant 28:19 | 116:10 128:7 | confirmation | 181:19 196:15 | 247:3,10 |
| 29:9 | 133:6 155:19 | 189:15 | 99:4 201:24 | consult 267:11 |
| complica | 158:9 163:9 | confirmin | 203:12 213:20 | 268:5,24 |
| 145:23 | 165:3 | 248:17 | 216:12 217:7 | consultant 237:21 |
| complimentary | concerning 18:9 | conflict 120:21 | consideration | consulted 267:14 |
| 201:18 | 160:11 237:23 | 243:13,19,22 | 21:11 97:7 | 267:21 |
| comply 33:13 | concerns 29:1 | 244:9,16 247: | 106:19 136: | consulting 236:20 |
| 66:20 78:10,24 | 57:24 70:24 | 247:17 | 216:16 | 236:21 |
| 173:24 | 71:2,17 83:5 | confluence 261:14 | considerations | consumers 127:14 |
| components | 104:10 105:4 | conformity | 10:23 28:21 | consumption |
| 201:19 | 107:3 143:11 | 234:18 | 67:18 68:10,13 | 246:2 |
| composite 63:19 | conclude 9:1 | confounding 56:4 | 68:14,24 69:4 | CONT'D 3:1 4:1 |
| 63:20 64:18,19 | 225:1 | 7:10,12 | 216:8,9 | 5:1 |
| 65:13,14 194:7,9 | concludes 29:15 | confuse 248:12 | considered 55:15 | contact 52:19 |
| 194:10,16,17 | conclusion 213:12 | confused 221:3 | 86:17 97:9 | 68:1 111:19 |
| 197:2 200:12,14 | 263:18 | confusing 170:23 | 113:21 134:22 | 31:8 137:7 |
| 200:20 201:15 | conclusions | congregations | 167:16 200:19 | 148:23 163:3 |
| 206:6,24 207:3 | 194:20 | 112:15,16,23 | 202:14 213:2 | contain 113:16 |
| 208:20 211:14 | concrete 207:12 | 140:9 151:22,24 | considering 24:10 | 129:9 172:3,4 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 223:5 265:2 | continue 51:6 | 52:16 | correctly 62:9 | 119:22 163:19 |
| :---: | :---: | :---: | :---: | :---: |
| contained 44:12 | 86:7 103:3 | convey 31:16 | correlation 33:2 | 193:5 201:14 |
| 170:3 210:3 | 128:18 161:12 | conveyer 217:13 | 118:18 | 208:4,8 231:9 |
| 246:6 253:7 | 246:14 252:10 | conveyor 41:15,16 | Cosentino 1:11 | 237:11,13 249:2 |
| containing 104:14 | 258:19 259:2 | 41:21 42:8 | 272:4,17 | 258:17 261:4,7 |
| containment | 265:23 271:7 | 45:15,16 46:6,15 | cost 13:1,15 26:20 | 265:8,12,16,22 |
| 151:8 | continued 129:20 | 46:15,17,22,22 | 27:3,6,13,14,19 | 270:11 272:5 |
| containments | 142:20 261:8 | 46:24,24 47:8 | 27:21,21 30:18 | court's 261:12,13 |
| 151:9 | continues 11:19 | 217:17,18 | 32:7,10,11,12,16 | 262:21 266:15 |
| contains 125:23 | 12:16 16:13,14 | conveyors 46:18 | 32:17,24 42:24 | Courtney 4:6 7:1 |
| 171:6 223:4 | 68:1 | 47:2,3 | 43:9,18 61:14 | 7:3,6 |
| 251:4 254:1 | continuin | COOL 232:23 | 62:1,11 63:1,10 | courts 261:11 |
| 272:10 | continuously | corporate 171: | 158:24 254:9,21 | Covenants 245:22 |
| contaminant | 204:2 | Corporation | 255:15 256:1,3,7 | cover 89:15 91:14 |
| 240:17 | contract | 177:19 | costly $32: 14,15$ | 92:3 150:23 |
| contaminants | contradiction | corporations | costs 62:5,7 63:12 | 169:22 247:7 |
| 104:17 135:5 | 138:9 | 122:3 127:8 | 254:5 255:10,13 | covered 90:8,16 |
| 191:8 244:24 | contrary 261:22 | 136:12 137:9,15 | 255:22,23 256:9 | 133:10 160:12 |
| 245:6 | 264:10 | 158:22 159:2 | 256:24 | 175:2 |
| contaminate | contributin | 165:16 168:3 | counsel 2:3 | covers 116 |
| 120:24 126:5 | 116:15 | correct 15:23,24 | 250:15 251:16 | 189:17 |
| 133:15 | control 1:1,10 | 19:9,10 20:14 | count 11:12 210:8 | COVID 123:14 |
| contaminated | 8:19 17:5 34:16 | 21:8 23:23,23 | counties 112:17 | 146:7,7 |
| 40:17,19,23 | 38:19 53:8 | 24:15,16 26:3,22 | 151:23 152:1 | COVID-19 |
| 129:20 152:17 | 56:17 71:12 | 28:2,3,23,24 | counting 131:4 | 148:16 |
| 163:4 197:6 | 75:19 100:3 | 33:5 35:5 37:21 | countries 120:23 | CPA 124:9 138:2 |
| 198:17,19 | 103:4 105:18 | 53:17 57:6,13,15 | country 119:18 | CQA 215:14 |
| 199:24 | 115:15 116:14 | 63:23 83:23 | 120:14 142:9 | 234:15,20,23 |
| contaminating | 129:24 137:14 | 84:8,9 94:13,1 | 144:5,13 163:19 | CQAs 234:16 |
| 143:24 | 159:22 160:9 | 95:1 96:17 | County 38:15 | CR 130:17 |
| contamination | 164:9 170:10,17 | 182:23 206:17 | 104:4 108:10 | cracking 163:20 |
| 43:11,20 115:4 | 175:17 177:18 | 206:23 219:15 | 116:6 140:10,14 | create 141:3 147:7 |
| 130:2 144:6 | 178:8 192:12 | 225:4 254:7 | 144:23 172:17 | 222:13 248:9,21 |
| contend 113:4 | 196:7 197:4 | 257:2,13 260:14 | 174:19 272:2 | 249:12 |
| 134:21 | 204:11 209:2 | 263:21 266:5,8 | couple 13:12 | created 144:7 |
| content 48:24 | 218:23 245:19 | 272:8 | 96:14 205:19 | 145:24 155:22 |
| contents 20:8 | 266:21 270:5 | corrected 62: | coupled 240:15 | 157:14 168:24 |
| 26:10 31:17 | controlling 240:16 | correcting 56:20 | course 98:11 | 169:1 226:22 |
| context 60:20 | controls 54:17 | corrective 39:12 | 111:6 124:19 | creation 112:19 |
| 68:17,20 69:15 | 56:10 171:16 | 81:10 88:22 | 173:12 175:17 | 134:12 |
| 83:4 84:23 | convenient 104:7 | 91:4 106:16 | 180:4 185:14 | creative 136:8 |
| 95:11 260:23 | 106:24 | 131:7 186:11 | 186:10 | creatures 134:13 |
| 262:13 | conventional | 187:11 189:10 | court 6:17,18 9:12 | creek 140:15,16 |
| continual 98:23 | 133:21 | 237:8 246:14,23 | 25:8 37:3 63:3 | 140:18 164:21 |
| continually 204:8 | conversation | 247:2,5,10 | 101:19 102:4 | 167:4 176:7 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 177:10 | Cynthia 2:4 179:1 | 234:19,21,24 | 110:21 112:2 | 213:11,16 214:6 |
| :---: | :---: | :---: | :---: | :---: |
| Criage 170:21,22 | D | 235:3 | December 200:9 | definitions 136:20 |
| crises 174:9 | D | dates 270:20 | decide 51:22 | 137:10 |
| criteria 27:7,10 | D 15:4,6 63:17 | daughter 106:3 | 207:16 | degradation |
| 29:7,13 94:11 | 66:7 80:6 | 121:1 149:16 | decided 50:20 | 142:24 |
| 194:22 199:17 | 233:23 234:1,20 | 176:1 | 230:22 | degree 251:23 |
| 207:7 208:21 | 238:24 242:5,11 | daughter's 103:6 | deciding 32:18 | delay 83:10 |
| 211:18 | 243:2 244:24 | Dave 193:13 | decision 12:22 | deleted 196:10,12 |
| critical 67:19 | 245:6 | David 5:6 15:4,6 | 27:8,12 30:22 | deliver 217:2,2 |
| 68:11 69:1 | d/b/a 3:18 | 39:8 41:1 63:21 | 32:13 50:6 | delivered 217:12 |
| criticizing 120:13 | dad 124:15,18 | 63:24 64:21 | 153:21 180:20 | delta 227:20 |
| crops 173:18 | damage 64:1,9,22 | 192:22 240:3 | 213:22 233:24 | 229:9 252:16 |
| Cross 163:2 | 109:16 117:16 | day 1:14 111:24 | 261:7,12,16,20 | demand 31:14 |
| cross-section | 132:21,23 | 120:3,5 125:14 | 262:9 263:10,20 | democracy 166:6 |
| 224:15 | 135:10 161:8,16 | 156:7,7 175:23 | 264:16 265:7,19 | demolition 166:16 |
| crosses 45:17 46:2 | 163:19 171:9 | 230:14 272:13 | 265:22 | demonstrate |
| CSR 272:17 | 183:17 203:6 | daycare 165:6 | decision-making | 40:22 89:23 |
| cubic 12:4,6,9 | 208:16,16 | days 50:20 149:7 | 12:12 | 199:23 |
| 17:22 19:5,7 | damaged 159:1 | 167:23 177:7 | decisions 30:12 | demonstrated |
| 24:18,19,20 | 196:24 | 189:6,9 | 35:15,19 247:22 | 29:5 |
| 25:12 | damaging 177:3 | DC 4:16 261:21 | decisive 131:3 | demonstrates |
| cumulative 105:4 | Dame 132:17 | 264:9,18 266:1,9 | deck 150:7 | 13:3 258:10 |
| 105:11 117:7,12 | danger 126:21 | 266:13 | decontaminated | demonstrating |
| 117:24 | 156:4,22 157:4 | de-water 31:15 | 194:1 196:21 | 234:17 |
| Curie 178:24 | dangerous 110:5 | de-watering | 198:23 | demonstration |
| curious 19:11 | 120:6 126:2,4,22 | 202:13 | decontamination | 80:19,22 81:12 |
| current 53:14 | 127:15 140:24 | dead 228:7 | 198:12 | 180:7 189:9 |
| 86:16 90:17 | 142:9 149:18 | deadlines 82:20 | decrease 207:4 | 246:20 |
| 95:12 96:11 | 157:13 | 82:24 151:8 | decreasing 240:7 | demonstrations |
| 113:6 126:8,10 | dangers 127:10 | deadly 125:24 | decree 25:2,10 | 80:24 |
| 169:14 176:13 | data 10:20 17:12 | deal 190:1 | decrees 153:11 | denied 146:1 |
| 186:23 187:4,8,9 | 18:4,6,13,16,21 | death 109:17 | dedicate 175:12 | denominator |
| 189:5,12,22 | 28:4 35:5 82:22 | 113:8 120:22 | dedicated 177:7 | 139:9 |
| 191:5 | 83:6 86:3,5 | debase 196:4 | deemed 73:12 | densely 131:18 |
| currently 27:22 | 111:12 175:2 | debate 67:13 | deep 142:7 226:13 | deny 118:16 214:1 |
| 27:24 35:23 | 177:13 182:4,12 | 262:8 | defects 109:17 | 250:19 |
| 71:9 86:13,14 | 196:23 | debilitating | defense 253:16,22 | department |
| 89:14 102:17 | data-intensive | 118:15 | 253:24 | 144:23 235:24 |
| 104:23 117:2 | 15:11 | Deborah 3:2 30:5 | defer 180:20 | 236:5 253:16,21 |
| 128:17 133:9 | dataset 10:21 28:3 | 218:6 | 230:23 231:3 | 253:24 |
| 177:6 | 191:1 | deborah.willia... | define 56:8 185:2 | depend 94:16,23 |
| CURRIE 2:2 | date 126:19 | 3:4 | defined 214:11, 12 | 115:12 173:21 |
| cut 59:17 101:14 | 238:12 | decades 118:10 | defining 148:24 | 226:5 |
| 127:15 240:1,21 | dated 233:16 | 170:6 | definition 136:8 | dependent 169:12 |
| CV 159:24 | 234:3,5,8,10,12 | DeCecco 110:18 | 212:11,24 213:2 | depending 85:16 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 96:10 191:9 | 48:18,19 50:13 | 157:6,11 | 91:3 111:21 | 114:17 181:14 |
| :---: | :---: | :---: | :---: | :---: |
| 206:7 229:10 | detail 16:22 | Diers 2:8 7:14,16 | 137:7 156:1 | 181:22 200:23 |
| depends 44:10 | 128:15 | 14:8 36:4,4,8,10 | 160:23 175:5,6,7 | 261:14 270:14 |
| 206:15 211:5 | detailed 84:14 | 36:11,16 40:2,4 | 241:23 247:23 | discussions 97:15 |
| depicted 224:14 | 95:17 148:24 | 40:6 42:10 | 252:14 260:5 | disease 109:16 |
| deposited 222:13 | 169:15 | 44:19 45:14 | directed 210:19 | 110:13 |
| deposits 150:21 | details 20:9 54 | 77:15 197:17,19 | directing 175:15 | dismiss 76:2 270:9 |
| 158:11 | detect 188:21 | 197:21,23 205:4 | 175:20 212:22 | dismissed 9:3 |
| depression 214:15 | detected 60:2 | 219:4,4,7,18 | 249:23 | 36:20 192:18 |
| deprive 153:11 | 188:22,24 | 220:3,5,9,17,20 | direction 207:10 | 230:12 268:23 |
| depth 226:14,18 | detection 182:15 | 220:24 222:2 | directive 12:23 | disobey 156:20 |
| 227:2,10 | 188:13 189:2,3 | 224:5,18 225:7 | 19:9 | disposal 1:4 39:2 |
| deregulated 13:10 | 189:11,14 | 228:18,23 | directives 19:12 | 100:8 115:5 |
| Des 46:4 104:20 | determine 40: | 229:14 241:9,11 | directly 41:15 | 132:24 159:11 |
| 105:2 | 84:13 87:3 | 242:17,17 269:5 | 64:11,13 108:1 | disposes 214:22 |
| describe 244:11 | 182:7 184:24 | 269:7 | 109:21 110:9 | disproportionat... |
| 244:15 | 198:19 250:8 | difference 46:21 | 111:15,18 | 131:21 |
| described 38:16 | determined 30:20 | 210:7 | 117:14 118:19 | dissertation 133:4 |
| 39:6 41:22 | 186:2 245:1,7 | differences 46:23 | 133:16 144:1 | dissipate 109:18 |
| 105:8 | 258:10 | 47:7 244:11 | 161:4 164:12 | distance 129:5 |
| describing 30:11 | determines 27:1 | different 24:14 | director 38:11 | 158:4 |
| description 41:9 | 85:13 87:7,10 | 47:1 48:11 61:2 | 134:8 151:21 | distances 59:11 |
| 235:6 | determining | 61:3 66:18 | dirty 114:19,24 | distinguish 58:22 |
| deserve 108:7 | 54:16 | 176:19 191:9 | 178:12 | distraction 240:16 |
| 124:24 131:23 | devastate 109: | 206:13 207:10 | disadvantaged | ditch 176:15 |
| 178:15 | develop 15:22 | 236:24 238:6 | 106:20 | diverse 156:12 |
| deserves 124:23 | 16:2,10,20 85:2 | 243:13 244:6,9 | disassembl | Division 250:15 |
| design 15:10 | 86:5,20 87:8 | 247:14,15 | 171:4 | 250:16,17 |
| 29:13 196:5,13 | 115:13 247:2 | 255:24 260:5 | disaster 169:4 | dock 41:11,17 |
| 206:13 207:21 | developed 79:24 | 264:16 | disasters 163:6 | 172:3 |
| 211:5,17,18 | 84:20 85:14 | differentiate | discharge 96:19 | docket 100:10 |
| 215:2,21 227:23 | 86:12,24 | 210:6 | 229:2 | s 42:6 |
| 229:12 | developing 86:23 | difficult 42: | disclosure 240: | doctor's 148:4 |
| designed 212:9 | 87:2 88:5 | 118:21 156:1 | discovered 119:19 | doctors 147:24 |
| 214:16,20 215:8 | 185:13 188:6 | 241:5 | 180:9 | document 17:2 |
| 215:12,22 | development | difficulties 41:10 | discretion 151:10 | 8:1 22:7,16,18 |
| 217:19 228:1 | 84:12 85:10 | 121:14 179:6 | discuss 49:9 70:14 | 22:21 23:11 |
| 229:3 | 87:20,22 88:10 | digital 272:13 | 270:12,18 | 7:17 121:20 |
| designer 135:23 | 88:21 120:22 | dignified 112:21 | discussed 20:13 | 200:22 208:24 |
| designers 216:24 | 163:1 237:2 | diked 214:16 | 68:14 208:14 | 220:15 233:18 |
| designing 207:11 | dialogue 71:5 | diocese 134:8,17 | discussing 66:22 | 233:22 256:18 |
| designs 196:14 | die 118:15 120:20 | 134:18 | 73:8 80:15 | 256:21 264:17 |
| desk 256:20 | 121:16 157:7 | dioxide 161:10 | 201:1 213:14 | documentation |
| desperately 115:3 | died 108:18,21 | direct 6:24 21:16 | discussion 23:10 | 104:13 165:13 |
| desulfurization | 145:23 147:23 | 25:15 65:16,20 | 24:11 73:3 83:4 | documented 94:3 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 95:3 | drain 203:22 | 37:5 76:23 | 219:8 253:3 | 56:11,17,19,23 |
| :---: | :---: | :---: | :---: | :---: |
| documenting | 204:20 214:24 | 193:6 231:17 | 255:18 271:2 | 85:24 201:17 |
| 176:13 | 215:11 | 272:4 | early 76:8 235:18 | 238:11 240:16 |
| documents 106:23 | drainage 196:3 | dump 104:7 | 238:16 | 261:6 265:18 |
| 167:23 233:13 | drained 204:2,8 | 118:23 120:8,9 | earth 142:8,11 | effectively 201:11 |
| 233:15 234:19 | draining 44:6 | 120:23 121:6 | 150:17 153:2 | effects 97:6 106:8 |
| 235:19 253:23 | 226:1 | 167:10 173:2 | earth's 151:13 | 106:19 132:21 |
| 256:21 260:11 | drains 204:14 | dumping 120:2 | EarthJustice 4:10 | 145:20 160:23 |
| DOD 255:20 | draw 122:16 | 158:14 | 34:22 | efficient 119:6 |
| 256:5 | 152:23 | dumps 110: | Earthju | effort 150:13 |
| $\operatorname{dog} 44: 1,866: 7$ | dries 128:2 | 116:13,15,19,19 | :19 | efforts 20:13 |
| 80:6 260:12 | drinking 102:2 | 126:11 149:12 | eases 135:14 | 170:18 |
| doing 58:1 71:15 | 115:8 152:15 | 160:9,11 | easier 73:19 173:5 | eight 201:9 |
| 89:3 103:15 | 158:8 | dumpsters 121:5 | 232:21 249:4 | eighteen 236:2 |
| 119:6 122:1 | Drive 2:15 3:20 | duplicate 175:1 | easiest 214:9 | eighth 234:11 |
| 132:20 148:14 | 4:7,11 102:15 | 189:18 | East 2:8 3:3 4:7 | either 41:18 44:12 |
| 148:19,22 149:8 | driver 12:11 | dust 54:17 55:3,6 | 102:15,18 | 88:9 201:16 |
| 150:9,16 151:5 | drives 239:21 | 55:10,12,15 | 112:15 140:9,17 | 215:19 217:2 |
| 153:8 157:11 | driving 12:21 | 56:10,17,24 | 151:22 | EJ 117:11 167:18 |
| 161:21 164:2 | Drogan 119:11,11 | 57:11 58:2 59 | easy 161:22 | elaborate 29:1 |
| 177:1 242:16 | dropped 22:24 | 60:1,22 61:1 | 227:21 | 206:8 |
| 243:16 247:16 | 23:4 | 74:16 113:12, | echo 142:18 | electric 3:18 39:3 |
| 272:5 | dry 48:7,18 50:12 | 145:6,11,24 | ecology 176:23 | 113:23 150:5 |
| dollars 12 | 51:3 52:6,11,12 | 146:3 167:15 | economic 43:1 | 167:16 |
| dominant 11:6 | 52:16,19 103:18 | 195:20 | 61:15,17 62:13 | electricity 15:20 |
| donated 137:4 | 111:21 117:5 | Dutton 172: | 62:16,18,23 | 169:1 238:9 |
| Doom 153:10 | 166:23 195:18 | dying 105:10 | 138:16 174:8 | elements 16:24 |
| door 48:9,22 | 195:19 223:20 | 110:13 | 175:7 | elephant 80:7 |
| 50:17 | dry-handle | Dyna 236: | economy | 89:5 |
| doubt 158:16 | 52:18,20 | Dynegy 2:18 8:1 | 124:22,23 125:3 | elevated 108:15 |
| Douglas 116:1 | DSI 48:7,23 49:9 | 74:9 140:19 | 125:6 | elevation 129:4 |
| downstream | 49:10,14,18,21 | 166:13,18 218:9 | ecosystem | 181:18 236:2 |
| 108:10 144:3,3 | 52:16,21 | 239:15 259:10 | ecosystems 115:12 | elevations 94:10 |
| downtown 105:22 | Duck 164:21 | 269:19 | 165:21 | 94:16,23 95:4 |
| downwind 58:11 | duck | Dynegy's | Edna | 81:12 182:22 |
| 59:2 | ducts 135:3 | 164:22 | educate 135: | 83:1,5,10,13,19 |
| r 111:1 164:7 | Dude 105:14 |  | education 138:16 | 183:20 |
| draft 89:18 113:9 | 112:2 | E | 72:16 193:15 | Eleven 234:22 |
| 116:17 169:14 | due 29:11 1 | E 2:1,1 3:1,1 | Edwardsville | eliminate 185:8 |
| 209:11 268:7 | 110:20 117:17 | ,1 80:6 | 174:17,18 176:3 | eliminated 177:5 |
| drafted 88:19 | 117:18,24 123:8 | 254:17,17 | effect 49:1 125:5 | 185:18 |
| 128:17 129:17 | 148:5 158:16 | ear 260:12 | 158:10 181:20 | ELPC 203:15 |
| 130:1 204:7,9 | 160:14 270:21 | earlier 36:1,5 71:4 | 82:21 266:11 | LPC's 203:1 |
| 268:8 | 270:22,23,24 | 164:11 169: | 266:16 | embarked 176 |
| drafting 141:6 | duly 6:19 9:14 | 180:14 208:14 | effective 54:17 | emissions 57:1,12 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 58:2 195:20 | enjoy 103:11 | 207:8 208:13 | 71:11 77:13 | 136:15 167:9 |
| :---: | :---: | :---: | :---: | :---: |
| emitting 117:3 | 125:1 | 209:16,23 239:5 | 79:16 90:11 | 187:24 |
| employed 38:10 | enjoyed 124:13 | 239:9 245:18 | 91:5 92:3 | established 58:7 |
| 236:20 | ensure 111:8 | environmental | 122:23 131:17 | 79:12 85:8 |
| employee 236:23 | 114:13 131:5 | 2:7,12 3:23 4:6 | 131:22 134:23 | 119:20 181:24 |
| employees 171:21 | 134:12 136:10 | 4:15,18,19 8:4 | 143:11 160:12 | 207:7 |
| employers 145:2 | 137:8 141:5 | 14:10,14 15:1 | 166:7 171:15 | estimate 46:14 |
| enact 170:7 | 150:18 161:1 | 18:24 19:14 | 177:17 194:19 | et 28:21 |
| 171:18 172:10 | entail 256:17 | 21:7,17 23:19 | 195:22 197:17 | ethical 133:4 |
| encircling 164: | entails 256:18 | 25:16 26:14 | 197:24 200:8,18 | ethylene 117:3,3 |
| encountered | enter 9:16,20 | 28:8,9 33:3,6,12 | 201:7,10,11 | Europe 119:17 |
| 95:16 96:12 | 21:22 24:2 37:7 | 34:2 38:18 39:1 | 203:4 206:1 | evacuate 120:6 |
| 98:24 | 37:15 71:24 | 41:6 42:18 | 207:22 208:3,10 | evaluate 182:6 |
| encouraging | 72:18,20 77:1 | 44:22 48:24 | 208:19 209:20 | 208:11 209:21 |
| 107:8 163:15,20 | 197:9 221:17 | 67:17 68:9,23 | 236:23 237:3 | evaluated 87:24 |
| endanger 151:5 | 231:15,23 232:2 | 69:14,16,18 70:2 | 238:21 241:9 | 208:14 209:13 |
| ends 228:7 | 232:13,19 | 70:24 72:22 | 242:4,9 250:13 | evaluating 35:9 |
| energy 38:11 | entered 6:22 7:4 | 75:8 77:16 | 252:20 253:15 | 186:9 187:15 |
| 108:11 109:4 | 30:8 72:4 73:15 | 81:22,23 89:22 | 253:23 258:8 | evaluation 16:20 |
| 114:16,17,19 | 201:13 219:19 | 90:23 105:5 | 261:4,21 264:10 | 85:6 189:7 |
| 122:6,21 150:6 | 221:14 | 106:6,18 107:11 | 264:12,19 265:8 | evaluations 88:11 |
| 161:7,15 172:19 | enters 140:16 | 116:24 117:10 | 265:16 266:2,14 | 98:3,4 |
| 173:21 177:16 | entire 59:8 108:8 | 119:1 132:21 | 269:5 | Evans 140:4,4,5,8 |
| 177:19 178:12 | 111:4 172:22 | 134:10,15 136:1 | EPA's 64:21 | 140:8 |
| 178:14 | 249:14,15 | 136:9,16 138:15 | 117:10 167: | evening 179:8 |
| enforce 106:13 | entirely 211:5 | 142:12,14 | 223:2 | event 96:7 98:18 |
| enforceable 164:1 | entirety 244:19 | 146:12 148:1 | equal 102:7 | 181:13,17 182:3 |
| enforcing 150:14 | entities 118:20 | 159:23 162:3 | equally 196:16 | 230:22 231:3 |
| engage 262:11 | 166:21 238:7 | 175:6 194:4 | equipment 146:17 | events 95:8,9 |
| engaging 262:17 | 256:8 | 205:7,16 212:1 | 155:6 217:2 | 97:19 98:10 |
| engineer 39:14 | entitled 1:9 22: | 218:12 229:18 | era 114:15,19 | 138:19 |
| 65:22 193:14 | 23:12 100:6 | 236:21 238:4 | erosion 117:16 | eventually $120: 24$ |
| 207:16 213:10 | entombing 103: | 239:17 241:17 | escalation 117:16 | everybody 6:7 |
| engineering 98:3 | entry 73:1 | 241:21 245:23 | escaping 183:6,11 | 76:16 138:10 |
| 98:4 175:3 | environment | 257:12 259:14 | 183:13 | 155:18 |
| 187:11 193:15 | 107:24 108:1 | 260:7,23 261:10 | especially 116:10 | everyday 107:20 |
| 193:17 203:3 | 109:18 110:1,4 | 261:18 264:3 | 117:24 134:13 | 109:3 |
| 207:13 229:12 | 111:14 115:17 | 267:3 269:8,23 | 178:23 | everyone's 77:11 |
| engineers 88:11 | 122:19 125:9,11 | environmentalist | ESSENCE 2:5 | 103:16 110:19 |
| 88:24 186:10 | 131:5 136:18 | 102:16 | essential 119:3 | evidence 19:19 |
| 213:13 | 139:13 143:4,5 | environmentally | 137:1,11 | 20:18 21:22 |
| English 102:3 | 143:17 145:5 | 150:14 237:4 | essentially 163:9 | 24:3 25:19 |
| enhance 115:16 | 147:3 151:16 | EPA 5:3 7:14 14:6 | 203:22 | 152:21 185:22 |
| 136:17 | 158:24 160:6 | 33:14 36:12 | establish 58:6 | 232:14 240:4 |
| enhanced 227:3 | 162:9 163:9 | 39:24 40:7 65:9 | 85:3 90:9 | evolve 16:13 |

L.A. Court Reporters, L.L.C.

312-419-9292
exact 223:11,16
exacting 151:11 exactly 142:19 174:20
EXAMINATION 14:21 30:2 35:1 36:9 40:3 45:4 74:13 77:20 197:20 205:13 219:6 225:15 228:22 229:20 241:19 259:22 267:5
example 33:11,13 58:19 71:8 73:11 80:22 190:12,13 217:24 243:24 253:2
examples 30:14 71:17,17 188:17
excavation 22:20
23:14 214:16
exceed 90:9
146:15 151:14
159:1 160:3
245:2,8
exceeded 208:20
exceedence 244:5 245:13 246:9,18
exceedences 130:18,24 240:5 240:6
Excellent 26:12
exception 15:17 89:9 90:3
excess 161:10 217:17 226:12
excessively 207:21 excited 161:24 exclude 133:22 excluded 26:20 exclusive 30:14 excuse 19:6 20:7 20:11 56:13

195:24 203:11
208:6 214:17 216:17
excused 9:5 36:22
76:4 192:20
230:15 270:10
exempted 264:20
266:3
exempting 261:23
264:11
exhibit 7:5,8,9
9:17,20,23 10:3
10:4 19:14,24
20:1,3,16,21,23
21:6,16,24 22:1
22:17 23:17,19
24:2,5,6 25:16
25:17,22,23 37:8
37:11,12,16,19 37:24 38:1
73:15,17,21 74:1
77:2,5,6 81:24
82:1 180:19
197:10,13,14
201:8,13 220:4,7
221:15 231:24
232:2,6,8,9,19
232:21,24 233:3
233:6 271:2,2
exhibits 10:1
19:16 21:7
25:15 30:8
71:16 72:1,6,11
72:18 73:1,14 180:2 231:12,15
232:11,14,16 233:9,12,13
exist 18:19 129:7 221:7
existing 58:2 66:19 67:6 78:8 78:23 79:4,8 89:14 91:14 126:13 196:20
238:21 245:24

| exists 46:16 | exposure $107: 12$ |
| :--- | :---: |
| expect $128: 15$ | $110: 14113: 17$ |
| expected $240: 7$ | $154: 23167: 13$ |
| expedient $231: 3$ | express $104: 10$ |
| expedite $38: 20$ | $107: 3162: 24$ |
| experience $27: 4$ | expressed $57: 7$ |
| $27: 1431: 9,18$ | $143: 10212: 23$ |
| $41: 2393: 24$ | $240: 13$ |
| $109: 7118: 11$ | extended $82: 21$ |
| $141: 4152: 21$ | $83: 2,19$ |
| $160: 23239: 1$ | extends $83: 10$ |
| $250: 11256: 16$ | $133: 2$ |
| experiences $105: 9$ | extension $83: 15$ |
| $252: 7$ | $195: 3$ |
| expert $55: 258: 5$ | extensively $169: 15$ |
| $59: 1365: 15$ | extent $68: 4186: 9$ |
| $67: 474: 16$ | $189: 7245: 13$ |
| $136: 5,5137: 3$ | $262: 6$ |
| $239: 15251: 22$ | external $12: 21,22$ |
| $252: 5$ | $13: 230: 113$, | 252:5

expertise 47:11 54:22 55:1,2,4 60:7 61:4 85:12 236:24 237:1
expertly $251: 16$
experts 74:21 75:2 75:3 107:16 115:10 128:24 176:22
explain 32:7 48:1 182:9 188:15 214:4 216:8 221:4 243:22 253:20 255:16
explicit 161:17 207:23 208:1
explicitly 82:24 91:6 92:9,14 129:14 208:10 209:7,13,20 210:2 221:6
expose 155:18
exposed 109:11
141:12 156:10 167:6
exposure 107:12
110:14 113:17
154:23 167:13
express 104:10
107:3 162:24
expressed 57:7
143:10 212:23 240:13
extended 82:21
83:2,19
tends 83:10 extension 83:15 195:3
extensively 169:15
extent 68:4 186:9
189:7 245:13
external 12:21,22
13:4 30:11,13,15
32:2
extra 240:24
extraction 247:9
extreme 240:4
extremely 38:20 107:9 142:9,13 155:19
$\overline{\mathbf{F}}$

F 9:24 80:7
F.3d 263:13
face 120:15 121:6
Facebook 101:21
Facebook's 101:22
faceless 175:18
facilitate 187:20
facilities 29:9 33:1
41:23 51:3,13,14
52:13 117:2
160:10 173:23
238:10,14
254:10,22 256:3 264:20 266:4
facility $22: 16$

23:10 50:23 154:16 171:2 173:6
fact 16:24 27:20 29:10 49:10 88:4 107:19 114:21 118:19 148:5 248:19 249:10
factor 12:21,22
27:16,19 32:2,7
32:10,13,18,18
33:12 157:7
207:15
factors 10:22 13:4 13:19 27:5,15,17 28:5 30:11,13,15 31:10,22 56:4 57:10,12 97:9
fails $43: 10,19$
failure $33: 13$
242:10 261:8 265:23
fair 57:14,21 64:6 64:10 65:17 136:6 190:13 249:18
fairly $176: 14$ 239:6
faith 4:2 151:24 152:22,23 180:1 205:17 210:18
faith-based 112:15
faithfully 153:21
faiths 151:24
fall 30:17 133:1
falls 12:14 146:12 229:5
false 190:13,16
familiar 20:6,8
21:2 22:4,6,9
56:3 59:15,21
60:4 69:16
205:24 226:17
L.A. Court Reporters, L.L.C.

312-419-9292

| 237:24 251:23 | 151:14 165:16 | 93:3,9 131:15 | fire-eating 170:14 | 96:23 97:6 |
| :---: | :---: | :---: | :---: | :---: |
| families 110:4 | 166:8 168:9 | 167:10 227:24 | 170:16 | 126:8,15 144:9 |
| 122:20 146:18 | 169:11 184:16 | 228:8 | fired 156:2 | floor 3:3,8 203:23 |
| 152:9 | 184:23 194:5,8 | filled 113:1 | firm 193:15 | flow 44:6 85:4 |
| family 105:9 | 195:4 201:7,12 | 158:15 | 236:20,21 | 93:20 94:4 |
| 108:8 121:17 | 203:10 214:10 | filling 130: | first 6:6 15:14 | 95:20,23 96:1,15 |
| 138:23 148:9 | 238:19 261:9 | 173:10 | 45:7,13 48:5,9 | 98:2,15,19 |
| 150:4 151:15 | 265:24 | fills 116:14, 15,19 | 68:5 80:3 84:24 | 104:16,18 |
| 156:8 158:19 | feed 161:7 | 116:20 | 85:1 93:5,24 | 181:20 206:7 |
| 159:20 164:15 | feedback 267:22 | filter 48:20 61:1 | 94:1,2,11 100:18 | 211:12 |
| 165:6 168:22 | 268:1,9,12,14 | 211:8,11,19,21 | 102:10 122:8 | flowed 104:13 |
| family's 150:19 | feedstock 48:13 | filterable 210:10 | 123:10 124:2 | flowing 140:20 |
| fan 106:2 | 50:14 186:17 | 210:10 211:1 | 125:9 128:19 | flows 176:7,18,18 |
| fancy 163:2 | feel 109:10 203:2 | filters 60:16 | 145:22 149:2 | flue 49:10 |
| far 76:12 78:14 | fees 242:10 243:6 | final 27:8,17 28:7 | 175:11 185:7,21 | flue-gas 48:17,19 |
| 148:11 163:9 | 253:8 258:10 | 31:17 82:21 | 193:20 194:6 | 50:13 |
| 194:21 263:8 | feet 59:11 89:11 | 83:1 196:11 | 199:15 209:18 | fluids 207:4 |
| farmland 140:18 | 90:4 91:21 | 201:4,6 212:7 | 213:6 224:12 | fly $234: 5,7,23$ |
| father 147:24 | 129:5 194:10 | 235:19 247:7 | 227:19 230:17 | 235:23 |
| 148:2,9 | 226:13,14 227:5 | 264:24 | 233:13,15 | Flynn 2:2 178:24 |
| fathers 155:1 | 227:7 | finalized 128:8 | 235:22 238:8 | focus 11:4 86:2 |
| favor 51:22 | fellow 161:3 176:2 | finalizes 22:19 | 239:15 241:13 | focused 191:2 |
| 134:24 | 178:7 | 23:13 | 241:23 260:5,13 | focuses 10:22 |
| fbugel@gmail.c... | felt 109:9 | Finally 13:21 | 261:20 272:4 | follow 39:1 63:15 |
| 4:4 | female 124:19 | 25:15 105:4 | first-order 176:6 | 78:5,19 93:23 |
| fear 135:11 138:8 | fewer 12:16 | 106:21 131:16 | firsthand 145:20 | 177:12,21 |
| fears 104:12 | FGD 48:23 | 141:13 | fish 104:19 | 183:24 186:12 |
| feasible 31:7,20 | field 193:17 | financial 42:24 | fit 246:2 | 190:10 |
| 59:14 | fields 152:16 | 43:5,7,16 61:13 | five $10: 1238: 8$ | follow-up 7:12 |
| February 234:10 | fifth 3:14 234:4 | 62:1,6,7,12 | 98:10 114:22 | 29:16 30:4 |
| federal 10:15 | fight 156:21 | 158:22 159:2 | 117:1 129:5 | 32:22 34:19,22 |
| 15:21 16:11,21 | figure 11:10 13:17 | 168:5 | 131:22 154:15 | 36:18 43:24 |
| 17:11 18:6,21 | 81:7 196:15 | financially 171:17 | 185:10,14 | 47:12 75:22 |
| 28:2,22 29:4 | file 72:24 180:12 | find 19:21 20:19 | 193:12 236:18 | 80:6 89:4 |
| 33:15 35:21,24 | 221:17 271:2 | 33:2 223:24 | 240:22 255:9,24 | 192:15 205:5 |
| 66:16 67:10 | filed 19:14,24 | 224:6 254:12 | fix 121:6 173:19 | 211:24 219:2,5 |
| 71:9,10,14 73:3 | 20:17 21:7,16 | 258:6 | 173:20 | 225:10,11 |
| 73:9 78:15 | 23:19 25:17 | finding 21:5 | fixed 59:15,21 | 228:19 229:16 |
| 79:13,18,19 | 72:13,21 180:9 | fine 45:3 51:24 | fixing 162:24 | 230:11 255:16 |
| 80:19 81:1 | 232:14,23 233:3 | 60:5 224:5 | flip 260:12 | 256:11 257:4 |
| 86:18 115:2 | 233:12 235:18 | 231:5 232:20 | flood 97:18 98:8,9 | 259:19 266:24 |
| 122:23 129:18 | files 233:14 | finger 223:21 | 98:10,16 129:3 | followed 80:14 |
| 135:12,14 | fill 71:14 81:1 | finish 76:13 | 163:5 167:2,4 | 90:11 106:13 |
| 143:21,22 | 89:11,16 90:4 | 265:21 | 181:13,17 182:3 | 239:18 |
| 145:17 147:8 | 91:22 92:1,10,15 | fire 120:4 156:20 | flooding 96:16,22 | following 45:13 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 66:3 67:9 91:15 | 122:5 125:7 | 147:9 184:5 | 268:18,20 | gathered 104:10 |
| :---: | :---: | :---: | :---: | :---: |
| 147:4 179:21 | 197:7 239:14 | 186:14 237:19 | Furthermore | Gen 42:23 48:22 |
| 184:4 199:15 | fossil 124:23 | 263:16 | 104:19 239:6 | 50:12,17 53:3 |
| 203:20 229:19 | 125:4 177:16 | froze 88:13 | future 114:16 | 54:15 66:10,14 |
| 233:24 239:12 | foul 48:20 | fuel-based 124:23 | 125:7 133:3 | 198:18 |
| 258:22 270:19 | found 11:2 24:1 | 177:16 | 135:7 160:6 | Gen's 52:13 53:23 |
| follows 100:21 | 29:7 108:15 | fuels 117:5 125: | 178:14,14 | 67:6 69:13 |
| followup 40:8 | 29:9 147:5 | fugitive 54:17 | G | general 2:3 3:7,12 |
| food 173:15 | 150:9 170:13 | 55:3,6,10,12, | G | 8:13 49:11, 13,16 |
| foot 206:11 226:6 | 171:8 243:19 | 56:10,16,24 | G 4:16 47: | 49:17 50:2 51:7 |
| 227:9 | foundation 94:8 | 57:11 58:2 60:1 | 257:8 | 51:7 62:5 67:3 |
| footnote 23:11 | founder 102:18 | 60:10,22 61:1 | gain 159:2 | 70:12,13,17,18 |
| footnoted 184:16 | four 31:11 66:5 | 74:16 195:20 | Gale 2:20 7:18,20 | 71:16 80:13 |
| footprint 59:8 | 98:10 173:9 | fulfilling 79:23 | 29:19,21 37:1,6 | 81:18 87:20 |
| 150:10 217:10 | 185:10,14 | full 18:2 46:24 | 37:9,17 47:23 | 90:7,12 95:19 |
| forced 137:3 | fourteenth 235 | 68:17 78:12 | 49:5,8 50:8 51 | 97:17 217:16 |
| 7:15 | 235:11 | 108:6 110:14 | 56:14 59:17 | General's 34:11 |
| forefront 142:12 | fourth 234:2 | 130:2 171:21 | 70:8 71:21,22 | 75:16 192:9 |
| foregoing 272:8 | frame 83:15 | 186:5,8 224:12 | 72:3,16,24 73:14 | 218:20 259:17 |
| foreman 155:7 | frames 83:5 | 240:8 256:6 | 76:15,24 77:3,10 | 270:2 |
| 156:2 | framework 133 | fully 83:17 173:2 | 80:12 81:17 | generality 50:22 |
| foremen 156:17 | France 119:18 | 220:13 227:24 | 91:9 92:20 | 52:1 |
| foresight 239:20 | frank 43:4 80:7 | function 51:16,17 | 94:18 97:3 | generalize 228:10 |
| forever 108:24 | 188:9 | 204:5,17 | 187:1 192:23 | generally $32: 11$ |
| forgive 55:10 | frankly 16 | functional 45:18 | 197:9,11 210: | 44:5 46:24 |
| fork 144:8 164:2 | 165:18 216:19 | 45:19 | 210:21 213:6 | 51:14,20 54:15 |
| form 66:19 120:4 | 217:21 | functiona | 220:11,19,21 | 55:2,4,5 56:22 |
| 155:15 161:9 | FRANZE | 204:3 | 221:16,19 | 59:7 64:1 67:24 |
| 86:23 187:4,8 | 2:20 | functionin | 223:22 224:3,8 | 80:14 94:3,12 |
| 194:15 | Frederic 119:17 | 237:24 | 259:4,6 269:15 | 226:22 |
| format 178:21 | Frederick 119:10 | functions | Gale's 50:7 81:4 | generate 86 |
| formation 227:20 | free 44:5 222:12 | fundraiser 163:3 | Gamale 140:11 | generated 49:13 |
| formed 133:13 | frequent 35:17 | funny 208:1 | Gandhi 147:6 | 52:10 53:20,22 |
| former 144:23 | 96:3 97:19 | further 11:15 13:3 | gap 80:24 | 78:13 85:20 |
| 163:1 235:16 | 117:17 129:19 | 35:1 44:19 65:2 | gaps 71:9,1 | 133:9 |
| forming 97:2,9 | 166:9 | 74:3 75:6,24 | 113:10 130:2 | generates 17:19 |
| forms 169:22 | frequently 35 | 86:7 92:2 93:1 | garden 150:7 | generating 108:10 |
| forth 150:13 | fresh 111:3 | 104:14 129:24 | garnered 67:22 | 159:21 238:9 |
| 245:4,9 | 144:15 160:16 | 130:20,22 146:1 | 70:3 | Generation 2:23 |
| fortunate 160:22 | friend 158:13 | 205:4 218:2 | Gary 5:6 230:17 | 7:18 29:19 |
| 226:20 | friends 105:10 | 219:6 225:7,10 | 230:20 231:20 | 37:23 38:12,17 |
| Fortune 138:2 | 138:23 158:13 | 228:22 229:15 | 232:3,5,7,10 | 38:22,24 40:18 |
| forward 27:2,12 | 164:15 165:6 | 229:20 230:8,11 | 235:20 236:19 | 45:16 48:6,9 |
| 39:20 51:18 | front 80:4 82:16 | 233:8 246:23 | 251:16 | 49:21 51:3 52:6 |
| 71:18 73:5 | 131:2 146:9 | 266:18 267:5 | gas 49:10 | 53:15 61:12 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 67:1 159:24 | 252:2 272:7,10 | 236:17 241:12 | 255:5 260:4,19 | grandparent |
| :---: | :---: | :---: | :---: | :---: |
| 193:18 205:18 | gives 102:7 213:3 | 249:1 255:5 | 260:21,23 262:2 | 106:10 |
| 216:2 259:4 | giving 39:19 | 259:21 260:21 | 262:7 263:1 | grandparents |
| 269:13 | 107:2 140:1 | 270:12 | good 6:1 9:10,11 | 108:18 |
| generation's | 149:24 213:7 | goal 163:15 | 14:17 30:1,6,7 | grandsons 103:7 |
| 37:18 39:7 | glacial 226:23 | God 153:1 | 36:11 40:5 45:6 | 103:20 |
| 49:16,23 69:10 | glaciers 226:21 | God's 134:12 | 46:14 57:8 58:8 | GRANHOLM |
| 78:9 80:20 | glad 128:2 224:10 | 152:24 | 82:3,11 85:4 | 2:15 |
| 220:22 | Glen 140:14 | Godfrey 166:3 | 95:20 98:14 | grateful 124:11 |
| Generation-spe... | global 106:6 | goes 50:16 51:15 | 100:2 102:12 | 160:3 |
| 51:9 | 236:21 | 54:18 76:18 | 104:2 106:2 | gravel 216:17,18 |
| generations | gloves 156:19 | 80:24 94:6 97:8 | 110:23 113:18 | 217:12,14 |
| 109:19 133:3 | Gnat 5:5 37:19 | 164:12 213:9 | 116:2 118:6 | gravity 44:6 |
| 143:5 154:23 | 39:7,9 48:11 | 222:19 224:16 | 125:3 130:13 | gravity-drained |
| 156:9 157:1,13 | 50:14 66:24 | 225:2 256:7 | 134:12 135:16 | 44:15 |
| 160:7 178:15 | 67:4 76:7,11,21 | going 6:16 20:21 | 150:14 156:13 | great 6:15 14:20 |
| Geneva 168:20 | 77:8,10,19,22 | 31:11 46:8 | 157:2 170:18 | 15:8 20:15,22 |
| gentlemen 119:16 | 78:2 81:13,23 | 49:22 51:18 | 177:13 180:23 | 21:10,20 24:13 |
| geology 85:18 | 91:12 94:22 | 53:2 54:18 57:6 | 181:23 182:1 | 37:2 47:14,15 |
| geomembrane | 99:4,5 180:1,4 | 57:9,24 60:22 | 187:14 193:13 | 77:12 106:12 |
| 194:15 196:20 | 180:24 181:8 | 61:6,21 65:11 | 197:22 226:22 | 108:5 110:8 |
| 201:19 202:2 | 187:6 191:19,2 | 67:15,20,23 69:7 | 230:18 259:24 | 111:24 125:3,10 |
| geometric 194:2 | 192:16,17 | 71:20,21 76:6 | 260:3 271:5 | 125:14 133:5,7 |
| geotechnical | Gnat's 49:8,10 | 80:5 82:13 | good-paying | 133:18 136:23 |
| 193:17 | 77:1 81:22 | 83:24 84:10 | 112:20,23 | 158:1 174:14 |
| Gesell 123:10,11 | 179:18 | 85:13 86:1 | 113:18 | 181:3 205:11 |
| 123:11 | go 6:4 25:1 31:10 | 87:19 88:9 | govern 93:9 | 210:21 |
| getting 49:22 | 43:14 49:7 50:5 | 93:1,2 109:23 | government 115:2 | great-nephews |
| 101:20 141:7 | 52:18 57:4 | 111:6 148:19 | 121:22,23 | 148:11 |
| 226:3 | 64:14 68:12 | 152:19 155:13 | 132:18 133:19 | great-nieces |
| gigantic 59:7,8 | 70:21 71:2,18 | 155:16,17 156:6 | 158:23 159:3 | 148:10 |
| giraffe 257:8 | 73:5 83:7 86:4 | 156:16,17,20 | 63:16,22 | greater 12:8 |
| girl 46:10 176:2,2 | 87:4,8,11 96:2 | 157:7 165:13 | 171:21 | 128:19 143:17 |
| 177:22 198:13 | 98:22 106:23 | 169:12 176:16 | governor 146:5 | 194:12 |
| girls 176:21 | 113:9 119:15,20 | 185:21,22 | governor's 114:18 | greatly 130:6 |
| give 14:20 21:4 | 120:10 124:18 | 199:20 200:4 | Grace 132:2,2 | greed 148:21 |
| 52:2 102:11 | 132:9 139:8 | 203:5,15 204:2 | grand 2:8 224:1 | green 102:19 |
| 156:3 220:1 | 157:23 179:14 | 205:22 207:9,17 | grandchildren | 117:10 119:19 |
| 221:12,21 252: | 186:4 189:19 | 207:18 211:6 | 103:20 121:18 | grew 140:15 |
| 252:8 253:2 | 191:18 198:9 | 214:1 216:1,20 | 138:24 155:3 | Griffith 159:14,14 |
| 263:7,14 | 200:4,7 203:18 | 217:3 221:23 | 170:5,6 173:17 | 162:12,12 |
| given 11:21 65:5 | 212:2 214:18 | 227:15 230:7 | granddaughters | ground 93:4 |
| 111:3 115:2 | 221:23 222:19 | 240:21 241:12 | 106:4 | 123:15 150:22 |
| 128:12 170:14 | 224:6 225:13 | 242:12,18 | grandfather | 158:15 161:11 |
| 179:3 195:19 | 228:21 233:11 | 244:19 247:23 | 124:16 | 171:5 176:17 |

L.A. Court Reporters, L.L.C.

312-419-9292

| ground-troop | 246:1,10,18 | 130:4 | happened 54:6 | 114:2 115:11 |
| :---: | :---: | :---: | :---: | :---: |
| 203:4 | 247:8,8 | Hagen 240:3,9,14 | 168:4 | 119:4 121:24 |
| ground-trooped | group 3:23 8:4 | hailed 158:13 | happening 51:19 | 126:3 127:1 |
| 203:5 | 12:17 14:14 | half 186:16 | 171:13 | 134:16 135:16 |
| ground-trooping | 18:24 21:17 | 217:18 | happens 95:24 | 145:8,10,13,16 |
| 208:15 | 28:8 34:2 41:6 | half-gallon-per-... | 98:15 150:24 | 147:7 149:10 |
| grounded 156:6 | 44:22 75:8 | 206:10 | 171:23 | 151:5 158:19,19 |
| groundwater 33:4 | 116:5,6 128:5 | half-mile 217:19 | happy 50:9 82:14 | 158:20 159:1 |
| 33:7,14 39:11 | 166:17 218:12 | Hammons 4:15 | 170:16 242:15 | 163:14 166:10 |
| 66:10,12,15 67:6 | 259:14 261:17 | 205:9,11,14,15 | hard 38:17 150:4 | 174:9 175:6,7 |
| 67:8 78:8 79:2,9 | 269:23 | 208:7,9 210:17 | 151:5 162:2 | 207:8 208:13 |
| 79:10,11 81:9 | Group's 15:1 21:7 | 210:24 212:21 | 177:24 183:3 | 209:16,23 239:4 |
| 82:20 83:1 84:3 | 23:19 25:17 | 213:17,18,24 | 229:4,7 | 239:9 245:17 |
| 84:11 85:3,11,12 | 26:15 28:9 | 214:3 217:15 | hard-working | healthcare 138:15 |
| 86:22 88:10,22 | 42:18 48:24 | 218:2 229:17,18 | 136:4 | healthy 103:11 |
| 89:10,15 90:3,6 | 72:22 81:22,23 | 229:21 230:8 | hardened 161:4 | 108:20 118:14 |
| 90:7 91:7,21 | 212:1 260:7,23 | 241:20,21 | hardest 109:10 | 122:20 150:14 |
| 92:3,9,10,16,22 | 261:10 | 242:24 243:10 | HARDIN 2:14 | 151:16 |
| 92:23 94:4 95:7 | groups 12:2 14:10 | 243:11 248:24 | harm 128:8 | hear 6:10,13,13 |
| 95:9,13,16 96:3 | 19:14 71:1 | 249:4,7,22 | harmful 105:8 | 14:18 45:7 |
| 96:6,11,15,20 | 77:17 102:17 | 250:21 251:1 | 153:11 | 77:22 78:2 |
| 104:13,18 | 114:18 143:3 | 252:11,12,13 | Hasbrook 141:22 | 112:9 127:22 |
| 108:14 111:13 | 159:23 205:7 | 258:14 267:2,3,6 | 141:23 | 132:8 134:4 |
| 115:4,7 116:16 | 241:17 269:9 | 268:18 | hatch 10:21 | 140:5 147:17,18 |
| 126:14,17,23 | Grove 3:20 158:3 | Hammons' | haul 60:2 217:4 | 154:4,10 157:24 |
| 128:23 129:4,8 | grow 173:15 | 250:20 | hauling 103:16 | 159:18 162:21 |
| 129:19,21,22 | grown-up 124:12 | hand-pulled 86:2 | HAY 3:13 | 168:16 193:1 |
| 133:13,15 137:7 | growth 174:8 | handful 185:10,11 | head 58:20 63:20 | 205:9 220:5 |
| 141:6,8 142:7 | Gruber 124:8,9 | 188:20 | 64:18 65:13 | 241:5 257:21 |
| 148:24 161:6 | guarantee 142:21 | handle 216:20 | 200:24 201:1 | 259:24 260:1,2 |
| 165:1,9 166:9 | guess 32:5 48:1 | 217:7 | 202:12 203:24 | heard 57:16 58:10 |
| 167:7 180:6 | 51:10 58:3 | handled 71:9,13 | 206:6,11,14,24 | 76:15 97:14 |
| 181:12,18,20,24 | 155:2 156:3 | 231:6 | 207:3 216:21 | 107:15 123:22 |
| 181:24 182:2,4 | 170:13 190:12 | handling 14:13 | 222:14,17 | 132:11 171:10 |
| 182:11,22 183:1 | guessing 45:24 | 48:14 50:15 | 225:24 226:4,6 | 174:6 183:12 |
| 183:5,10,13,18 | guidance 189:17 | 167:13 186:18 | 226:15 227:16 | 187:2 203:8 |
| 183:20,21 | 221:12 | 217:6 | headquartered | 257:19 |
| 187:16,24 188:6 | guidelines 137:8 | hands 178:6 | 145:19 | hearing 1:9 2:2 |
| 188:12 190:9 | gutted 142:15 | hang 72:3 220:19 | heads 138:17 | 6:1,2,12,15,20 |
| 191:9 196:23 | gutting 143:12 | happen 59:13 | 227:9 | 7:2,7,11,17,21 |
| 235:7 238:4,23 | guys 172:10 | 124:19 135:7 | health 103:2,5,6,6 | 7:24 8:3,8,12,18 |
| 239:20,21 240:5 |  | 142:24 170:9 | 103:9,16,19 | 8:23 9:6,10,12 |
| 240:11,11,15,17 | H | 182:7 185:21 | 105:21 106:9 | 9:15,19 10:2,7 |
| 244:5,22 245:1,3 | H 82:23,23 83:4 | 189:22 228:3 | 107:14 108:2 | 10:11 14:3,9,15 |
| 245:7,9,11,15,20 | habitats 128:11 | 229:4 | 113:15,17,19 | 14:19 19:18,20 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 19:23 20:19,20 | 168:14,17 | 109:16 154:19 | higher 13:13 | horrible 171:7 |
| :---: | :---: | :---: | :---: | :---: |
| 21:21,23 24:1,4 | 170:20,24 | heavier 207:19 | 135:13 227:10 | horrified 142:3 |
| 25:6,18,21 29:18 | 172:12 174:11 | heavily 213:21 | highest 129:4 | Horton 1:9 2:2 |
| 29:22 30:1 34:1 | 178:17,19 179:7 | heavy 103:14 | highly 107:16,21 | 6:1,2,12,15,20 |
| 34:6,10,15,19,24 | 179:12,16,23 | 107:12 108:13 | 201:19 | 7:2,7,11,17,21 |
| 36:7,17,19,23 | 180:3,15,24 | height $129: 3$ | hike 124:24 | 7:24 8:3,8,12,18 |
| 37:2,6,10,14,21 | 181:3 191:17,21 | held 1:8 118:12 | hiked 140:17 | 8:23 9:6,10,12 |
| 38:3,7 39:22 | 191:24 192:4,12 | 121:8 143:9 | hiking 124:13 | 9:15,19 10:2,11 |
| 42:1 44:21 45:2 | 192:15,17,21 | 172:3 261:4,21 | Himegarner | 14:3,9,15,19 |
| 45:10 49:5,7 | 193:1,4,7,11 | 264:9 265:8,16 | 162:14,14 | 19:20,23 20:20 |
| 50:5,18,21 51:10 | 197:8,12,16 | Helen 123:10,11 | hindsight 204:13 | 21:23 24:4 25:6 |
| 51:22 63:5 70:4 | 205:6,10 208:6 | Hello 77:22 104:2 | historic 89:16 | 25:7,21 29:18,22 |
| 70:11,19 71:20 | 212:21 213:4,7 | 105:17 114:5 | 117:17 130:21 | 30:1 34:1,6,10 |
| 71:23 72:4,14,17 | 213:17,18,24 | 121:12 124:9 | 131:14 | 34:15,19,24 36:7 |
| 73:13,18,21 74:5 | 218:3,8,11,16,20 | 130:11 134:7 | historically | 36:17,23 37:2,6 |
| 74:9,12 75:7,12 | 218:23 219:2,18 | 135:22 140:5 | 182:17 | 37:10,14,21 38:3 |
| 75:16,19,22 76:1 | 220:3,7 221:11 | 149:24 159:17 | history 124:20 | 38:7 39:22 42:1 |
| 76:3,5,20,24 | 221:16,20 225:9 | 160:20 162:20 | hold 77:24 199:20 | 42:2 44:21 45:2 |
| 77:4,8,12,16 | 225:13 228:15 | 164:7 166:2 | 212:10 214:16 | 49:7 50:5,18,19 |
| 80:17 81:3,16,17 | 228:21 229:15 | 179:23 225:14 | 214:17,20,23,24 | 51:22 63:5,5 |
| 81:20 82:4,10 | 229:17 230:10 | help 60:21 81:7 | 215:9,12,23,24 | 70:19 71:20,23 |
| 93:5,6,11,12,15 | 230:16,18,21 | 98:1,14 120:16 | 230:4 262:13 | 72:14,17 73:13 |
| 97:11 99:2 | 231:5,9,14,18,22 | helped 108:21 | holding 215:3 | 73:18,21 74:5,9 |
| 100:2,4,5 103:21 | 232:6,15,18,22 | helpful 33:22 | 229:24 261:19 | 74:12 75:7,12,16 |
| 105:13 107:6 | 233:2,11 236:12 | helps 98:5,7 | 262:18,21 263:8 | 75:19,22 76:1,5 |
| 110:17,24 112:1 | 236:17 237:13 | Hennepin 108:11 | 263:12 265:2 | 76:20,24 77:4,8 |
| 112:11 114:3 | 240:1,20 241:7 | 146:23 | holds 168:3 | 77:12,16 81:3,16 |
| 115:24 118:4 | 241:12 242:22 | HEPLERBRO... | hollow 114:1 | 81:20 82:4,10 |
| 119:9 121:10 | 243:5 248:24 | 3:19 | holy 152:23,24 | 93:12,15 97:11 |
| 123:5 124:5,7,11 | 249:22 250:3,19 | hereunto 272:12 | home 104:5 106:1 | 99:2,3 100:2,4 |
| 125:12,15 127:3 | 251:1,11,13,20 | hey 156:3 | 109:23 119:17 | 103:21 105:13 |
| 127:20,24 130:7 | 252:1 258:16,24 | Hi 34:21 107:7 | 125:2 134:19 | 107:6 110:17 |
| 130:12 132:1,8 | 259:7,10,13,17 | 123:11 125:17 | 140:21 174:20 | 112:1,11 114:3 |
| 132:12 133:24 | 259:21 262:12 | 127:5 134:4 | homeowner 177:2 | 115:24 118:4 |
| 134:5 135:18 | 263:3 265:11 | 137:20 154:9 | honestly 31:24 | 119:9 121:10 |
| 137:18 140:3,6 | 266:20,24 267:2 | 164:7 170:22 | 71:15 93:10 | 123:5 124:7 |
| 141:17 143:7 | 267:8 268:20,22 | hide 121:6 | 107:18,23 | 125:15 127:3,20 |
| 144:19 147:12 | 269:8,11,16,19 | hiding 169:23 | 182:12 | 127:24 130:7,12 |
| 147:19 149:20 | 269:22 270:2,5,8 | high 117:17 | hope 32:21 108:22 | 132:1,8,12 |
| 151:18 153:24 | 270:11,16 271:6 | 166:22 | 109:6 120:2 | 133:24 134:5 |
| 154:10 157:18 | 272:8,11 | high-capacity | 138:20 139:1 | 135:18 137:18 |
| 157:23 159:12 | hearings 100:17 | 196:3 | 153:21 160:8 | 140:3,6 141:17 |
| 159:18 160:18 | 100:18 175:2 | high-level 11:2 | hopefully 107:5 | 143:7 144:19 |
| 162:11,21 164:5 | 252:3 | high-sulfur 53:15 | 228:5 | 147:12,19 |
| 165:24 168:11 | heart 102:17 | 53:21 54:8 | horrendous 142:6 | 149:20 151:18 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 153:24 154:10 | hub 134:18 | 185:19 190:7 | Illinois 1:1,10,12 | 154:12 158:21 |
| :---: | :---: | :---: | :---: | :---: |
| 157:18,23 | huge 58:16 | hypothetically | 1:14 2:7,9,12,16 | 159:22 160:8,12 |
| 159:12,18 | human 106:8 | 211:11 | 2:21 3:3,9,15,21 | 160:22 161:13 |
| 160:18 162:11 | 119:3 126:2 |  | 3:23 4:3,7,12 | 162:6 163:1,6,17 |
| 162:21 164:5 | 134:15 141:1 | $\frac{\text { I }}{\text { I }}$ | 5:3 7:14 8:4,13 | 163:21 164:9,10 |
| 165:24 168:11 | 207:8 208:13 | IBEW 154:21 | 14:6 16:5,9 | 164:13,17 166:4 |
| 168:14,17 | 209:16,23 239:4 | 155:12 157:4 | 17:15 18:11 | 166:7,11 168:8 |
| 170:20,24 | 239:9 245:17 | ice-skated 140:18 | 34:2 36:12 | 168:21 169:18 |
| 172:12 174:11 | 246:2 | idea 46:5,7 169:2 | 38:18,19 39:24 | 170:10,17 |
| 178:17 179:7,12 | humanity 153:1 | 169:5 187:14 | 40:7 43:2,8,17 | 171:13 172:18 |
| 179:16,23,24 | humans 119:20 | identical 148:5 | 51:4,19 52:7,14 | 172:23 173:2 |
| 180:15,24 181:3 | 141:2 175:18 | identification | 53:4,16 61:15,18 | 174:17 175:16 |
| 191:17,21,24 | 178:6 | 7:10 10:6 13:22 | 62:2,13,17,19,23 | 177:17,18 178:1 |
| 192:4,12,15,21 | hundred 154:17 | 15:9 16:7 20:4 | 63:13 65:9 | 178:7 193:24 |
| 193:1,4,7,11 | 155:22 | 20:24 22:2 24:7 | 70:13 71:11 | 194:23 196:7 |
| 197:8,12,16 | hundred-foot | 25:24 37:13 | 75:7 77:13 | 197:17,24 206:1 |
| 205:6,10 208:6,7 | 227:2 | 38:2 74:2 77:7 | 80:15 81:1 | 209:1 212:17 |
| 213:17,24 214:1 | hurricane 163:5 | 82:2 197:15 | 90:11 91:5 92:3 | 214:12 218:11 |
| 218:3,8,11,16,20 | hurrying 255:4 | 232:12 233:7 | 100:3,7 102:15 | 223:2 226:11,18 |
| 218:23 219:2 | hurt 122:14 | identified 27:22 | 102:17,22 103:4 | 226:20 235:24 |
| 220:3,7 221:16 | hurting 113:19 | 27:24 70:16 | 105:18 106:7 | 236:5,23 237:3 |
| 221:20 225:9,13 | hurts 102:22 | 78:6 222:8 | 107:4,17 108:9 | 237:16 238:15 |
| 228:15,21 | husband 172:17 | 240:9 244:18 | 111:13 112:14 | 238:21 239:18 |
| 229:15 230:10 | Husting 164:6,7,8 | 254:3 | 114:6,8,10,23 | 239:19 241:9 |
| 230:16 231:5,9 | Hutsonville | identify $28: 15$ | 115:3,5,9,15,19 | 242:4,9 245:24 |
| 231:14,18,22 | 233:16,19,23 | 60:17 61:1 | 116:4,7,16 117:2 | 250:13,15 |
| 232:6,18,22 | 234:1,3,15,20 | 64:22 69:12 | 118:7 121:16,21 | 252:20 253:4,15 |
| 233:2,11 236:12 | 235:5,12 238:10 | 98:5 117:11 | 122:4,4 123:4,12 | 253:21,23 |
| 236:17 237:13 | 238:23 242:5,10 | 130:20 167:19 | 124:1,10,10,14 | 254:23 257:11 |
| 240:1,20,21 | 243:2 244:23 | 231:19 233:9 | 124:23 125:3,7 | 257:15,16 258:8 |
| 241:7,12 242:22 | 245:11,21 | 243:23 244:17 | 125:10 126:20 | 259:13 269:5,22 |
| 243:5 248:24 | hybrid 167:16 | 247:12 | 127:6 128:3,7 | 272:1 |
| 249:1 250:3,19 | hydraulic 63:20 | identifying 74:22 | 129:8,23 131:16 | Illinois' 125:13 |
| 251:11 252:1 | 64:18 65:13 | IEP 159:24 | 131:20 132:21 | 165:2 |
| 258:16,24 259:1 | 194:12 201:17 | IEPA 71:4 79:17 | 133:19 134:15 | Illinoisan 105:24 |
| 259:7,10,13,17 | 203:23 206:6,24 | 93:5 128:3 | 134:23 135:13 | 106:10 107:11 |
| 259:21 263:3,4 | 211:15 222:13 | 129:17 233:18 | 136:17 137:14 | Illinoisans 103:3 |
| 265:11 266:20 | 222:17 | 234:2,6,11 | 137:22 140:12 | 148:13 161:4 |
| 266:24 268:20 | hydrogeologic | 238:17 257:8 | 140:14,15 | illnesses 118:15 |
| 269:8,11,16,19 | 85:1,6,15 86:20 | IEPA's 257:5 | 142:11 143:20 | 146:2 |
| 269:22 270:2,5,8 | 87:13,21 | ii 66:4 | 144:4,12,17 | illustrate 11:17 |
| 270:11,16 271:6 | hydrogeologist | ILCS 17:17 | 146:4,7,18 | illustrated 13:17 |
| hour 1:15 | 39:9 | 245:22 | 147:22 148:8,9 | illustrates 12:11 |
| house 47:5 114:11 | hydrologic 133:12 | Ill 1:6 245:4,10 | 148:12,12,15 | 13:7 |
| 148:8 205:1 | hypothetical | 246:10,19 | 151:22 152:16 | imagine 158:6 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 3:21 216:13 | 153:15 | impoundments | inaudible 114:11 | increasing 190:21 |
| :---: | :---: | :---: | :---: | :---: |
| imagining 227:17 | imploring 166:18 | 1:5 11:12,16,17 | 115:20 116:16 | incredible 115:1 |
| immediate 110:3 | importance 136:7 | 12:2 15:18,18,21 | 119:21,24 120:1 | incremental 59:3 |
| immediately | 136:23 | 16:2 24:14 25:3 | 120:14,18,23 | cur 254:5 |
| 233:24 | important 27:19 | 25:11 42:5,6 | 121:7 143:9 | incurred 255:10 |
| immigrant 137:24 | 32:10,12 71:7 | 44:17 52:13,18 | 157:9 160:12,14 | 255:22 256:24 |
| imminent 156:4 | 85:22 106:3 | 52:23 53:23 | 163:12 | Independent |
| 156:23 | 77:9 123:3 | 54:5 58:19,22 | inception 112:18 | 168:5 |
| impact 11:14 43:2 | 124:21 125:6 | 64:23 66:11 | include 55:6 | Indiana 22:5,11 |
| 60:1 61:15,18 | 139:21 142:13 | 69:13 78:10 | 113:9 116:18 | indicate 27:18 |
| 62:1,13,17,18,23 | 142:17 158:6 | 79:12 86:16,18 | 117:11 129:2 | 66:9 200:19 |
| 69:6,7 104:18 | 166:5,6 203:3 | 90:14,16 91:11 | 151:7 200:14 | indicated 61:19 |
| 116:11 137:6 | importantly 170:3 | 92:5 100:9 | 208:17,22 | 188:10 204:10 |
| 160:6 174:22 | 203:2 | 106:15 111:8,18 | 268:14 | indicates 23:9 |
| 182:2,6 217:9 | importin | 115:6 116:18,21 | included 50:10 | 189:17 250:14 |
| impacted 92:4 | imports 163:18 | 117:23 126:11 | 84:4 111:9 | indication 33:11 |
| 96:1 109:21 | impossible 42:11 | 131:7,11,19 | 116:20 167:1 | indicative 71:8 |
| 110:10 118:9 | 42:13 247:18 | 136:21 149:12 | 202:4 203:1 | 73:4 201:1 |
| 126:15 130:14 | impoundment | 166:24 167:1,11 | 219:11 220:18 | 223:3 |
| 131:19 167:8 | 12:3 16:9 17:18 | 172:21 174:21 | 21:2 237:5 | indicator 60:17 |
| 173:13 174:4 | 41:16 44:10,13 | 193:24 194:19 | 247:7 266:6 | 61:2 226:2 |
| 237:4 | 49:2,19 53:9 | 194:21 195:6 | includes 122:8 | indirectly 38:12 |
| impacts 13:18 | 58:13,16,17 59 | 196:6,10 201:24 | including 16:9 | individual 35:22 |
| 89:15 90:7,8,14 | 65:3,6 90:18 | 202:2 203:7 | 108:1 113:22 | 173:2 175:16 |
| 105:5,12 107:12 | 96:9 185:3,4,6 | 208:21 209:8 | 117:15 122:13 | 182:13 |
| 107:13 108:2 | 185:20 188:3,14 | 210:3 214:14 | 126:10 129:10 | individuals |
| 117:7,12,24 | 193:22 194:3,10 | 217:1 224:13 | 135:8 136:1 | 100:24 101:1,10 |
| 128:18 136:13 | 196:16,19 | 226:12,17,24 | 145:6 149:11 | 108:4 110:7 |
| 177:15 | 200:12 201:16 | 238:13,14,18 | 159:6 166:7 | industrial 132:22 |
| imperative 106:12 | 201:22 202:8,10 | 239:22,23 | 177:8 261:5 | 140:21 |
| impermeable | 202:17,22 | 240:15 254:10 | 265:9,17 | industries 56:12 |
| 201:20 | 203:23 204:1,1,2 | 254:22 261:23 | inclusion 208: | 6:24 57:2 |
| implement 86:5 | 204:8 205:2 | 264:11,20 266:3 | inclusive 73:22 | 60:23 141:14 |
| 115:14 | 208:12,18 | impractical 217:7 | incorporate 268:1 | 143:14 |
| implementation | 209:15,22 212:9 | impressive 177:24 | 268:12 | industry 11:7 |
| 199:16 237:9,15 | 212:11,24 214:5 | improper 132:23 | incorporated | 64:1,9 65:4 71:5 |
| 254:8 | 214:7,11,14,21 | improperly | 105:5 | 108:13 122:10 |
| implemen | 217:5,14 222:13 | 158:11 175:5 | increase 189:4 | 22:10 129:21 |
| 111:6 | 222:15,22 | improve 119:19 | 190:23 222:14 | 142:22 145:5 |
| implemen | 225:20,22 | inactive 246:8,17 | increased 42:24 | 177:19 199:10 |
| 128:4 | 226:10 227:18 | 246:21 247 | 61:13 113:12 | industry-friendly |
| implications | 227:19,21,24 | 261:23,23 | 118:24 126:8 | 143:18 |
| 166:22 | 228:8 229:22 | 264:11,12,20, | 74:8 217: | industry- |
| implore 115:19 | 246:9,17,22 | 266:3,4 | 222:16 | 166:14 |
| 150:17 152:2 | 247:2 | inadequate 135:9 | increases 190:20 | ineffective 103:13 |

L.A. Court Reporters, L.L.C.

312-419-9292
infeasible 41:12
infer 83:22
infiltrating 161:6
infiltration
201:22 222:14
influence 11:23
13:3 30:11
influenced 19:8
influencing 10:23
influential 158:17
inform 152:24
information 10:16
11:9 18:9 23:15
70:10 78:13,18
84:20 86:11,15
109:4 148:2
200:16 219:14
221:4 224:7
231:4 240:9
255:15
informed 51:19
134:20
inherent 65:5
initial 10:8 85:5
85:15 86:20
87:20 88:4
181:22
initiate 246:13,22
initiating 190:1
initiatives 237:21
injection 48:7,18
50:13 51:4 52:7
52:11,12,17 53:4
injury 132:22
injustice 138:15
138:15,16,16
input 86:22
106:24 118:17
267:20
inputs 97:7 177:4
inserting 260:24
insight 267:8
insinuated 91:24
inspection 130:22
Inspections 12:10

| install 141:14 | 186:24 | 88:8 89:17 | 2:17 |
| :---: | :---: | :---: | :---: |
| 196:8 | interject 251:14 | 107:9 108:6 | Jo 5:4 6:6 7:1 |
| installation 52:11 | 262:3 | 109:21 120:16 | job 103:13,15 |
| 52:21 195:15 | international | 121:6 123:18,23 | 113:18 119:5 |
| 196:3 204:15 | 136:2 | 142:2,12 159:10 | 163:5 |
| 217:16 | interpretation | 242:15,19 | jobs 112:20,23 |
| installed 47:3 48:6 | 83:21 84:7 | issued 52:9 55:13 | 113:2,3,24 |
| 51:3 52:6 53:3 | 261:12 | 55:14 233:20,23 | 114:16,17 |
| 66:10 78:20,21 | interpreter | 234:1 242:9 | 152:12 |
| 79:2 191:6 | 101:24 | 246:15 | joins 176:20 |
| 201:2,15 203:22 | interpreters | issues 85:17 106:6 | jointly 269:1 |
| 204:13 206:18 | 139:17 167:20 | 108:14 123:14 | Joliet 45:17 46:3 |
| 206:22 208:18 | interpreting | 129:14 135:8 | 104:6,24 105:8 |
| 212:9 215:16 | 213:9,10 | 136:1 262:8 | 134:19 135:7 |
| 229:23 230:2,3,4 | interrupt 25:1 | item 9:24 17:10 | 168:22 |
| Installing 195:10 | 179:4 | 27:7 | Joliet's 134:9 |
| instance 50:24 | interrupted | items 48:12 | Jorgensen 102:10 |
| 87:10 170:8 | 240:23 | 186:16 | 102:12,14 |
| 189:23 | interrupting 57:5 | iterative 15:11 | JOSHUA 2:14 |
| instances 26:24 | 179:15 |  | judgment 121:4 |
| 27:11 41:18,22 | introduce 232:16 | J | Juen 112:3,3 |
| 225:2 | introduced 141:1 | J 3:2,7 124:8 | 121:11,12 |
| institutional | invading 174:2 | 255:11 | 162:17,17 |
| 245:19 | invaluable 165:21 | J.B 146:5 | July 233:23 |
| instrument | invasive 175:13 | Jack 159:16,17,20 | jump 69:19 |
| 245:23 | investigating 26:6 | Jackie 125:16,17 | June 130:16 |
| insure 147:2 | investigation | Jacobs 134:3,4,7 | justice 4:19 67:18 |
| intact 114:14 | 130:21 | 134:7 | 68:10,24 69:14 |
| integral 107:1 | investment | James 1:12 127:4 | 69:16,18 70:2 |
| integrity 133:7 | 122:16 126:21 | 127:5 | 106:18 107:12 |
| intend 11:3 | inviting 171:12 | Jane 127:21 | 116:24 117:10 |
| intended 228:6 | involved 87:17 | Janis 107:6,7,10 | 119:1 146:12 |
| intends 211:22 | 99:1 136:4 | January 234:1,24 | 153:1,13 |
| intense 117:18 | 140:12 165:6 | jcassel@ earthj... | justification |
| intent 43:21 78:12 | 258:11 | 4:13 | 248:20 249:11 |
| 79:3 114:13 | involvement | Jeff 229:17 267:3 | justifies 13:24 |
| 115:14 177:2 | 253:3 | Jeffrey 4:15 <br> 205.15 241:21 | justify 13:20 |
| $217: 22$ | Iowa 140:12 irreplaceabl | Jennifer 2:4 4:11 | K |
| interest 14:2 | $165: 22$ | 100:14 179:2 | K 222:5,9 272:2 |
| 97:13 | Isaiah 153:5,6,6,7 | jeopardized | K-1 221:23 222:7 |
| interesting 69:2 | 153:9 | 131:12 | 222:9 |
| 69:15 198:21 | Island 171:13 | jhammons@elp... | K.2.1 222:10,20 |
| 204:9 | isolated 143:15 | 4:17 | Kain 143:8,9 |
| interference 138:6 | issue 55:16,17 | jmore@schiffh... | Kaitlyne 130:8,8 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 132:3,3 | 254:18 257:24 | 133:12 135:4 | 151:5 | landowners |
| :---: | :---: | :---: | :---: | :---: |
| Karen 130:10,14 | 260:12 264:15 | 137:6 139:4,7,8 | lacking 171:20 | 176:12 177:2,9 |
| Karyn 132:2,2 | kinds 150:13 | 142:5 146:12 | Ladies 119:16 | lands 174:4 178:4 |
| Kaskaskia 173:7 | 251:19 | 148:19 149:8,18 | lake 111:15 116:6 | landscaping |
| 173:12 | King 5:6 230:17 | 154:20 156:23 | 116:10,22 | 171:11 |
| Kathleen 132:5,5 | 230:20,22 231:3 | 158:7 161:3 | 117:14,17,21 | language 40:15 |
| 132:14 134:1 | 231:20,20 232:3 | 162:2 163:10 | 133:16,17,18 | 101:24 187:19 |
| 141:18,19 | 232:5,7,10 | 169:12,18 171:2 | 142:4 144:23 | 197:4 198:14 |
| Kayla 134:3,7 | 235:20 236:9,10 | 171:4,6 172:3,7 | 158:5,8 | 213:9,12 225:6 |
| kcourtney@elp... | 236:13,15,19,19 | 174:24 175:23 | lakefront 117:21 | 264:16 |
| 4:8 | 237:15 240:1,3 | 177:15,17,19,20 | lakes 115:8 | large 12:8,17,20 |
| keep 70:17 104:24 | 240:22 241:5,10 | 179:12 181:19 | 126:15,23 133:5 | 30:17 33:1 |
| 119:11 120:5 | 241:13,18,23 | 182:17 190:24 | 133:7 143:17 | 133:8 195:16 |
| 127:10 129:13 | 243:8 249:5 | 198:3 210:15 | 173:4 | 204:5,17 |
| 138:17 146:19 | 250:6,22 251:16 | 215:18 216:19 | Lakota 5:4 6:6,10 | larger 11:17 88:4 |
| 150:15 153:11 | 258:19 259:3,5,8 | 219:23 220:18 | 6:12 7:1,13 9:2 | 98:16,17 181:12 |
| 153:22 163:16 | 259:24 262:11 | 221:10 223:8,19 | Lakota's 6:22 7:4 | 181:16 182:3 |
| 168:2 249:3 | 263:5,7 266:22 | 231:19 240:23 | Lali 137:19,20 | largest 131:18 |
| keep-you-up-at... | 267:1,7 268:21 | 260:10 262:2 | 164:11 | 172:22 |
| 107:20 | 268:22 270:9 | 264:7 | land 1:4 125:21 | Larry 140:4,4,8 |
| keepers 153:2 | King's 249:8 | know-how 149:4 | 127:1 130:23 | LaSalle 2:21 |
| keeping 118:13 | 262:4 | knowledge 53:12 | 143:24 144:12 | lasting 107:13 |
| 124:2 | Kingston 169:3 | 196:5 | 161:16 164:20 | late 121:15 180:12 |
| Kelly 135:19,19 | kitchen 215:6 | knowledgeab | 173:15 176:23 | Laudato 134:9 |
| 141:20,20 | knew 139:22 | 54:24 | 226:22 250:16 | Laurette 141:21 |
| 162:19,20,23 | 140:23 168:22 | known 10:16 | 250:16 | law 4:6,15,18 |
| kept 114:14 146:7 | 168:23,24 | 97:20 122:6,2 | landfill 104:6 | 114:13 155:24 |
| 253:17 | know 18:9 23:4 | 126:2 153:6 | 134:23 171:11 | 156:4,11 205:16 |
| key 13:12, | 32:3 40:9 45:9 | 234:15 | 172:20,23 | 229:18 241:22 |
| 106:22 | 45:19 46:21,23 | knows 73:6 82:7 | 173:11 201:16 | 245:24 248:9,20 |
| kg@nijmanfra... | 50:9 53:20 54:7 | 169:4 171:5 | 224:14 237:7 | 249:11 250:8 |
| 22 | 58:23 59:24 | 177:17,18 | 238:1 | 251:19,22 267:3 |
| KIANA 4:6 | 60:16,20 61:5 | 185:11 | landfills 89:24 | lawmakers 133:19 |
| kicking 186:3 | 67:12 69:10,11 | Koehl 168:12,12 | 91:1,8,13,15,19 | Lawn 123:12 |
| kidney 109:16 | 69:12 82:4,9,14 | 168:13,13,16,19 | 91:20,23 93:9 | Lawndale 105:20 |
| kids 123:13,17 | 83:16,17 85:23 | 168:20 | 111:9,12,14,19 | 105:21 |
| 124:12,13,24 | 87:14,23 88:15 | KPRG 39:8,9 | 116:19,20 | laws 153:11 |
| kill 156:7 | 91:6 92:9,12,14 | Kristen 2:20 | 126:11 129:7,9 | 169:11 |
| killed 156:6 | 95:20 97:14 | 47:20 70:6 | 129:12 131:14 | lawsuit 12:23 30:9 |
| kills 156:8 | 98:7 102:4 | 80:10 135:21,22 | 133:8,15,20 | 130:17 159:23 |
| kilo 222:5,10 | 107:15 109:5, |  | 135:2 136:20 | lawyer 132:15 |
| kind 86:9 87:16 | 119:22 120:3 | L | 149:12 151:1 | 144:24 250:6,6 |
| 122:15,17 | 123:16 124:11 | L 1:11 272:4, | 158:15 159:6 | lawyers 250:12 |
| 142:24 156:14 | 127:10,15 | labor 135:24 | 173:3 201:21,24 | lay 94:8 109:22 |
| 182:18 253:17 | 130:17,19 133:6 | 136:6 144:23,24 | 227:9 | layer 48:20 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 201:20 210:11 | 137:21,23 | legislature's | light 209:23 | 211:14 219:11 |
| :---: | :---: | :---: | :---: | :---: |
| 211:1,8 | 168:21 | 257:24 | likewise 20:18 | 225:24 226:4 |
| layers 210:10 | leak 200:23 | legitimate 215:21 | limit 40:16 50:21 | liners 40:16,16 |
| lays $92: 15$ | leakage 126:22 | length 44:9 | 101:13 110:19 | 194:2,7,9,17 |
| leach 135:4 | leaking 116:22 | Leonard 154:8,9 | 113:17 128:16 | 196:18 197:6 |
| leachate 39:17 | 144:2 164:23 | 154:12 | 165:9 206:11,13 | 198:12,16,17 |
| 48:21 63:18 | 185:5 237:6 | lessens 177:3 | 206:15 257:14 | 200:12,20 |
| 64:17 65:3,12 | leaks 129:11 | let's 25:1 61:10 | limitation 257:24 | 208:20 |
| 169:7,9 172:6 | 202:2 | 73:18 99:3 | limited 10:11 11:5 | lines 42:6 188:11 |
| 187:10 188:2 | leaky 183:18 | 139:8 202:20 | 35:23 38:8 | 222:11 |
| 193:22 194:24 | leaned 156:16 | 207:11 231:14 | 123:7 193:11 | liquefaction |
| 195:1,8,10,23 | learn 120:14 | 258:18,19 | 226:13 228:6 | 235:22 |
| 196:9 200:10,15 | 154:15 179:4 | letter 233:19 | 236:18 247:7 | liquid 44:5 183:6 |
| 200:19 201:2,6 | learned 136:6 | 234:2,6,11 236:5 | 262:13 | 183:11,13 |
| 201:20 202:18 | 137:1 161:24 | 236:8 | limiting 167:13 | 214:23 222:22 |
| 202:23 203:21 | 176:24 177:1 | letting 121:12 | limits 198:16 | 222:24 |
| 204:10,12,21 | learning 142:1,3 | 124:4 170:19 | Lincoln 69:22 | liquids 44:15 |
| 205:24 206:4,22 | 143:2 | level 16:20,22 | 70:1,20,22,23 | 214:18,21 |
| 208:11,17,22 | leave 6:17 114:24 | 98:7 107:21 | 71:19 134:19,20 | 222:12 |
| 209:8,14,21 | 149:16 151:3,10 | 108:5 110:8 | 135:1 144:12 | Lisa 239:18 |
| 210:4,11,12 | 153:4 180:12 | 135:13,14 136:2 | line 9:8 31:24 32:1 | list 107:20 187:15 |
| 211:2,3,3 212:8 | leaving 143:23 | 222:24 226:2,5 | 36:24 41:17 | 188:1 256:8 |
| 213:1 214:5 | 149:13 | 228:2,6 229:7,9 | 48:10 81:4 | listen 151:12 |
| 219:11 221:2,6 | led 33:12 | 229:10 | 91:15 93:2,4 | listened 239:10 |
| 222:17 223:4 | leeway 188:6 | leveled 226:22 | 101:7 144:10 | listening 121:9,13 |
| 225:19,20,23 | left 13:8 44:12,16 | levels 98:12,20 | 154:4 156:5 | 142:16 164:10 |
| 227:8 229:22 | 102:23 126:7 | 108:15 117:17 | 157:8 170:11 | literally 154:18,22 |
| leaching 104:11 | 128:9 144:14 | 117:21 129:9 | 183:23 186:15 | 164:16,20 |
| 150:22 185:5 | 166:22 174:22 | 146:15 | 202:3 222:20 | literature 167:21 |
| lead 47:7 79:22 | 175:9 181:10 | liabilities 138:4 | 229:2 | lithium 129:10 |
| 125:24 129:10 | 225:3 249:14 | liability 166:16 | lined 150:22,24 | little 4:19 31:4 |
| 177:12,21 | legacy 15:18 | 248:10,21 | 154:16 161:19 | 43:14 60:21 |
| 182:24 224:10 | 261:5,15 265:17 | 249:12 | liner 40:19,22 | 67:15 76:8 78:1 |
| 237:17 | legal 213:8,11,11 | licensed 212:16,18 | 48:22 63:19,20 | 90:2 97:19,22 |
| leader 122:5 | 213:16 243:14 | lies 171:5 178:6 | 64:18,19 65:13 | 161:8 170:13 |
| 123:13 144:12 | 249:19,23 | life 95:14 96:9 | 65:14 92:15,18 | 171:3 172:1 |
| 168:8 | 250:15 251:4,6 | 118:9 119:4,5 | 92:19,24 183:17 | 194:7 206:8 |
| leaders 148:15 | 251:21 262:4,6 | 141:4 161:2 | 183:18 194:10 | 221:9 240:22,24 |
| leadership 148:18 | 266:9,13 268:15 | 164:19 173:5 | 194:14,15,16 | 241:5 249:15 |
| 149:15 | legislation 133:6 | 175:18 222:24 | 196:20 197:2 | 253:20 255:17 |
| leading 143:10 | 257:18 258:1 | life's 109:3 | 198:19 199:24 | 257:22 260:2 |
| leads 11:24 41:17 | legislative 30:22 | lifelong 116:4 | 200:14,24 201:1 | live $38: 15$ 68:1,3 |
| 149:6 163:18 | 258:9 | 121:15 | 201:15,18 202:2 | 102:14 104:4 |
| League 125:18,19 | legislature 257:15 | lifestyle 150:5 | 203:24 206:6 | 105:22 109:23 |
| 126:12,20 | 257:17 | lifetime 172:22 | 207:1,4,5 211:11 | 120:7 121:16,21 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 122:7 125:3 | 159:13,13 161:7 | loss 117:20 174:9 | Madam 213:4,7 | 75:12,14 192:4,6 |
| :---: | :---: | :---: | :---: | :---: |
| 127:6 132:14 | 162:2 169:20 | lost 109:6 158:12 | 230:18 232:15 | 192:8 218:16,18 |
| 140:14 141:2 | 174:1 230:10 | 158:16 159:1 | 251:1,13 267:2 | 230:18 231:8,11 |
| 144:1,3,3 147:22 | 238:17 246:1 | lot 31:9,22 86:14 | Madison 112:17 | 231:16,23 232:1 |
| 150:3,4 159:20 | long-term 103:6 | 97:14 107:18 | 140:10,14 | 232:13,20 233:1 |
| 166:3,12 168:20 | 105:3 131:5 | 108:13 139:16 | 151:23 174:19 | 233:5,8,12 |
| 171:1,2 172:17 | 141:5 158:9 | 168:24 169:1 | Magruder 231:6 | 236:15 241:4,6 |
| 172:18 174:17 | long-time 158:2,3 | 176:16 189:24 | maintain 10:20 | 242:12 250:3,5 |
| lived 148:6,9 | 158:14 | 207:9,17,18,20 | 135:15 195:13 | 250:24 251:13 |
| 154:20 | longer 15:19,20 | 249:1 | 222:24 225:24 | 262:2 |
| lives 112:21 | 122:1 143:23 | lots 27:4 | 253:6 | Manning's 250:20 |
| 130:15 146:17 | 144:16 167:6 | Louis 157:5,10 | maintained | 263:4 |
| 146:18 159:1 | 174:5 216:12 | love 109:1,23 | 216:11,15 | $\boldsymbol{\operatorname { m a p }} 75: 3$ |
| livestreamed | longest 173:7 | 171:12 176:5 | maintaining | Maradocia 234:4 |
| 101:21 | look 18:18,20 | loved 109:6,12,24 | 255:21 | 234:7,23 235:14 |
| living 133:2 141:3 | 19:14 21:4 | 110:13 161:2 | maintains 255:15 | 235:21,23 236:3 |
| 146:4 158:4 | 27:14 33:7,9,10 | low 146:7 | major 113:10 | 236:7 238:10,16 |
| 169:24 170:2 | 35:20 39:20 | low-income | 131:13 174:9 | March 234:8 |
| LLC 3:17,19 | 98:22 138:22 | 146:21 | majority 12:12 | 238:12 |
| 38:13 236:6 | 139:2 182:4,6,10 | low-permeability | making 35:15,18 | marginalized |
| LLP 2:20 3:13 | 182:11,14 | 194:11,15 199:7 | 101:12 106:22 | 122:8 |
| load 216:21 | 190:20,23 191:1 | low-sulfur 53:16 | 120:21 121:2 | margins 183:4 |
| loaded 41:15 | 197:7 219:17,22 | 53:22 54:9 | 139:3 145:4 | Maria 144:20,22 |
| 216:13,18 | 221:1 244:2 | lower 13:10 | 148:22 160:5 | Marie 2:3 180:16 |
| loads 207:15,16 | looked 18:11,14 | lowest 139:8 | 213:22 247:22 | Marion 146:23 |
| local 116:5 154:22 | 20:12 170:11 | Loyola 130:8,8 | man-made 214:15 | 164:21 |
| 177:2 178:4 | looking 11:20 | 132:3,3 | management | Marissa 112:22 |
| locate 25:18 | 12:1 23:21 | luck 170:18 | 28:21 125:22 | mark 5:4 9:7 |
| located 41:11 | 32:16 54:11 | lunch 76:7 | 150:18 240:11 | 10:21 101:15 |
| 59:16 60:3,23 | 80:3 81:6 82:13 | luncheon 99:8 | 253:4 | 147:13,13 154:1 |
| 69:13 70:1 | 82:17 93:18 | Lundholm 147:13 | manager 155:8 | 154:1 |
| 146:22 173:4 | 182:12,18 184:6 | 147:13 154:1,2 | 156:2 250:16 | marked 7:10 10:5 |
| location 33:3 47:1 | 186:8 189:10 | Lundy 39:8,15 | 256:20 | 20:4,24 22:2 |
| 47:2 103:18 | 198:2 203:5 | 193:15 | manager's 256:19 | 24:7 25:24 |
| 140:17 | 208:15 213:12 | lung 109:16 | managers 156:17 | 37:13 38:2 74:2 |
| locations 42:7 | 220:17 242:3,20 | 124:16 145:1,2 | managing 107:22 | 77:7 82:2 |
| 75:4 103:1 | 252:17 | Lynette 170:21 | mandate 206:11 | 197:15 232:12 |
| 111:22 126:14 | looks 98:18 170:8 |  | 226:9 | 233:7 |
| 130:23 131:11 | 264:15 | M | mandated 195:3 | market 31:14 |
| Lois 143:8 | loop 158:4 226:7 | M 2:7 61:12 | 226:5,6 227:9 | markets 13:14 |
| long 42:9 46:5,14 | loophole 135:2 | ma'am 224:17 | mandating 194:17 | married 103:9 |
| 47:8 88:15 | loopholes 136:11 | MacKay 132:5,5 | manner 72:15 | marry 155:1 |
| 107:13 127:8 | 173:20 | 132:6,10,13,14 | 79:21 166:8 | Mary 147:15,15 |
| 130:10,11,13,14 | loose 204:20 | MacLeod 130:10 | Manning 3:14 8:8 | 147:21 149:21 |
| 152:19 157:20 | loot 153:13,16 | 130:11,13,14 | 8:10 34:7,8 | 149:21 154:3,3 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 179:5 | 131:3 | 121:15 125:18 | 151:19,20 232:8 | 24:20 25:12 |
| :---: | :---: | :---: | :---: | :---: |
| mask 45:11 156:3 | means 47:1 | 137:21 140:9 | Michigan 111:16 | millions 116:23 |
| masks 137:5 | 136:18 148:22 | 141:24 179:1,1,2 | 116:10,22 | mind 146:20 |
| massive 144:8 | 214:15 215:1,1 | members 67:17 | 117:14,21 | 199:11,18 |
| material 27:22 | meant 84:5 | 68:9,23 100:13 | 133:16,17 142:4 | mine 56:2 120:4 |
| 31:15 48:13 | measurable | 105:17 110:23 | 158:5,8 | 215:18 216:21 |
| 50:15 89:11 | 136:19 165:11 | 111:17,24 | microphone 78:1 | miner 120:19,20 |
| 90:4 91:22 92:1 | measure 39:12 | 112:24 114:7 | 101:2 112:6 | 120:21 124:15 |
| 92:10 93:3,9 | 59:2 60:13 | 119:7 138:23 | 241:4 | 124:19 |
| 186:18 211:17 | 8:23 147:5 | 147:6 170:10,16 | mid 38:12 | mines 144:5 |
| 211:21 216:21 | 186:11 189:10 | 175:16 178:8,24 | mid-size 12:6,14 | minimize 63:20 |
| 217:7 229:10 | measurement | 179:2 270:24 | 12:20 | 64:18 65:13 |
| materials 60:10 | 94:16,23 95:4 | 271:8 | middle 110:11 | 201:21 206:5,24 |
| 60:10,12 89:16 | 181:18 | memorized 55:10 | 144:8 164:23 | minimized 245:14 |
| 103:17 | measurements | Men 146:24 | 184:7 | 245:18 |
| math 175:3 | 94:10 95:6,13,21 | mentioned 31 | midst 141:2 | minimizing 207:3 |
| matter 1:3 27:20 | 96:3,6 98:8 | 36:170:15 | Midwest 2:23 | minimum 36:14 |
| 52:8 53:6 | 135:6 181:11,23 | 171:22 181:12 | 7:18 29:19 | 138:12 211:9 |
| 100:17 169:23 | measures 113:17 | 225:18 257:10 | 37:18,23 38:12 | 217:9 |
| 176:22 246:5 | 171:19 172:9,10 | mercury 125:24 | 38:17,22,24 39:7 | mining 120:20,21 |
| 250:23 270:21 | 187:11 246:23 | 127:11 171:7 | 40:18 42:23 | 124:17,20 |
| matters 270:13,19 | measuring 59:10 | Meredith 149:23 | 45:16 48:6,9,22 | ministry 134:9,10 |
| Matteson 163:6 | mechanic 185:16 | 150:2 | 49:16,20,23 | 134:11 |
| maximize 201:20 | mechanism 83:18 | Merriam | 50:12,17 51:3,9 | Minnesota 199:16 |
| maximum 211:9 | mediation 239:21 | 56:7 | 52:6,13 53:3,14 | 199:18,21 |
| 229:9 | medical 118:17 | mess 157:14 170:1 | 53:23 54:15 | minority 146:21 |
| Maya 175:23 | Medina 3:17 | message 161:17 | 61:12 66:10,14 | minus 194:13 |
| McGinnis 135:19 | meet 94:11 211:18 | 175:14,15 | 67:1,6 69:10,13 | 211:16 |
| 135:19 141:20 | 212:10 214:6 | message/story | 78:9 80:20 | minute 76:19 |
| 141:20 | meeting 70:23 | 175:22 | 159:24 193:18 | 181:9 270:12 |
| McGrath 125:16 | 73:3 105:7 | met 136:4 | 198:18 205:18 | minutes 10:12 |
| 125:17,17 | 166:18 199:1 | metals 60:16,17 | 216:2 220:22 | 38:8 76:9 |
| mean 12:5,22 | meetings 71:8 | 61:2 103:14 | 259:4 269:13 | 103:24 110:20 |
| 24:24 60:5 | 73:7 167:20 | 107:13 | Mighty 176:20 | 174:24 193:12 |
| 61:18 87:12 | meets 129:21 | method 10:23 | Mike 231:21 | 236:18 240:22 |
| 96:17 169:2 | 213:1 | 11:6,24 27:2,5,8 | 232:4 | Miriam 157:19,19 |
| 185:5 190:6 | Megan 172:13,13 | 27:13 33:16,17 | Mildred 154:8 | 157:21 158:2 |
| 204:24 215:2 | MELISSA 3:20 | 35:10 203:10 | mile 150:3 217:18 | mischaracteriza... |
| 244:13 255:17 | 34:4 75:10 | methodology | 217:19 | 56:15 |
| 264:14 | 192:2 218:14 | 61:23 62:3 | miles 117:4 | mischaracterized |
| meaning 42:9 | 259:16 270:1 | methods 26:19 | 130:15 159:21 | 90:1 91:18 |
| 79:1 262:19 | melissa.brown.. | 27:6 35:16 | 174:20 | misery 144:7 |
| 267:11 | 3:22 | Metro 112:15 | milestone 178:1 | misquote 211:7 |
| meaningful | member 2:3,4,4 | 140:9,13 151:22 | million 12:4,6,9 | missed 186:6 |
| 106:21 119:1 | 100:13,14 106:5 | Michael 5:7 | 19:5,7 24:17,19 | 210:23 |

L.A. Court Reporters, L.L.C.

312-419-9292

| missing 61:24 | 197:4 238:3 | 187:16 188:1,6 | 228:24 231:11 | 174:16 176:4 |
| :---: | :---: | :---: | :---: | :---: |
| 180:10 | modifications | 188:12,23 191:4 | 241:1 242:24 | 197:22 199:14 |
| mission 136:15 | 39:11,16 | 191:6 235:7 | 249:23 269:1 | 231:20 236:19 |
| 162:8 163:8 | Mohawk 4:2 | 240:5 245:2,7 | moved 47:1,4 93:7 | nameless 175:18 |
| Mississippi | Moline 140:13 | 247:8 | movement 191:4 | Nancy 157:20 |
| 140:16 167:3 | mom 108:17 | monitors 58:11 | 207: | 159:13,13 |
| 176:8,20 | mom's 108:8 | 59:2,15,21 60:5 | moving 14:9 | Naplate 108:8,12 |
| Missouri 3:18 | moment 14:20 | 60:6,19 74:20,22 | 18:24 26:14 | narrow 60:21 |
| misspoke 56:16 | 21:4 22:12 | 75:4 78:20,22,23 | 29:19 34:1,6,10 | Nathan 159:14,14 |
| mistakes 178:13 | 77:24 178:3 | 240:10 | 34:15 36:23 | 162:12,12 |
| mitigated 163:7 | 198:5 203:16 | Monroe 3:3 | 74:6 112:3 | nation 52:22 |
| mitigating 240:17 | 220:2 221:21 | monthly 94:10,16 | 122:5 147:10,13 | nation's 111:12 |
| mixed 53:21 | 223:7 | 94:23 95:12,17 | 157:19 162:13 | national 136:2 |
| 200:16 219:13 | Monday 72:5, | 95:21 96:8 | 188:9 191:17 | 137:22 165:2 |
| 221:3 | 232:15 | months 17:21,24 | 200:4 203:14 | nationally 142:14 |
| mobile 41:14,21 | money 156:13 | 131:1 164:19 | 205:7 211:23 | ative 177:8 |
| 42:8 45:14 | 174:3,9 217:22 | moral 132:16,19 | 218:4 227:20 | natural 128:11 |
| 46:15,18,21,22 | monitor 60:2,16 | 133:2 | 230:16 | 130:3 163:6 |
| 46:24 47:8,9 | 61:1 | morning 6:1 9:10 | muffled 45:8 | 214:15 230:6 |
| model 84:12,13 | monitored 42:3,4 | 9:11 14:17,24 | multiple 105:8 | 236:1,5 |
| 85:2,7,9,10,13 | 105:2 126:18 | 19:15 30:6,7 | 117:7 176:9 | nature 119:21 |
| 85:14,19,24 86:9 | 129:8 188:3 | 36:11 40:5 45: | 178:9 204:23 | 186:9 189:7 |
| 86:23,24 87:1,22 | monitoring 39:11 | 72:5,13 181:10 | municipalities | 195:19 206:13 |
| 88:5,10 98:1,6,9 | 48:14,15 54:16 | mother 147:23 | 166:21 | 230:23 |
| 98:11,13,14 | 54:22 56:19,23 | 148:2 150:2 | muted 119:12,13 | NCY 19:6 |
| 181:24,24 | 57:11,17,22 58:1 | mother's 148:5,7 | MWG 61:12 | near 68:2,3 |
| 200:13 202:9 | 58:4 59:24 | motherless 149:17 | 66:14 67:24 | 104:15 140:15 |
| 203:4,5 219:9,16 | 60:15,23 66:10 | mounds 144:5 | myopic 161:5 | 72:17,18 173:4 |
| 221:2 225:20 | 66:19,21 67:7,8 | mourned 153:7 |  | 216:22 |
| modeled 209:8,10 | 74:16 78:9,14 | movable 47:6 | $\mathbf{N}$ | nearby 56:12,24 |
| 210:3 223:8,15 | 79:1,3,9,10,11 | move 9:6,22 17:4 | N 2:1 3:1 4:1 | 104:19 117:3 |
| 223:20 225:5 | 79:15,16,18 | 19:19 20:18 | name 36:11 38:10 | 128:10 176:5,7 |
| modeler 85:11 | 81:10 82:20 | 23:17 24:2 | 40:5 100:4 | nearly 108:16,17 |
| 86:7 87:7,10 | 83:1 85:3 86:19 | 25:19 26:12 | 102:14 104:4 | 114:7 |
| modelers 86:23 | 91:7 92:10,22 | 27:1,12 39:24 | 105:18 107:10 | necessarily 26:19 |
| 87:2 | 94:1,2,12 95:3,8 | 44:24 72:18,20 | 114:5 116:3 | 42:7 86:17 |
| modeling 15:10 | 95:9,15,17,18 | 77:13 93:16 | 119:16 127:5 | 90:18 161:22 |
| 84:4,6,11,21 | 98:11,21 99:1 | 110:18 122:14 | 129:13 130:13 | necessary 84:4,6 |
| 85:12 86:12 | 113:13 129:17 | 123:6 124:22 | 132:14 134:7 | 84:12 88:21 |
| 87:14 97:23 | 129:19 130:22 | 125:7 132:4 | 135:22 137:20 | 95:5 155:7 |
| 202:6,7,16,21 | 165:9 166:9 | 141:21 148:8 | 140:8 144:22 | 161:23 170:7 |
| 203:1,2,2 | 167:7,15 180:6 | 154:7 183:24 | 147:21 150:2 | 200:11 208:12 |
| models 88:22 | 182:4 184:22 | 186:6 192:21 | 151:20 158:2 | 209:14,22 239:8 |
| modes 145:12 | 185:13,15 186:1 | 197:16 212:22 | 160:20 166:3 | need 49:1 51:19 |
| modification | 186:18,20 | 214:2 216:1 | 168:19 172:15 | 68:16 72:9 79:4 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 82:6,7 84:14 | 112:24 138:24 | 109:22 | November 234:19 | objecting 50:1 |
| :---: | :---: | :---: | :---: | :---: |
| 86:1 87:3,8,10 | 154:23 | night's 67:13 | 234:21 235:3 | 51:6 |
| 87:15 96:2 | nephews 148:10 | NIJMAN 2:20 | NRG 38:11 | objection 47:17 |
| 98:21 102:2 | network 4:20 85:3 | nine 159:21 | 116:11 130:16 | 47:19,21,23 48:8 |
| 104:21 111:20 | 86:19 | 174:20 238:14 | 130:19 131:2 | 49:21 67:22,24 |
| 111:21 113:12 | neurotoxins | Nineteen 236:4 | 159:21 160:9 | 70:3,6,9 71:21 |
| 116:20 117:6 | 109:15 128:13 | ninth 234:14 | NRG-owned | 72:3,24 73:14 |
| 122:21,22,22 | never 58:23 59:10 | noise 257:20 | 116:13 | 80:8,11 81:4,19 |
| 123:16,19,24 | 91:23 95:16 | non 208:21 | nuclear 117:5 | 81:21 91:9 97:3 |
| 124:1 125:12 | 96:12 98:24 | non-cancer | 171:9 | 242:13,22 |
| 126:9 127:13 | 108:23 188:21 | 194:22 | number 11:12 | 250:20 262:3,23 |
| 142:10,17,19,20 | 188:23 196:4 | non-detect 189:3 | 24:13 25:2,11 | 263:4 |
| 147:1 151:6 | 208:17 211:16 | non-detects | 33:10 45:11 | objections 93:6,11 |
| 165:14,14 | 228:8 | 185:15 190:7 | 74:18 77:5 | 93:13 |
| 167:14,16 168:2 | Nevertheless | non-English-sp... | 100:10 101:12 | objective 134:11 |
| 171:15,16 172:9 | 209:12 | 167:21 | 114:9 197:13 | objectives 91:4 |
| 173:20 176:5 | new 1:5 78:16 | nonabsorptive | 220:4,7,14 232:1 | 237:8 |
| 181:19 183:24 | 86:16 100:7 | 199:8 | 234:20 235:11 | obligation 132:19 |
| 186:19 194:6 | 145:24 193:23 | nonpartisan | 235:13,15,22 | 133:2 |
| 204:4,16 228:1 | 194:9,18 196:9 | 125:20 | 236:2,4 263:7,10 | observations |
| 244:15 | 200:11 227:18 | noon 76:9 99:4 | 263:11,14 | 13:12 239:13 |
| needed 84:21 | 248:9,21 249:12 | normal 120:12 | numbering 217:6 | observed 140:20 |
| 86:12 93:8 | 255:11 | normally $74: 21$ | numeric 245:2,8 | obtain 57:22 58:1 |
| 113:16 128:19 | news 22:18 | 75:1 | numerical 84:3,6 | 145:1 247:3 |
| 129:1 149:3 | nice 138:11 | north 2:8 24:14 | 84:11 85:10 | obtained 161:8 |
| 167:22 207:24 | Nicole 159:16 | 25:3 150:3 | 97:23,24 | obtaining 238:15 |
| needle 262:19 | nieces 148:10 | 234:10,12 235:2 | numerous 87:17 | obvious 32:4 |
| needs 32:13 | Nielson 5:6 37:20 | Northern 119:17 | 195:14 200:22 | obviously 155:22 |
| 117:23 122:4 | 39:8,14 48:17 | 140:15 | 204:5,17 217:20 | 252:4 |
| 125:8 137:7 | 64:21 65:2,16,20 | Nos 10:5 | 237:18 | occasional 199:5 |
| 154:14 155:6 | 65:22 192:22,23 | notable 32:18 | NW 4:16 | occupants 146:15 |
| 168:8 182:7 | 193:4,14 197:22 | notably 13:13 |  | occur 163:7 |
| needy 153:12 | 205:8,20 210:20 | note 27:18 33:9 | O | occurred 96:4 |
| negated 204:3 | 212:23 214:4 | 73:13 76:5 | O 272:2,2 | 186:3 |
| negatively 118:9 | 218:5 219:3,8,24 | 160:13 198:21 | O'Fallon 112:14 | occurrence |
| negatives 190:16 | 222:4 223:22 | noted 12:13 13:18 | Oak 123:12 | 200:20 |
| negotiations | 225:8,10,17 | 19:4 22:22 | oath 272:5 | occurrences |
| 79:18 | 228:24 229:16 | 23:16 26:18 | Obama 143:13 | 200:22 |
| neighbor 69:8,9 | 229:23 230:11 | 28:6 35:3 105:9 | object 42:23 | occurs 44:14 |
| neighborhood | 230:12 | 205:19 258:8 | 49:22 51:8 | October 178:20 |
| 104:9 105:9 | Nielson's 41:1 | notes 12:19 183:4 | 56:14 61:13 | 233:17 261:6 |
| 176:6 177:7 | 49:9 63:21,24 | 184:1 272:9 | 81:18 92:20 | 265:18 270:20 |
| neighboring | 64:12,24 65:18 | notice 124:17 | 93:1 213:15 | 270:22,23,24 |
| 116:8 | 197:10 | 242:9 | 242:12,18 250:5 | 271:12 272:13 |
| neighbors 69:6 | night 108:24 | Notre 132:17 | 262:15 | off-site 182:21,24 |

L.A. Court Reporters, L.L.C.

312-419-9292

| offer 61:23 147:4 | 127:3,20,24 | 259:7,10,13,17 | 182:20 183:23 | 226:3,14 229:3 |
| :---: | :---: | :---: | :---: | :---: |
| 223:22 251:17 | 130:7,12 132:1,8 | 259:21 263:3 | 191:17 197:12 | 230:7 |
| 262:7 | 132:12 133:24 | 265:11 266:20 | 198:5 205:6 | operated 15:19 |
| offered 262:19 | 134:5 135:18 | 266:24 267:3 | 209:5,12 212:2 | 204:14,19 206:5 |
| office 3:7,11 8:12 | 137:18 140:3,6 | 268:20 269:8,11 | 216:6 218:3,8 | operating 95:14 |
| 34:11 75:17 | 141:17 143:7 | 269:16,19,22 | 220:20 221:20 | 161:14 195:10 |
| 192:9 218:21 | 144:19 147:12 | 270:2,5,8,11,16 | 221:21 224:8 | 201:3 222:17 |
| 259:18 270:3 | 147:19 149:20 | 271:6 | 231:22 232:6 | 223:4 225:19 |
| officer 1:9 2:2 6:1 | 151:18 153:24 | Officer's 51:11 | 233:1 236:17 | 226:19 229:24 |
| 6:3,12,15,20 7:2 | 154:10 157:18 | officials 113:1 | 243:18 252:1 | 230:3,4 246:14 |
| 7:7,11,17,21,24 | 157:23 159:12 | oftentimes 32:15 | 255:8 258:16 | operation 65:5 |
| 8:3,8,12,18,23 | 159:18 160:18 | oh 6:15 55:8 | 260:2,18 261:2 | 172:24 187:23 |
| 9:6,10,12,15,19 | 162:11,21 163:2 | 61:19 156:17 | 264:5 266:20 | 193:20 196:6 |
| 10:2,7,11 14:3,9 | 164:5 165:24 | 157:8 215:2 | 271:5 | 204:14 206:10 |
| 14:15,19 19:18 | 168:11,14,17 | Ohio 226:12 | old 104:6,6 106:4 | 222:12 226:8 |
| 19:20,23 20:19 | 170:20,24 | okay 6:11 7:7,17 | 116:13 174:5 | 227:19 |
| 20:20 21:21,23 | 172:12 174:11 | 9:1,10 10:2,7 | 235:20 238:16 | operational 96:9 |
| 24:1,4 25:6,18 | 178:17 179:7,12 | 14:3,15,20 15:4 | old-fashioned | 195:12 204:10 |
| 25:21 29:18,22 | 179:16,23 180:3 | 17:7 18:23 19:3 | 170:13 | 222:23 227:17 |
| 30:1 34:1,6,10 | 180:15,24 181:3 | 19:20,23 21:14 | Oliver 103:7,8 | 228:9 |
| 34:15,19,24 36:7 | 191:17,21,24 | 21:19,23 22:4 | on-sheet 138:4 | operations 49:16 |
| 36:17,23 37:2,6 | 192:4,12,15,21 | 23:8 24:4 25:21 | on-site 41:18 | 69:17 |
| 37:10,14,21 38:3 | 193:1,4,7,11 | 28:7,12 34:19 | 89:24 90:15 | operator 16:14 |
| 38:7 39:22 42:1 | 197:8,12,16 | 36:3,6,17 38:7 | 91:1,7 113:10 | 27:1 40:22 |
| 44:21 45:2 49:5 | 205:6,10 208:6 | 40:12,13 41:3 | 116:14 195:16 | 43:10,18 104:23 |
| 49:7 50:5,18 | 212:21 213:4,7 | 44:2 45:7,9 | 244:21 245:5,16 | 199:23 206:21 |
| 51:22 63:5 70:4 | 213:17,19,24 | 47:12 50:8 51:2 | 245:18 | 211:10 246:11 |
| 70:11,19 71:20 | 218:3,8,11,16,20 | 53:2 54:10,14 | once 20:19 72:8 | 246:13,21 247:1 |
| 71:23 72:4,14,17 | 218:23 219:2,18 | 56:6 57:8 58:10 | 85:7 86:22 87:2 | operator's 27:12 |
| 73:13,18,21 74:5 | 220:3,7 221:11 | 58:14 59:19 | 96:4 98:6 | operators 31:19 |
| 74:9,12 75:7,12 | 221:16,20 225:9 | 61:6 62:11 65:1 | 146:18 153:15 | 40:19 195:12 |
| 75:16,19,22 76:1 | 225:13 228:15 | 66:2 67:14 | 186:2 222:1 | 196:13 198:19 |
| 76:3,5,20,24 | 228:21 229:15 | 68:20 69:9 | 256:18 | 248:10,21 |
| 77:4,8,12,16 | 229:17 230:10 | 72:16 74:5,12 | one-size-fits-all | 249:12 |
| 80:17 81:3,16,17 | 230:16,19,21 | 75:7,22 77:4,12 | 188:7 | opining 91:13 |
| 81:20 82:4,10 | 231:5,9,14,18,22 | 77:22 78:5 80:4 | ones 109:13,24 | opinion 11:24 |
| 93:6,11,12,15 | 232:6,15,18,22 | 81:5,16 82:10,11 | 113:23 161:2 | 13:3,21,22 22:15 |
| 97:11 99:2 | 233:2,11 236:12 | 84:10 89:1 92:7 | open 10:14 184:3 | 30:23 31:5 |
| 100:2,5 103:21 | 236:17 237:13 | 94:15 96:14 | opened 48:9 50:17 | 33:10 55:16,17 |
| 105:13 107:6 | 240:1,20 241:7 | 98:7 103:23 | opening 38:4 | 58:18,23,24 |
| 110:17 112:1,11 | 241:12 242:22 | 112:13 130:9 | 120:1 | 62:18 79:8 94:9 |
| 114:3 115:24 | 243:5 248:24 | 132:4 135:20 | opens 48:22 | 107:1 155:5 |
| 118:4 119:9 | 249:22 250:3,19 | 147:21 155:8 | operate 49:24 | 156:12 193:22 |
| 121:10 123:5 | 251:1,11,14,20 | 156:18,19 158:1 | 195:22,23 | 194:1,6 200:10 |
| 124:7 125:15 | 252:1 258:16,24 | 180:23 181:3,6 | 196:17 206:9,22 | 202:14 209:12 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 213:8,11 225:18 | 156:14,15 | 196:13 248:10 | Palivos 2:3 100:13 | 266:3 |
| :---: | :---: | :---: | :---: | :---: |
| 240:13 243:15 | organizations | 248:21 249:12 | 79: | part-time 105:20 |
| 248:8,17 249:8 | 112:17 163:22 | owns 38:12 | Pamela 1:11 | partially 66:20 |
| 249:19,23 | organizing 177:6 | oxide 117:3,4 | 272:4,17 | 78:10,23 |
| 250:18 251:4,17 | originally 210:18 | P | paragraph 212:7 | Participant |
| 251:21,22 262:6 | orphans 153:14 | P | 222:20 224:12 | 101:23 |
| 262:19 263:19 | 153:17 | , | 263:19,24 264:1 | participants 7:12 |
| 266:9,13 | orthopedic 105:20 | 5:1,1 | parameter 188:1 | participate |
| opinions 11:2 | ought 251:21 | p.m 99:9 178:2 | 188:22 189:2 | 155:11 177: |
| 13:2 18:5 97:4 | outcome 136:9 | :10, | parameters 85:19 | participated |
| 162:24 193:19 | outcomes 165:12 | page 17:6 19:2 | 182:13,19 | 178:18 |
| 212:23 251:7 | outdoors 106:2 | 23:11 26:15 | 184:16,23 185:8 | participating |
| 262:4 268:15 | outlier 11:7 | 28:10 40:9 41 | 185:18,24 186:1 | 101:4 112:5 |
| opportunities | outrageous | 42:19 44:1 46:9 | 187:15 188:20 | participation 71:2 |
| 13:6 31:6 | 157:14 | 47:13 53:2 | 190:18,20,22 | 71:13 |
| opportunity 12:24 | outreach 177:7 | 4:10 61:6,11 | paramou | particular 22:5,7 |
| 39:19 49:6 | outside 18:13,16 | 63:15,17 66:2,2 | 133:18 | 26:8 27:2 35:10 |
| 71:12,14 104:3 | 42:14 47:10 | 67:14 68:18 | paraphrase | 63:24 95:8 |
| 107:3,8 115:22 | 61:4 89:17 91 | 82:13,14 83:2 | 175:23 | 137:1 182:16 |
| 116:3 118:2 | 2:21 97:3 | 89:4 93:18,20 | paraphrased | 185:9 187:23 |
| 128:2 138:7 | 167:8 | 101:22 184:2,3 | 68:15 | 188:23 189:23 |
| 143:2 150:1 | outskirts 174:18 | 184:18 186:13 | parents 158:16 | 199:2 225:24 |
| 153:20 159:9 | outstanding 52:3 | 188:9,11 198:2,7 | parishioners | 226:4 236:7 |
| 162:23 165:23 | overall 32:18 | 200:4 201:12 | 134:18 | 242:1 243:7 |
| 166:5 168:10 | overlaid 194:1 | 203:14 208:24 | part 13:23 15:14 | 252:15 |
| 174:15 198:14 | overlay 98:3 | 211:23 216:1,3,4 | 17:8 18:18 19:8 | particularly |
| opposed 188:7 | overlooking 142 | 216:5 219:22 | 22:7 26:9 29:12 | 208:24 238:22 |
| opposite 41:11 | overrule 81:20 | 220:14 221:23 | 31:3 32:13 | parties 70:12 |
| 190:6 | overruled 263:4 | 222:3,9 223:18 | 35:20 39:3 | 251:7 |
| option 30:19 | overseeing 35:15 | 224:9 241:24 | 63:23 64:8,11 | partners 166:16 |
| 31:11 32:17 | oversight 106:22 | 244:2 247:23 | 66:8 67:3,21 | parts 122:11 |
| 33:20 57:24 | 119:2 149:5 | 248:2,5 252:14 | 73:8 79:2 81:11 | 219:20 238:24 |
| options 11:22 | 168:5 171:20 | 254:15 255:5,7 | 90:18,22 97:23 | pass 8:18 106:11 |
| 26:19 30:24 | 238:17 | 256:12,12 257 | 143:2 148:3 | 177:24 257:17 |
| oral 100:18 102: | owe 103:19 | 258:5 260:6,9,14 | 149:14 166:5,6 | passage 143:10 |
| order 16:10 23:22 | Ower 116:1,2,4 | 260:17 261:1,3 | 166:17 168:24 | 161:24 258:11 |
| 24:9 58:1 60:17 | owner 16:14 | 263:7,10,11,14 | 182:11 183:8 | passed 78:17 |
| 84:22 85:24 | 17:18 27:1,11 | 263:23 264:8 | 185:1,13 194:2 | 114:16 |
| 101:15 126:24 | 40:18,22 43:9,18 | pages 15:2 19: | 198:12 204:7 | passing 60:1 |
| 156:1 212:22 | 198:18 199:23 | 69:20 80:3 | 209:4 237:12 | passionate 136:3 |
| 249:23 251:10 | 206:21 211:10 | 220:12,12 | 239:7 242:6,21 | Pastin 162:18,18 |
| 266:15 | 246:11,13,21 | 221:13 | 244:3 246:11,15 | path 148:20 |
| ordinarily 251:6,6 | 247:1 | paid 114:7 156:13 | 246:19 254:8,20 | pause 99:3 109:7 |
| organization 4:19 | owners 16:9 31:19 | Palatine 125:19 | 261:5,24 264:12 | 179:17 |
| 112:16 125:20 | 145:3 174:3 | 147:22 | 264:19 265:17 | paused 270:18 |

L.A. Court Reporters, L.L.C.

312-419-9292

| pay $127: 13,14$ | performing 247:5 | phrase 85:5 264:2 | plan 15:22 16:3 | play 152:16 |
| :---: | :---: | :---: | :---: | :---: |
| 137:12 146:2 | period 95:13 | physical 84:15 | 16:10,20 23:13 | players 177:19 |
| 157:15 168:7 | 156:8 180:18 | physically 102:1 | 28:1 105:1 | plays 253:23 |
| 174:8 242:10 | 202:8 244:22 | physician 106:10 | 127:16,17 | please 9:13,21 |
| payment 256:8 | 245:5 | pick 76:12 148:8 | 145:10,13,16 | 28:15 34:24 |
| Payne 231:7 | periods 96:16,21 | 156:5 181:4 | 147:8 164:1 | 36:7 37:3 38:8 |
| PCBs 154:24 | 96:23 | picturing 58:20 | 166:10 215:14 | 40:10 45:9 63:6 |
| penalties 155:7,21 | periphery 174:19 | pie 13:7 | 215:15 233:15 | 65:18 68:20 |
| penalty 156:11 | permanent 47:2 | piece 62:14,16 | 233:19,21,22 | 101:2,13,17 |
| Pennsylvania | 142:21 215:21 | pies 13:10,10 | 234:3,4,7,9,12 | 102:4,6 111:17 |
| 147:23 | permanently 47:3 | piles 129:7,11 | 234:17 247:3 | 112:11 114:1 |
| people 32:4 43:2,8 | permeable 226:23 | Pilsen 172:1 | planet 111:4 | 115:14 119:11 |
| 43:17 45:11 | permissible 251:3 | pipe 228:24 229:2 | Planning 113:24 | 119:15 130:12 |
| 61:15,18 62:2,13 | permit 55:13 | pipes 140:23 | plans 22:19 35:4 | 134:5 140:6 |
| 62:17,19,23 | 206:16 246:14 | pit 172:19 216:18 | 113:15 161:13 | 146:19 147:19 |
| 63:12 101:12 | 247:3 | pits 142:6 173:10 | plant 15:19 50:23 | 150:21,24 |
| 104:19 107:21 | permits 52:9 53:6 | place 11:6,13,16 | 51:20 59:9 | 151:11,14 |
| 108:13 109:1,11 | 55:13,14 | 11:18,19 12:20 | 108:11 112:22 | 159:19 162:22 |
| 109:21 112:20 | permitting 42:14 | 28:16 32:15 | 112:24 116:12 | 168:14,17 183:8 |
| 115:3 116:23 | 42:15 199:11 | 33:20 35:3,9,17 | 117:15 130:16 | 198:4 221:4,17 |
| 120:7 121:3,21 | persist 109:18 | 36:2 47:5 | 130:18 131:22 | 221:22 236:17 |
| 122:7,8,12,14,18 | persistent 130:18 | 103:13 104:7,8 | 140:17,20 144:2 | 248:16 249:3 |
| 123:4,8,19 124:5 | 130:24 | 106:24 108:12 | 154:13,17 | 252:10 260:16 |
| 133:2 136:4 | person 54:24 78:7 | 109:23 122:15 | 155:16 164:22 | 263:17 264:6 |
| 137:16 138:14 | 100:19 107:18 | 125:3,10 126:3,7 | 166:13 167:19 | 266:12 |
| 139:6,13,17,23 | 152:22 174:12 | 126:9 131:7,11 | 168:5,23 169:3 | plenty 70:15 |
| 143:17 146:19 | 251:22 | 135:6 141:9 | 171:4 172:2 | 107:15 |
| 149:10 151:24 | personal 118:11 | 161:14 167:15 | 173:1,6 174:23 | plots 111:20 |
| 152:5,11,12,20 | 141:4 152:21 | 175:4,11 196:20 | 195:12 204:20 | plus 96:9,10 169:7 |
| 152:22 153:13 | 161:1 | 203:11,13 225:3 | 204:22 216:24 | PO 2:9 |
| 154:22 155:1,22 | personally 211:19 | 225:6 239:22 | 217:3,16 235:16 | point 22:12 64:11 |
| 156:10,13,23 | perspective 52:16 | 240:14 | plantings 177:8 | 86:19 129:6 |
| 157:2,7,14 | pertains 24:13 | placed 63:19 | plants 48:7 49:23 | 142:9 157:12 |
| 164:17 184:3 | Peterson 144:20 | 64:17 65:12 | 50:11 51:4 52:7 | 180:2 181:22 |
| Peoria 102:15,18 | 144:21,22 | 74:23,24 167:8 | 53:4,16 55:11 | 186:7 188:23 |
| percent 11:11,15 | Petit 119:10,16,17 | 210:11 211:1 | 102:22 114:15 | 195:21 200:17 |
| 11:19,21 12:15 | 119:24 | 245:20 251:16 | 114:20,22,23 | 223:17 262:3,11 |
| 27:21 111:4 | Petite 119:15 | placement 74:19 | 118:8 125:23 | 270:8 |
| percolating | petitioners 264:3 | places 32:24 | 129:8 133:10 | pointed 63:21 |
| 133:14 | petitions 114:9 | 108:13 122:19 | 144:6 145:18 | 64:8 |
| perfect 73:20 | Ph.D 132:15 | 214:8 | 146:22 155:1,2 | pointing 165:4 |
| 143:15 | phase 161:12 | plain 129:3 | 160:1 163:11,15 | points 49:6 |
| performance | phone 101:5 | Plaines 46:4 | 168:1 204:4,16 | poised 114:18 |
| 28:20 | 112:7 | 104:20 105:2 | 261:24 264:12 | poison 128:10 |
| performed 194:19 | phonetic 140:11 | plains 167:5 | plastic 199:7 | 158:24 173:16 |

L.A. Court Reporters, L.L.C.

312-419-9292

| poisoned 103:8 | 170:10,17 | population 155:20 | potential 29:12 | pre-filed 6:22 7:4 |
| :---: | :---: | :---: | :---: | :---: |
| poisoning 161:6 | 175:17 177:18 | 156:12 | 41:10 74:19 | 9:17,20 10:1 |
| 173:14 | 178:7 192:12 | port 41:11 | 158:9 160:14 | 15:3 17:6 19:2 |
| poisonous 102:20 | 196:7 197:3 | portable 217:18 | 186:19 203:6 | 19:15 21:16 |
| poisons 109:15 | 209:2 218:23 | portion 17:13 | 207:4 208:16 | 26:16 37:7,15,23 |
| 128:13 144:13 | 253:9 258:12 | 62:21 95:6 | potentially 96:10 | 42:21 46:9 |
| 154:22 | 266:20 270:5 | 100:16 101:18 | pounds 115:6 | 50:10 64:24 |
| policies 149:1 | pond 11:21 22:11 | 101:21 178:19 | pour 49:1 | 69:23 72:7,9,12 |
| Policy 4:6,15,19 | 22:20 23:13 | Portland 207:18 | poured 230:1 | 72:22 77:1 80:2 |
| 205:16 229:18 | 31:17 35:10 | pose 111:12 261:8 | powder 155:15 | 81:12,14 180:5 |
| 241:22 267:4 | 36:13,14 126:22 | 265:23 | power 15:19 | 180:10 196:15 |
| political 125:20 | 144:2 183:6,11 | posed 205:19 | 41:12 59:9 68:2 | 197:10 198:2 |
| pollutants 60:18 | 183:14 196:4 | 209:24 261:14 | 68:3 102:21 | 231:1 232:3,3,4 |
| 115:11 146:14 | 204:14 223:4,8 | 262:5,14 267:10 | 108:11 125:23 | 232:7,8,9,15 |
| 151:2 174:1 | 223:19 233:16 | position 53:14 | 133:10 140:17 | 233:3 241:24 |
| 176:10 | 233:20,23 234:1 | 94:15,22 97:2,7 | 140:19 144:2,5 | 243:4 244:18 |
| pollute 103:14 | 234:3,5,8,12,16 | 97:10 238:6 | 150:6 152:4,4,10 | 260:6,9,17,21 |
| 115:6 165:16 | 234:20,24 235:5 | positive 190:13 | 153:8 154:13,16 | 261:1 265:15 |
| polluted 120:10 | 235:12,23 236:3 | possibility $41: 14$ | 160:1 163:11,15 | 267:18 268:4 |
| 151:4 | 238:16,24 242:5 | 216:15 247:21 | 167:19 168:1,23 | pre-project 57:16 |
| polluters 133:1 | 242:11 244:24 | possible 19:18 | 173:5 174:23 | 57:22 58:1 |
| 160:4 168:7 | 245:6 | 58:3 60:24 | 195:12 204:22 | preamble 203:9 |
| polluting 113:22 | ponds 12:5,6,8,13 | 131:4 135:15 | 216:24 217:3,15 | 207:23 |
| 114:19 137:9 | 12:14,16,20 | 136:11 150:12 | 235:14,16 | precious 144:15 |
| 142:7 178:3 | 35:16 104:5 | 151:11 153:22 | 261:24 264:12 | precipitation |
| pollution 1:1,10 | 111:14 126:4,10 | 159:5 160:15 | powering 140:22 | 44:13 |
| 8:19 17:5,16 | 126:18 130:22 | 169:22 170:4,7 | PowerPoint 9:23 | precise 129:1 |
| 34:16 38:19 | 130:23 133:21 | 178:10 217:21 | powers 257:14,16 | 206:15 |
| 43:10,19 71:12 | 143:16,23 | 221:11 | Powerton 80:20 | precision 128:15 |
| 75:19 100:3 | 144:10 150:23 | possibly 23:2 | 180:8 | precluded 242:15 |
| 103:4 105:8,18 | 154:15,16 | 185:24 216:22 | PPE 137:4,9 | predates 53:18 |
| 107:4 114:24 | 161:18,20 173:9 | post 15:22 16:20 | 145:11 167:14 | predict 98:7 |
| 115:15 116:14 | 195:17,18 | 17:21 | practical 65:5 | predictions 182:1 |
| 116:16 117:8,13 | 200:23 233:19 | post-closure | 216:7,9,12,16 | predictive 86:1 |
| 118:1 122:10 | 234:10,16 235:2 | 244:22 245:5 | 245:13 | 98:1,14 |
| 127:8 128:3,4 | 236:7 237:23 | post-combustion | practice 54:4 69:8 | predominant |
| 129:13,24 | 239:18 248:10 | 53:7 | 95:7 193:16 | 203:10 |
| 131:14,21 | 248:22 249:13 | post-hearing | 203:3 | prefer 30:24 |
| 136:13 137:12 | 261:5,7,15 | 251:7 262:10 | practices 80:1 | preferred 33:17 |
| 137:14 140:20 | 265:17,23 | postclosure 95:15 | 176:14 | premature 109:17 |
| 141:3 142:2 | poor 123:20 | 96:10 | Prairie 101:23 | prematurely |
| 144:6 145:7 | 134:13 153:12 | posted 10:18 17:2 | 112:21 164:21 | 108:18 |
| 159:22 160:8,23 | poorer 173:18 | 17:10 28:2 | 172:19 173:11 | preparation 267:7 |
| 162:1 163:21 | poorest 152:6 | potable 245:3,9 | pray 147:7 | 267:12,18 268:4 |
| 164:9 165:1,20 | populated 131:19 | 245:20 246:1 | pre-31:17 | prepare 46:1 |

L.A. Court Reporters, L.L.C.

312-419-9292

| prepared 232:13 | Pritzker 146:5 | 32:13,19 38:20 | 238:5,17 239:21 | 38:23 58:7 |
| :---: | :---: | :---: | :---: | :---: |
| present 10:9 | proactive 127:17 | 44:14 76:6 86:9 | 252:22 253:1,5,7 | 66:20,21 70:21 |
| 30:24 33:18 | proactively 30:20 | 87:13,17 97:24 | 253:12,12,14 | 73:8 78:11,24 |
| 38:5 77:9 | probably 16:16 | 107:1 108:7 | 255:19,20,20 | 81:2 83:14 |
| 100:12 101:24 | 36:5 41:1 53:13 | 132:19 162:4 | 256:4,4,5,17 | 86:16 89:18 |
| 138:19 196:14 | 54:3,23 60:6 | 164:12 166:5,19 | programs 35:24 | 90:13,18 95:12 |
| 202:15 | 67:2 121:16 | 176:24 186:8 | 36:2 79:19 | 100:7 116:11 |
| presentation 9:23 | 172:6 232:21 | 198:22 199:12 | 134:8 237:2,5,18 | 117:6,9 186:23 |
| presented 23:16 | 250:11 | 202:13 208:15 | 243:14 252:20 | 187:2,4,9 189:6 |
| 33:19 112:22 | problem 7:2 23:5 | 240:8 | 252:24 253:11 | 189:12 194:23 |
| 239:16 240:4 | 32:9 33:24 | processes 48:13 | 254:3 255:23 | 194:24 196:8 |
| 243:9 | 40:14 76:20 | 50:15,16 118:13 | progressed 108:21 | 206:1 209:1 |
| presently 163:20 | 141:2 149:14 | 165:12,15 | prohibiting | 211:6 214:7,12 |
| preserved 246:1 | 157:24 163:1 | 186:17 | 245:19 | 244:7 250:9 |
| preserving 133:7 | 167:12 169:20 | produced 175:10 | project 58:9,11 | 254:8,20,24 |
| president 102:18 | 173:20,22 178:2 | producing 15:20 | 176:4 256:19,20 | proposes 187:7 |
| 112:14 | 178:3 221:19 | product 125:23 | projects 132:22 | 255:11 |
| press 26:2,5,8 | problems 123:21 | 161:15 176:4 | 254:2 | proposing 133:11 |
| 112:8 | 154:19 | products 125:22 | promises 118:12 | 185:7 242:4 |
| pressing 101:2,4 | procedural | 199:8 222:21 | prompt 159:7 | protect 103:5 |
| 112:6 | 270:13,18 | professional 39:14 | promulgated | 104:22 110:3 |
| pretty 138:10,10 | procedures | 65:22 193:14,16 | 261:24 264:13 | 113:13,24 114:2 |
| prevent 43:8,17 | 118:12 | 236:22 | promulgating | 115:16 123:19 |
| 141:7 146:6 | proceed 10:12 | professionals | 239:20 | 126:24 132:20 |
| 150:22 202:2 | 34:24 36:6,7 | 118:17 196:14 | pronounce 153:10 | 134:11,15 |
| prevention 17:16 | 38:8 50:24 | 199:9,10 | proof 201:4 | 136:17 137:11 |
| 106:11 126:21 | 112:12 130:12 | professor 111:2 | proper 106:16 | 137:13 139:13 |
| 162:1 253:9 | 134:6 140:7 | 164:8 | 167:14 | 145:7,10,14,16 |
| 258:12 | 147:20 157:24 | profit 121:24 | properly 43:1,10 | 146:17 147:9 |
| prevents 136:11 | 159:19 162:22 | 122:3 127:16 | 43:19 61:14,17 | 150:16 155:13 |
| 246:23 | 168:15,18 | 137:16 160:5 | 61:24 106:14 | 156:14,15,22 |
| previous 13:2 | 241:16 | profited 137:12 | 156:6 160:10 | 157:3 160:16 |
| 50:20 181:21 | proceeded 72:14 | profiteering | 161:18 215:17 | 162:8 163:10 |
| 229:19 237:1 | proceeding 22:5 | 136:12 | properties 171:8 | 169:24 178:10 |
| 258:5 | 47:24 55:20 | profits 115:1 | 176:18 201:18 | 190:15 |
| pride 146:4 | 66:23 71:4 | 151:14 | property 168:6 | protected 109:2 |
| primarily $27: 13$ | 81:15 100:6 | program 48:15 | prophet 153:6 | 113:2,3,4,5 |
| primary 12:11 | 237:1 238:7 | 55:11 60:11 | proponent 237:20 | 143:15 161:21 |
| 27:16,17 184:9 | 239:11 242:16 | 67:8 79:10,11 | proposal 38:16 | 167:12 |
| principles 246:3 | 262:7 | 82:20 83:1 86:5 | 88:7 190:5 | protecting 103:16 |
| prior 45:20 | proceedings 1:8 | 92:23 99:1 | 248:8,13,14,18 | 107:24 114:1 |
| 194:17 224:23 | 179:22 251:15 | 185:14 186:18 | 249:9 | 146:8 162:6 |
| 244:21 246:8 | 258:23 272:7,10 | 187:16 188:7,12 | proposals 237:22 | protection 2:7,12 |
| priorities 112:19 | process 13:4 | 190:4,5 194:3 | 250:13 | 33:4,7,14 38:18 |
| priority 131:17 | 15:12 16:13 | 237:6,7,7 238:3 | proposed 1:5 | 39:1 89:22 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 90:23 112:20 | 22:24 145:10 | 230:2,3,4 | 104:24 134:20 | 190:10 198:3,6,8 |
| :---: | :---: | :---: | :---: | :---: |
| 113:12,15 | 146:16 236:13 | purpose 43:7,16 | 134:21 135:1,4 | 198:10,21 |
| 118:24 123:18 | 236:15 243:14 | 57:21 60:14 | quarrying 104:17 | 199:20 200:6,18 |
| 125:21 128:4 | 251:19 | 89:6,13 90:19 | quarter 189:13,19 | 202:19 203:15 |
| 129:13,22 131:5 | provision 18:10 | 202:1 250:1 | quarter- 217:19 | 203:19 208:2 |
| 133:17 136:23 | provisions 17:11 | 254:4 256:2 | quarterly 66:13 | 209:1,2,17,18,24 |
| 141:5 145:11 | 84:19 86:10 | purposes 187:12 | 95:9 96:7 98:21 | 210:5,8,9,15 |
| 165:14 171:21 | 87:9 264:19,23 | 202:7 213:2,22 | 181:18 | 212:1 214:2 |
| 207:7 238:4 | 266:2 | pursuant 17:20 | query 104:10 | 215:5 216:4,5 |
| 239:9,20 257:12 | proximity 31:14 | 66:15 73:3 | question 17:5 | 223:3,13,14 |
| 261:18 | PSG 172:20 | 246:15 | 18:2 19:1 26:15 | 224:17 225:18 |
| protections 113:8 | public 17:16 30:8 | pushing 121:1 | 28:7,9,13,14 | 228:18 230:23 |
| 113:10 135:12 | 52:8 53:6 70:23 | put 84:23 87:15 | 29:3 31:3 32:21 | 231:1 236:12 |
| 135:15 136:9 | 71:2,6,13 73:2,3 | 119:24 122:7 | 35:11 36:5,12 | 241:23 242:1,13 |
| 137:8 142:15,21 | 73:7 76:9,13 | 123:22 125:9 | 40:9 41:2,3,5,6 | 242:14 243:12 |
| 151:7 166:8 | 99:5 100:16,19 | 126:9 135:6 | 42:17,18 43:3,24 | 244:3 247:24 |
| 168:9 194:4 | 100:23 101:9,18 | 150:13 157:6 | 44:1,3,7 45:13 | 248:3,4,15 |
| protective 155:6 | 101:20 102:1,7 | 187:22 206:9 | 45:14 46:9 | 252:15,19,23 |
| 196:16 208:13 | 106:21,24 107:9 | 215:11 216:24 | 47:13,17,19,24 | 254:11,13,14,18 |
| 209:15,23 239:4 | 108:2 113:1 | 223:20 | 48:5 49:15,17,20 | 255:6,6,9,12 |
| proud 105:24 | 119:1 121:13 | putting 122:15 | 50:10,22 51:8,24 | 256:11,13,15 |
| 107:10 138:8 | 128:13 135:15 | 124:2 | 52:1,3 53:2,3 | 257:4,8 258:4,8 |
| 148:12 | 142:21 164:1,10 |  | 54:11 55:9 | 260:8,20,24 |
| proven 203:6 | 165:10 166:5,19 | Q | 60:15 61:7,10,20 | 261:3,10 262:6 |
| 208:15 | 175:6 178:10,19 | qualifications | 61:22 62:11,21 | 263:6 264:7 |
| provide 11:1 18:4 | 179:3 180:19 | 252:7 | 62:22 63:16,18 | 265:21 266:1,12 |
| 29:4 63:10 87:7 | 213:2,20,23 | qualified 107:16 | 64:16 65:11,11 | 271:1 |
| 102:24 135:2 | 216:14 221:18 | 250:8,17 | 65:17,18,22 66:1 | questioned 56:10 |
| 137:9 152:9 | 223:23 233:14 | qualities 148:15 | 66:3,5,18,24 | 231:13 |
| 182:1 187:5,5 | 249:24 270:24 | quality 31:16 | 67:2,15,16,21 | questioner 82:19 |
| 194:4 254:6 | 271:3,8 | 57:17 106:8 | 68:5,7,17,21,22 | questioning 14:13 |
| 263:5 267:8,9,22 | publicly 10:19 | 115:16 116:17 | 69:2,21,23,24 | 78:2 81:4 93:2,5 |
| 268:9,14 | 11:8 17:21 18:5 | 118:9 119:4 | 70:5,9 74:11 | 180:4 181:10 |
| provided 10:15 | 18:9 22:17 28:5 | 129:21 135:16 | 78:6,8,22 79:20 | 205:17 229:19 |
| 17:23 18:21 | 177:13 220:15 | 136:17 160:3 | 79:23 80:5,6 | 236:11 239:11 |
| 26:10 28:1,4,21 | 221:13 240:10 | 215:15,20 | 82:14,23,23 83:4 | questions 6:8,24 |
| 96:13 167:20 | pudding 201:4 | 234:14,22 235:1 | 83:9,22,24 84:19 | 7:12,15,16,18,20 |
| 203:20 239:8 | pull 82:7 | 244:23 246:10 | 84:22 86:10 | 7:22,23 8:1,2,5 |
| 249:24 251:5,6,7 | pump 206:10 | 246:18 | 89:5,8,9 90:2,21 | 8:6,9,10,14,15 |
| 252:5 | 215:3 | quantification | 91:21 92:1,8,11 | 8:20,21 11:4 |
| provider 112:22 | pumped 105:1 | 189:19 | 92:17 93:7,18,19 | 14:5,6,8,10,12 |
| provides 17:19 | pumping 182:21 | quantified 193:20 | 93:22 94:7,19 | 14:16 15:2 |
| 27:8 201:17,19 | 182:24 206:7 | quarry 69:22 70:1 | 97:1,12,13 | 29:15,20,21,23 |
| 217:9 | pumps 104:24 | 70:20,22,23 | 181:16 183:8 | 34:3,4,7,8,12,13 |
| providing 13:24 | 105:1 206:18,23 | 71:19 104:6,7,14 | 184:4 186:12 | 34:17,18,20,22 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 34:23 36:18 | 266:19,21,23 | 180:2 | 55:24 61:20 | recollection 24:18 |
| :---: | :---: | :---: | :---: | :---: |
| 39:21,24 40:1,6 | 267:1,9 268:19 | raised 50:12 56:9 | 62:8 64:13 65:1 | recommend 39:5 |
| 44:19,23 45:10 | 268:21 269:3,5,7 | 70:24 71:4 | 68:8 70:6 83:3 | 75:3 148:19 |
| 46:9 48:10 50:6 | 269:9,10,13,15 | 168:22 264:3 | 84:10 89:7,7 | recommendation |
| 50:11 51:18 | 269:17,18,20,21 | raises 50:14 | 184:11 201:13 | 129:5 |
| 54:3 63:16 65:8 | 269:23 270:1,3,4 | raising 51:12 | 212:3 222:1 | recommendations |
| 65:19 68:3 | 270:6,7 | ran 156:19 | 223:10 224:19 | 129:2 |
| 69:22 70:18,20 | quick 89:3 146:6 | Randolph 1:13 | 244:13,14,19 | recommends |
| 70:21 71:19 | 205:22 215:5 | randomly 211:10 | 246:6 260:22,23 | 48:16 |
| 72:7,9,12,22 | 223:18 258:18 | range 12:7 128:12 | reading 108:24 | record 6:23 7:5 |
| 74:4,7,8,10,19 | quickly 23:2 | Rao 2:5 8:21,24 | 183:3 222:4 | 9:22 32:6 47:22 |
| 75:6,9,10,13,14 | 173:8 196:18 | 34:16,18 75:20 | 249:2 | 48:6 52:8 53:6 |
| 75:17,18,20,21 | 211:6 249:2 | 75:21 192:13,14 | reads 153:9 | 64:15 68:8 70:7 |
| 75:23,24 77:11 | quite 31:24 76:17 | 218:24 219:1 | 213:10 249:5 | 72:1 81:15 |
| 77:14,15,17,18 | 87:18 92:11 | 225:11,12,16 | ready 76:21 77:11 | 101:20 180:13 |
| 80:9,12,18,21 | 97:16 182:12 | 228:12,16,19 | 181:1 233:9 | 212:3,8,22 |
| 81:8,9,13,14,22 | 217:21 | 266:21,23 270:6 | 260:10 | 213:18 219:20 |
| 81:23 89:2 99:4 | quotation 222:1 | 270:7 | real 175:18 | 220:15 221:17 |
| 180:5,10 181:5 | 260:20 | rapid 117:16 | 205:22 229:13 | 242:18 270:12 |
| 181:13 183:24 | quote 61:10 64:11 | rapidly 108:20 | realize 53:13 | 270:15,17,20 |
| 184:19 188:18 | 212:14 214:13 | 173:10 | 163:17 | record/informat... |
| 191:16,19,22 | quoted 236:8 | rarely $13: 15$ | really 47:3 58:7 | 258:9 |
| 192:1,5,6,10,11 | quotes 61:11 | 165:19 | 69:2 71:7 86:2 | recorded 10:18 |
| 192:13,14,16 | quoting 94:2 | rate 13:5,8 30:9 | 138:17 143:1 | 101:19 102:4 |
| 193:19 197:7,17 | 222:11 | 30:18 32:3 | 175:15 176:17 | recording 256:2 |
| 197:18,23 205:8 |  | 206:7 | 247:21 | recordkeeping |
| 205:19,21 207:9 | R | Ratliff 160:19,20 | rearrange 241:3 | 252:21,24 |
| 210:7,18 214:10 | R 1:12 2:1,14 3:1 | 160:21 | reason 24:22 | 253:13 254:4 |
| 218:2,5,7,9,10 | 4:1 5:1 | raw 140:21 | 221:8 | records 253:17 |
| 218:13,14,17,18 | R20-19 1:4 6:3 | RCRA 261:22 | reasonable 59:14 | 254:1 255:22 |
| 218:21,22,24 | 100:11 | 264:11 | 159:7 195:24 | recover 32:9,11 |
| 219:1,3 225:10 | radioactive | re-ask 65:11 | 196:2,22 199:3,4 | recovery $13: 1,5,8$ |
| 225:11 229:16 | 144:14 171:8 | 66:18 68:5,20 | 199:11 | 13:16 27:21 |
| 230:9,11 231:1 | radius 38:16 | 70:5 | reasons 27:5 49:3 | 30:18,18 32:3,7 |
| 235:20 236:8 | rail 41:17 42:6 | re-asked 65:19 | 238:8 | 32:17,24 175:7 |
| 240:18 241:2,8 | 113:22 167:15 | re-evaluated | Rebecca 160:19 | 193:23 195:1,2 |
| 241:10,18 242:3 | 216:10,10,13,19 | 186:19 | 160:20 | recruiting 177:9 |
| 243:3,6 247:21 | 216:21 217:1,1 | re-evaluation | received 72:11 | recycle 150:11 |
| 252:10 255:4 | 217:12 | 48:15 | recess 99:8 | recycled 195:14 |
| 257:5 258:15,19 | railcar 216:22 | re-raise 47:18 | reckless 161:5 | 226:7 |
| 259:2,4,6,8,9,11 | rain 141:8 150:8 | reach 210:12 | recognize 131:17 | recycling 22:20 |
| 259:12,15,16,18 | 172:6 | 211:3 | recognized 123:23 | 23:14 |
| 259:20 260:4 | rainstorms 144:9 | reaches 256:19 | recognizing 97:18 | Red 163:2 |
| 261:19 262:5,14 | raise 71:17 103:10 | reaching 176:22 | 97:23 98:17 | reduce 150:10,11 |
| 262:20 263:2 | 113:11 122:20 | read 47:21 54:18 | 230:24 | 185:16 206:5,24 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 207:6 210:12 | regulate 144:13 | 52:24 53:1 73:2 | remaining 94:17 | 203:11,21 209:9 |
| :---: | :---: | :---: | :---: | :---: |
| 211:2,12 | 242:4 | 92:22 97:8 | 101:8 175:12 | 210:4 225:5 |
| reduced 177:4 | regulated 13:9,14 | 107:4 210:14 | remains 18:17 | remove 31:15 |
| reducing 227:16 | 94:4 194:24 | 235:20 237:3,21 | 102:20 103:13 | 44:9 54:4 64:13 |
| reduction 227:13 | 238:7 254:9,22 | 237:22 246:5 | 131:8 | 115:20 137:13 |
| refer 23:18 25:11 | regulation 19:9 | 247:10 251:21 | remand 264:23 | 151:3,4,9 160:9 |
| 61:10 66:5,6 | 63:11,12 93:3 | 262:8 | 266:2 | 199:2 203:23,24 |
| 190:3 216:7 | 127:7 163:16 | relates 28:8 129:6 | remanded 264:19 | removed 44:11 |
| 221:13 | 191:5 250:9 | 176:14 | 266:14 | 126:13 151:2 |
| reference 18:2 | 264:21 266:4 | relating 146:2 | remedial 88:23 | 154:14 155:4,5 |
| 22:15,17 23:1 | regulations 60:9 | relation 262:5 | remediate 43:10 | 155:14,21 |
| 64:24 65:7,8 | 63:2 89:15,23 | relative 54:23 | 43:19 247:5 | 157:16 196:19 |
| 223:21 | 90:17,24 91:14 | 227:1 239:13, | remediated 58:15 | 196:21 202:9,19 |
| referenced 29:2 | 115:13 122:13 | 253:16 254:1 | remediates 246:24 | 202:24 223:9,15 |
| 29:11 180:5 | 135:14 137:2 | 255:22 263:14 | remediation 59:3 | 224:20,21,22 |
| 182:8 271:4 | 149:10 164:2 | relatively 59:7 | 237:3,6 246:12 | removes 202:13 |
| references 23:11 | 213:9 | 171:3 226:24 | 252:21 253:1,7 | removing 113:7 |
| referencing 22:16 | regulators 35:9 | release 22:18 26:2 | 253:12,14,22 | 136:24 145:21 |
| 51:2 263:8 | regulatory 3:23 | 26:5,8 184:24 | 255:19 256:4,16 | 146:9 184:9 |
| referred 91:3 | 8:4 12:22 19:9 | 185:1,2,3,3,4,5 | remediations | rendering 236:2 |
| 200:14 219:10 | 19:12 20:11,12 | 185:19,20,23 | 165:15 | repeat 25:7 31:2 |
| 256:5 | 21:2 22:5,9 | 186:2,10 188:13 | remedy $88: 10$ | 43:14 62:20 |
| referring 10:14 | 24:10 26:7,21 | 189:8 246:8,12 | 106:20 | 63:4,6,7 80:10 |
| 24:19 29:10 | 30:22 34:2 35:8 | 246:16 247:6 | remember 76:17 | 88:14 94:18 |
| 30:13 68:18 | 35:14,18,22 36:2 | released 177:15 | 93:10 115:14,19 | 142:17 168:4 |
| 79:6 84:24 | 75:8 93:8 | releases 246:23,24 | 162:7 181:14 | 183:8 208:7 |
| 220:13 257:11 | 206:15 218:12 | relevance 48:4,23 | remind 30:16 | 209:17 210:22 |
| 261:7 263:18,24 | 225:6 237:2,19 | relevant $32: 8$ | 146:11 | 223:12 237:11 |
| 265:3,22 | 237:22 238:22 | 47:24 48:2 49:4 | reminder 123:7 | 248:15 249:3 |
| refers 93:19 | 243:14 250:6 | 49:19 50:4 | 147:4 | 265:12 |
| refuse 156:1 | 251:15,15,22,23 | 52:15 73:12 | remotely 192:23 | repeating 127:11 |
| Regan 134:1 | 259:14 262:12 | 97:9 | removal 12:13,15 | rephrase 31:4 |
| 141:18,19 | 269:23 | reliable 11 | 12:17 13:13,14 | 35:11 92:8 |
| regard 200:5 | rehabilita | 188:12 | 19:7 26:7 27:23 | 82:20 190:1 |
| regarding 74:19 | 174:4 | reliance 146:5 | 30:12 32:12,14 | 253:19 |
| 92:17 93:20 | Reh | relied 200 | 33:1,5 39:17 | rephrasing 63:8 |
| 118:23 193:19 | reimbursement | reload 217 | 40:16 44:5,14,17 | replenished |
| 194:6 198:11 | 254:5,9,21 256:3 | relocate 229:1 | 65:3 111:21 | 222:23 |
| 236:7 240:19 | 256:24 | relocating 78:1 | 113:21 136:19 | replicate 98:12 |
| 262:18,23 263:1 | reined 128:16 | rely 74:21 75:3 | 151:6 159:5,10 | report 1:8 17:22 |
| regardless 190:22 | reinforces 175:13 | relying 229:12 | 165:10 195:11 | 24:23 29:8 |
| regards 42:17 | relate 25:2 149:10 | remain 94:24 | 196:9,22 197:5 | 81:10 83:7 |
| 94:9 118:13 | related 22:10 | 141:10 246:2 | 198:16,16,22 | 177:14 180: |
| 119:4 | 39:10,15 49:10 | remainder 23:3 | 200:10 201:21 | 234:15,23 235:2 |
| regular 10:20 | 49:15,17 51:17 | 200:21 | 202:12,18,23 | 235:4,5,10,12,13 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 235:15 | 195:21 196:21 | 142:4 148:12 | 243:12 244:3,3,4 | resume 99:4,5 |
| :---: | :---: | :---: | :---: | :---: |
| reported 18:11 | 197:2 204:11 | 158:3,3 160:21 | 247:20 250:4 | retain 215:1,1 |
| 235:7,10 272:6 | 206:12 217:8 | 174:16 | 252:15,18,18 | retained 250:22 |
| reporter 1:11 6:17 | 226:8 234:17 | residential 104:15 | 255:6,14 256:12 | retired 138:2 |
| 6:18 9:12 25:5,8 | 240:7 247:16 | residents 68:1,3 | 257:10 258:5,7 | 154:21 164:22 |
| 37:3 41:24 63:3 | requirement 29:5 | 104:9 105:7 | 260:7 261:13 | 172:16 173:1 |
| 101:19 102:4 | 38:16 87:24 | 115:18 118:10 | 263:5 | retirement 103:12 |
| 119:22 193:5 | 95:7,12,17 96:8 | 118:13,14,18 | responses 15:1 | retroactive 266:11 |
| 201:14 208:4,8 | 96:12 98:23 | 121:24 124:2 | 46:8 54:10 55:9 | 266:15 |
| 231:9 237:11,13 | 145:9 195:23 | 131:20 142:13 | 63:16 66:6,6 | retroactively |
| 239:24 248:23 | 196:8 206:16 | resides 118:7 | 83:13 91:3 | 248:9,20 249:11 |
| 249:2,6 258:17 | 228:10 | residual 174:22 | 214:9 235:19 | 250:10 |
| 265:10,12 | requirements | residuals 1:5 39:2 | 236:8 260:6 | retrofit 194:3 |
| 270:11 272:5 | 10:15 66:21,22 | 100:9 102:23 | 270:23 271:4 | retrofitted 193:24 |
| reports 18:12,15 | 67:9 73:7 78:11 | resistance 148:20 | responsibilities | 194:9,18 196:10 |
| 18:19,20 235:17 | 78:24 79:17,23 | resolve 180:11 | 138:3 | 196:19 227:18 |
| 240:12 | 84:16 88:24 | resonates 175:22 | responsibility | Retrofitting 39:18 |
| repositories 159:7 | 92:15,18,19,24 | Resource 245:3,9 | 108:4,6 110:9 | return 258:19 |
| represent 151:23 | 93:8 151:15 | resources 230:6 | 133:18 142:22 | 270:19 |
| representation | 187:5 211:13 | 236:1,6 | 152:4,11 163:24 | returned 245:15 |
| 11:22 | 244:4,6 252:21 | respect 41:5 119:3 | 177:23 253:22 | returning 271:1 |
| representati | 252:24 253:13 | 190:6 | responsible | reuse 22:20 23:13 |
| 202:16,21 | requires 60:11 | respectfully 196:7 | 126:24 137:14 | 150:11 194:2 |
| represented | 85:2 91:7 92:9 | respond 47:19 | 145:21 161:20 | revered 133:18 |
| 152:13 | 113:7 129:19,20 | 48:3 49:6 71:12 | 171:17 | Reverend 151:20 |
| representing | 163:24 194:8 | responded 28:17 | responsibl | revert 96:5 |
| 152:22 | 196:18 206:18 | 68:6 83:3 | 115:21 | review 16:1 35:4 |
| request 100:22 | requiring 115:20 | responders | rest 127:12 169:17 | 89:3 90:19 |
| 193:18 214:1 | 194:24 | 145:23 149:2 | restate 23:2 35:11 | 167:22 198:14 |
| 250:20 251:2 | reread 91:24 | responding 71:3 | 70:7 170:15 | 211:13 254:1 |
| requested 70:11 | resample 189:20 | 181:13 | 190:11 266:12 | 256:15,17,22 |
| 101:23 | resampling 83:8 | response 1 | restoration 177:8 | 257:1 |
| require 16:24 | research 118:17 | 17:4 18:3 26:23 | restore 115:16 | reviewed 26:5 |
| 33:15 42:12,14 | researching | 28:8,9,14 40:8 | 136:16 162:8 | 55:19,22 227:1 |
| 43:4 48:14 60:9 | 176:21 | 44:3,7 48:8 54:2 | 247:6 | reviewing 32:4 |
| 117:9 153:1 | reseller 150 | 54:3,11,14 61:9 | restores 246:24 | 89:1 253:23 |
| 174:3 195:15 | reserve 29:16 | 63:18 68:2 | restoring 107:24 | 256:21 |
| 196:2,22 197:5 | 205:5 | 82:18 83:12 | restrictions 33:3 | revised 129: |
| 199:5 201:6 | reservoir 140:1 | 84:1,2 91:5 | 113:8 | 226:15 |
| 204:7 227:8 | reside 118:19 | 48:16 182:9 | resubmit 72 | revision 198:15 |
| required 15:22 | resident 38:14 | 184:6,7 186:15 | result 30:21 | revitalization |
| 16:23 17:3,10 | 107:11,17 111:1 | 198:12 200:5,17 | 110:13 | 175:8 |
| 26:7 88:7 97:24 | 116:4 118:6,7 | 203:15,19 | resulting 43:11,20 | rgranho |
| 126:13 193:23 | 123:12 125:18 | 211:24 223:2,6 | results 126:18 | 2:17 |
| 194:5,18 195:2,4 | 128:6 130:15 | 225:17 240:18 | 235:7 | Richard 5:5 39:7 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 48:11 179:18 | 261:8 265:23 | room 1:13 37:1 | ruled 93:6,11 | 151:12,14 |
| :---: | :---: | :---: | :---: | :---: |
| 180:1 | risks 109:5 193:20 | 45:12 177:11 | 116:14 243:6,6 | 153:22 159:5 |
| ridiculous 171:11 | 194:20 261:14 | 241:4 258:18 | Rulemaking 1:4 | 161:14 162:5 |
| right 13:9 18:8 | risky 229:13 | Rosen 103:22 | 6:3 38:20 50:2 | 165:15 168:2 |
| 29:16 36:19 | river 45:17 46:2 | 112:2 | 51:7 70:12,12,16 | 169:13,21 170:4 |
| 41:9 42:16 49:8 | 96:20 98:13 | routed 204:21 | 70:17 71:11 | 170:7 178:9 |
| 63:22 64:2 | 104:20 105:2 | routine 44:17 | 73:2,5,9,12 | 197:2 199:16 |
| 87:23 88:19 | 108:9 120:8,10 | 76:17 | 80:13 81:19 | 211:6 227:8 |
| 99:3 103:2 | 140:15,16,16,18 | routinely 54:4 | 83:14,14 91:10 | 238:1,2,2,3,4,19 |
| 104:10 108:9 | 144:8,10 164:24 | rug 121:1 127:9 | 92:5 100:5,6,10 | 238:23 243:2,17 |
| 114:17 119:6 | 165:2 166:13 | ruin 144:9 | 108:7 114:14 | 243:20 244:12 |
| 128:14 132:15 | 167:3,4 168:4 | rule 15:21 16:11 | 132:19 136:11 | 244:14 254:20 |
| 132:20 138:11 | 172:4,7 173:8 | 16:21,24 17:11 | 137:7 148:17 | 268:16 |
| 139:12,15 | 174:19,22 176:8 | 18:7 33:15 | 149:13 150:1 | ruling 51:11 |
| 144:11 148:14 | 226:12 | 38:23 39:2 58:7 | 162:4 166:6 | 130:17 136:22 |
| 148:19,22 | rivers 4:20 101:23 | 62:5 66:16 | 195:9 201:6 | 251:2,20 |
| 149:16 150:19 | 102:23 103:17 | 67:10 71:9,10,14 | 206:2 228:11 | rulings 136:15,22 |
| 152:3 153:16,21 | 111:15 115:7 | 73:4,6,8 78:15 | 242:20 252:2 | 252:3 |
| 164:12 165:5,17 | 126:14,23 158:5 | 78:16 79:5,13,19 | rules 10:16 18:22 | Run 177:14 |
| 168:19 172:9 | 173:4,7,13 | 79:24,24 80:20 | 28:22 29:4 | running 104:23 |
| 177:22,23 178:5 | Road 4:2 104:15 | 81:1,2 82:21 | 35:21 51:15,18 | 144:16 |
| 178:13 182:22 | roadway 60:3,7 | 83:1 84:20,23 | 66:21,21 70:13 | runoff 172:7 |
| 183:12,19 184:7 | 216:14 | 86:11,13,13,16 | 70:21 78:11,24 | 177:3 |
| 189:21 199:22 | roadways 59:16 | 86:18 87:6,9,15 | 80:14 89:23 | runs 85:21 217:20 |
| 205:5 208:23 | 59:22 | 87:19 88:19 | 90:10,24 91:4 | rural 108:9 |
| 210:9 214:4 | rob 153:12 | 89:18 90:13,18 | 92:3,9 104:21 | 165:20 172:17 |
| 215:16,16 | robust 147:8 | 91:6 92:14 | 105:6,11 106:13 | RYAN 2:15 |
| 223:13 225:9 | rocket 217:23,23 | 95:12 101:17 | 107:5,22 111:5,7 |  |
| 243:21 256:6 | Rokoff 5:4 9:7,8 | 129:18 143:12 | 111:10 113:6,8,9 | S |
| 268:22 | 10:7 14:4,23 | 143:20,21 | 114:2 116:11,17 | S 2:1 3:1,20 4:1 |
| rights 153:12 | 15:8 22:23 24:9 | 145:17 147:9 | 116:21 117:6,9 | 5:1 |
| rise 11:20 | 26:24 34:20 | 150:21,24 166:8 | 117:22,24 | sacrifice 121:23 |
| risk 64:21 126:8 | 35:3 36:20 | 167:11 184:17 | 121:19 122:15 | safe 110:1 113:20 |
| 135:9 137:2 | Rokoff's 9:17,20 | 184:23 186:23 | 122:23 126:6,9 | 118:14 123:16 |
| 150:20 152:24 | 9:23 | 187:2,4,9,20,22 | 128:3,8,15,17,19 | 124:3 126:18,24 |
| 194:19 195:5,20 | role 108:4 110:7 | 189:6,12,22 | 129:12,17,19 | 145:12 146:15 |
| 200:8,13,18 | 253:23 | 194:5,8,8,23 | 130:1 131:6,10 | 147:3 149:3 |
| 202:13 207:22 | roles 131:4 | 195:4 196:11,18 | 131:13 133:10 | 151:7 159:5,10 |
| 208:3,10 209:6 | rollback 119:2 | 201:10,12 | 134:14,21,24 | 160:10 163:16 |
| 209:13,20 210:2 | rollbacks 135:12 | 203:10 207:23 | 135:2 137:15 | 165:10 168:3 |
| 219:9,10,14,17 | 143:22 149:9 | 211:8,13,20 | 138:21 139:3 | 172:9,10 |
| 219:19,23 220:8 | 168:9 | 213:5 214:10,13 | 141:6,8,10,13 | safeguards 145:6 |
| 221:14,23 | rolling 143:11 | 261:9 262:1 | 142:18,20 | safely 141:2 151:9 |
| 224:10 227:13 | 257:20 | 264:13,24 | 143:12,14,18 | 155:21 |
| 227:14,14,15,16 | Roman 66:4 | 265:24 | 150:15,18 151:6 | safest 125:22 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 146:17 | scatter 111:9,20 | 222:19 233:18 | 183:21 185:22 | 82:17 84:2 |
| :---: | :---: | :---: | :---: | :---: |
| safety 113:15,17 | scenario 95:2 | 238:13 251:11 | 258:16 | 88:15,18 184:8 |
| 115:11 119:4 | 200:13 202:6,16 | 260:8,16 263:17 | seeing 76:1 93:21 | 201:23 221:8 |
| 135:16 145:9,13 | 202:21 219:10 | 263:19 264:1 | 182:16,17,19 | 222:22 224:11 |
| 145:16 147:7 | scenic 165:2 | section 17:1,1,20 | 190:19,24 | 260:20,22,24 |
| 149:1 155:19 | schedule 13:23 | 22:10,14 23:6,9 | seek 31:5 254:4,21 | 264:22 265:1,2,5 |
| 156:15,16 157:3 | 38:21 159:8 | 29:8 39:17,18,18 | 256:3,7,23,24 | sentences 66:8 |
| 157:9 166:10 | scheduled 10:18 | 43:3 76:14 | seeking 213:19,19 | 212:4,12 |
| 171:19 207:14 | SCHIFF 2:14 | 89:10,18,22 | 254:9 | separate 176:12 |
| sake 258:17 | Schmidt 114:4,5,6 | 90:22 101:9,20 | seen 19:13 26:9 | September 1:14 |
| sale 18:10 | science 67:10,11 | 132:4 141:21 | 27:19 59:10 | 19:24 20:17 |
| Samantha 162:13 | 67:13 80:1 | 154:7 162:13 | 98:13 117:16 | 21:8,17 23:20 |
| 162:14 | 111:2 139:11 | 187:9 195:9 | 122:24 208:17 | 114:21 233:4 |
| sample 49:1 | 146:6 149:11 | 197:5 198:15 | seep 128:23 | series 198:10 |
| sampling 66:12,15 | 175:3 177:13 | 214:10,12 | seepage 140:22 | serious 70:24 |
| 96:7 189:14,15 | 195:4 207:13 | 222:10,20 | seeping 103:1 | 111:12,18 |
| 189:21 | scientific 152:20 | 224:11 228:4 | 161:10 | 169:14 261:8 |
| Santos 2:4 179:1 | scientifically $67: 8$ | 244:5,7 247:4,11 | seeps 158:10 | 265:23 |
| Sargent 39:8,15 | 79:10,21 | 257:10,11,14,23 | segment 101:8 | seriousness 108:5 |
| 193:14 | scientist 148:3 | 263:19,20 | segments 100:24 | 110:8 111:5 |
| sat 108:24 | scientists 151:12 | 266:10,14 | seismic 29:6 | serve 137:22 |
| satisfy 26:21 | scope 89:17 91:9 | sections 38:2 | 207:15 | 178:7 237:17 |
| saturated 140:22 | 92:21 97:3 | 39:12,16 | seldom 32: | services 254:6 |
| Saturn-fired | 251:9 | secure 159:6 | select 30:20 | 256:9,15,17,22 |
| 217:22 | Scott 157:19,19 | secured 158:11 | selected 13:15 | 257:1 |
| save 142:10 262:9 | 157:22,23 158:1 | 215:17 | 27:5,9 33:18 | session 100:1 |
| 262:16 | 158:2 231:7 | sedimentatio | 211:11 | 123:6 |
| saw 59:5 144:5,6 | scout 123:12 | 228:3 229:4 | selection 11:23 | set 6:4 85:13 |
| 157:13 | 176:2,2 177:22 | see 6:6 11:11,15 | 13:4 27:17 | 86:14 98:1 |
| saying 51:13,20 | screen 101:3 | 15:13 17:13 | 32:19 | 100:17,18 |
| 119:23 120:12 | 167:18 181:9 | 19:11 31:5,20 | sells 17:19 | 135:13 143:13 |
| 124:6 139:20 | 211:20 | 33:12,16 54:20 | semi-retire | 159:7 174:3 |
| 257:23 | screens 211:18 | 58:20 60:12 | 105:19 | 245:4,9 272:12 |
| says 19:24 27:4 | scribbled 183:4 | 61:10 65:8 | Senate 19:17 | sets 243:17,19 |
| 54:15 61:11 | scripture 153:5 | 76:11 82:23 | Senator 114:12 | setting 137:15 |
| 82:24 84:2,17 | Scriptures 152:23 | 83:13 84:7,17 | sending 216:13 | 138:3 |
| 92:1 121:22 | seal 118:23 | 89:19 94:12 | sense 31:21 49:17 | settle 229:8 |
| 139:22 156:4 | search 223:18 | 98:20 104:8 | 49:18 88:5 | settlement 12:23 |
| 186:16 246:16 | seasons 176:9 | 117:20 122:18 | 133:22 139:14 | 22:10 29:12 |
| 264:14 272:5 | second 19:20 | 132:10 142:14 | 148:14,18 149:6 | venth 234:9 |
| SB9 115:14 | 48:17 67:21 | 145:19 157:16 | 149:13 167:5 | sewage 140:21 |
| 143:10,20 | 83:8 88:14 | 160:4 163:13 | 187:19 | sewer 163:6 |
| 177:24 | 100:17 106:1 | 164:24 165:13 | sensitivity 85:21 | 7:3 |
| scarcity 160:15 | 129:6 140:11 | 168:4 176:17 | 86:8 | shallow 226:24 |
| scared 164:19 | 172:22 194:13 | 181:9 182:5 | sentence 42:2 | shame 120:17 |

L.A. Court Reporters, L.L.C.

312-419-9292

| share 165:12 | side 41:12 125:5 | 182:22 183:1 | sized 206:23 | 236:24 |
| :---: | :---: | :---: | :---: | :---: |
| 177:1 199:21 | 158:14 160:13 | 185:9 216:10,23 | skilled 65:23 | Sommer 112:4,9,9 |
| Sharene 5:5 36:23 | sides 58:21 138:5 | 237:6 238:3 | slag 92:15 | 112:13 |
| 38:10 205:18,19 | Sierra 4:20 | 243:7 244:23 | Slide 10:14 11:11 | son 124:15 |
| 210:19 | 101:22 102:18 | 245:21 252:21 | 12:1 13:7 | sooner 120:2 |
| shares 38:12 | 106:5 114:7 | 253:1,6,7,12,13 | slides 11:1 | sorbent 48:7,18 |
| 175:22 | 115:18 116:6 | 255:18 256:4,16 | slightly 12:14 45:8 | 50:12 51:4 52:6 |
| sharing 175:20 | 128:5 137:21 | site-conceptual | 66:18 98:16 | 52:11,12,16,19 |
| Shawnee 128:5 | 141:24 163:8,22 | 87:1,22 88:5 | slogan 114:1 | 52:22 |
| Shealey 5:5 36:24 | signature 184:9 | site-specific 70:10 | slope 29:6,7 | sorry 17:1 19:22 |
| 38:3,10 39:23 | 184:14 272:13 | 70:16 80:9,13 | slot 101:10 | 23:18 25:1,6 |
| 40:5 42:1 45:6 | signed 101:10 | 84:15 85:16,20 | slow 208:4 | 28:12 29:6 31:2 |
| 72:23 74:7,10,15 | 114:8 | 86:3,5 87:4,5 | slower 43:15 | 35:12 37:22 |
| 76:2 78:3,6 | significance 13:8 | sites 13:11,13 | 208:8 249:1,3 | 40:11 43:4,15 |
| 205:18 210:19 | 238:8 | 15:19 16:16 | slowing 191:4 | 46:11 47:14 |
| Shealey's 37:7,15 | significant | 26:6 70:14 | slowly 201:13 | 52:2 54:2,13 |
| Sheila 162:15,15 | 195:11 | 80:16 86:14 | sluice 229:2 | 55:8 57:5 59:17 |
| 174:13,16 | significant | 90:7,12 92:4 | sluicing 229:11 | 61:19 62:20 |
| shoreline 117:15 | 54:16 56:19 | 111:9,21 115:5 | slurry 247:9 | 68:12 72:4 |
| 117:19 | Silver 176:4 | 116:13 117:1,13 | small 12:5,12 | 76:15 92:17 |
| shores 116:9 | similar 19:12 | 126:8,10 129:20 | 58:20,21 59:12 | 94:18 147:18 |
| 117:14 | 93:4 253:6 | 131:22 138:4 | 66:4 | 168:14 183:3,7 |
| short 149:7 | 254:14 | 142:23 146:13 | smaller 143:16 | 198:7 202:6 |
| 150:11 160:5 | similarly 20:16 | 148:3 167:10 | smart 121:5 | 210:14,22 220:5 |
| 197:3 | 21:15 53:5 | 173:3 174:5 | Smith 147:15,16 | 228:19 248:6,14 |
| shortcomin | simple 175:13,21 | 237:4 239:3 | 147:17,21,22 | 253:18 257:19 |
| 169:14 | simply 91:21 97:8 | 240:6 253:4,5,16 | soars 114:9 | 258:6 264:6 |
| shorthand 1:11 | 111:20 150:23 | 253:21 | social 121:20,2 | sort 33:11 47:4 |
| 272:7,9 | 173:5 180:11 | sitting 104 | society 147:5 | 127:7 213:16 |
| shot 144:1 | sincerely 108:22 | 169:6 | sociology 164 | 257:19 |
| show 118:18 | sink 215:5,8,11,24 | situated | so | sorts 123:13 |
| 130:24 148:17 | sir 15:17 16:1 | situation 190:4 | soil 108:15 140:22 | sought 238:20 |
| 149:15 | 17:4 19:11 20:6 | situations 33:21 | 161:6 174:2 | sound 67:8 79:10 |
| showcase 146:18 | 21:2,12 22:4,12 | 52:20 180:16 | 150:6 | 79:21,24 |
| showed 189:15 | 26:2,14 28:7 | 189:1 | 17:23 | soundness 239:17 |
| 232:23 | 36:3 225:14 | six 71:16 73:16 | solid 237:7 261:17 | sounds 30:1 |
| showing 181:8 | 228:14,17 | 160:21 201:9 | solids 227:20 | 206:17 225:4 |
| 228:5 | 231:18 265:2 | 222:1 | solution 16:15 | 260:3 |
| shown 104:13 | sister 140:12 | sixth 234:6 | 28:17,18 | source 23:15 |
| 148:15 173:22 | sisters 153:3 | sizable 58:17 | solutions 175 | 31:14 43:11,19 |
| shows 123:3 | site 13:9 29:9 | size 11:14,23 | solved 167:12 | 60:18 80:18,22 |
| Si' 134:9 | 31:16 59:7 85:2 | 12:11 24:18 | 178:2 | 80:23 81:11 |
| siblings 158:16 | 85:4,8,22 89:21 | 36:13,14 44:10 | solving 149:14 | 115:8 130:20 |
| sick 109:24 | 90:7,15,23 | 59:1 155:9 | somebody 156:21 | 131:14 180:7 |
| 120:21 121:2 | 116:12 131:18 | 156:18 | somewhat 229:9 | 189:9 246:20 |

L.A. Court Reporters, L.L.C.

312-419-9292

| sources 61:3 | 13:5 33:8 38:24 | 131:12 | state 1:12 13:8 | states 13:11,13 |
| :---: | :---: | :---: | :---: | :---: |
| 105:8 117:8,14 | 49:15 69:21 | stabilizations 29:6 | 15:8 16:12 | 27:20 32:24 |
| 126:3,5 | 70:15 78:19 | stable 29:10 94:3 | 18:20 19:8 | 35:8,14,17,23 |
| south 2:15,21 | 90:14 92:4 | 94:12,17,17,24 | 28:12 32:5 | 114:10 123:24 |
| 3:14 4:11 | 93:23 107:12 | 94:24 95:3 | 35:22,24 36:2 | 125:8 163:18 |
| 104:14 158:4 | 128:21 174:17 | 103:18 | 41:11 42:22 | 169:10 198:24 |
| 234:10,12 235:2 | 174:20 175:15 | staff 204:10 | 44:4,8 49:18 | 198:24 199:13 |
| southeast 158:14 | 202:11 238:24 | stage 98:13 | 70:13 79:5 | 199:14 201:11 |
| southern 128:6 | 260:7 | 166:16 | 80:15 107:22 | 263:11 |
| 151:22 | specificity $87: 15$ | stand 122:22 | 112:21 115:17 | station 41:12 |
| space 112:7 | 128:19 | 123:4 161:3 | 122:6,11,16 | 76:16 80:20 |
| 119:19 | specifics 49:23 | 251:21 252:3 | 139:24 141:9,10 | 108:10 159:22 |
| Spanish 101:24 | specifies 17:17 | standard 33:4 | 141:13 142:2,5 | 235:14 |
| 102:3 | specify 128:24 | 65:4 87:13 95:6 | 142:14 145:19 | stations 51:7 |
| speak 16:17,22,23 | specifying 17:22 | 95:7 96:5,18 | 158:20 163:1,21 | 55:11 68:2,4 |
| 39:20 52:21 | speculation 227:5 | 246:4,4 247:20 | 164:21 165:19 | 217:20 227:1 |
| 53:10 101:16 | speeds 191:9 | 247:22 | 168:2 169:11 | statistical 190:23 |
| 107:8 116:3 | spent 117:5 254:2 | standards 1:4 | 172:19 173:11 | statistically 189:4 |
| 118:3 121:13 | 256:20 | 28:20 33:6,7,14 | 173:14 178:1 | 240:6 |
| 124:4 127:2 | spike 60:2 | 64:1,10 90:9,10 | 193:24 198:13 | statistics 182:13 |
| 128:5 137:24 | spikes 60:13 | 100:8 103:5 | 200:8 209:6 | status 96:11 |
| 138:20 140:1 | spill 140:19 | 106:15 116:17 | 210:1 212:16,19 | statute 20:7 21:3 |
| 142:5 164:23 | 142:20 | 129:22 136:16 | 226:11 239:2,6 | statutes 30:9 |
| 165:4,23 168:10 | spoken 69: | 160:3 165:11,16 | 248:9,20 249:11 | stay 148:11 149:3 |
| 170:19 213:5,6 | spokesperso | 244:23 245:3,8 | 250:12 261:3 | 168:6 |
| speaker 142:18,19 | 237:17 | 245:11 246:10 | 262:3 272:1 | stays 128:21 |
| speakers 142:16 | spot 260: | 246:18 | state's 73:2 | 164:13 |
| 178:9 | spots 260:5 | stands 51:2 | 128:10,14 | steal 153:14,17,17 |
| speaking 32:11 | spread 146:6 | 237:12 238:6 | state-laid 253:4 | steelworker 157:4 |
| 107:17 115:17 | Springfield 2:9 | star 101:4 112:8 | state-proposed | 157:5,11 |
| special 172:16 | 3:2,3,5,15,21 | start 24:20 76:6 | 194:8 | step 84:24 85:1 |
| specific 11:4 | 7:21 29:22 30:6 | 76:11 78:14 | stated 18:3 28:19 | 88:20 177:22 |
| 16:22 18:20 | 74:6 140:13 | 80:5 86:23 87:2 | 31:12 38:22 | Stephanie 2:8 |
| 20:9 50:1,22 | 191:18 218:4 | 88:16 102:5 | 42:5,13 54:1 | 36:11 40:6 |
| 51:2,6,12,20 | 259:7 269:16 | 187:1 189:6 | 55:8 62:14,24 | 162:17,17 |
| 56:2 60:17 | spurs 217:1,2 | 196:1 200:24 | 63:9 64:20 | 197:23 |
| 70:14,20 73:7 | square 207:17 | 202:20 230:20 | 152:20,21 162:7 | stephanie.diers... |
| 80:16 85:22 | squarely 178:6 | 237:14 259:1 | 181:21 203:9 | 2:11 |
| 88:1 92:13 | SS 272:1 | 269:2 | 242:18 265:15 | STEPHEN 3:7 |
| 126:19 130:20 | ssylvester@atg. | started 40:2 | statement 10:8 | STEPHENS 3:13 |
| 137:8 139:18,19 | 3:10 | 67:12 | 38:4 64:5 91:20 | stepping 97:22 |
| 217:15 220:12 | St 112:17 140:10 | starting 46:9 89:6 | 193:8 203:20 | steps 114:12 |
| 230:23 231:1,4 | 151:23 157:5,10 | 186:8,15 222:11 | 204:12 244:4 | stewardship |
| 253:6 262:15 | stability 28:20 | starts 11:17 | 249:14,16 263:8 | 165:18 |
| specifically $12: 18$ | 29:1,5,7,8,11 | 222:21,22 | statements 261:11 | stirring 129:2 |

L.A. Court Reporters, L.L.C.

312-419-9292

| stockpiled 174:2 | 3:3,8,14 4:16 | 176:22 246:5 | 185:12 187:13 | 126:16 127:6 |
| :---: | :---: | :---: | :---: | :---: |
| Stone 69:22 70:1 | 182:18 | subjected 215:14 | 187:21 197:4 | 134:14 162:24 |
| 70:20,22,23 | strengthen 103:5 | submit 180:12 | 198:14 | 163:23 200:9 |
| 71:19 134:19,21 | 129:18,24 | 251:3 | suggesting 184:8 | 261:11 |
| 135:1 | strict 107:5 | submits 253:24 | 185:17 244:14 | supported 11:8 |
| stop 67:20 105:1 | 212:11 | submittal $83: 7$ | suggestion 224:2 | 18:6 |
| 128:8 130:2,19 | stricter 122:23 | submitted 80:19 | suggestions 188:5 | supporters 114:8 |
| 174:7 184:21 | 147:8 | 81:8 100:22 | suggests 95:24 | 121:22 |
| stopped 45:21,22 | strictest 150:17 | 180:18 199:6 | 87:9 | supporting |
| 238:8 | strike 202:19 | 235:24 | suit 184:9 | 167:23 |
| stopper 215:11,1 | 213:19 242:24 | subpart 80:6 | suite 2:15,21 3:14 | supports 38:24 |
| storage 133:21 | striking 213:15 | 248:6,7 255:11 | 4:7,11 184:11,14 | 125:21 126:12 |
| 147:10 161:5 | stringent 126:9 | 256:13 257:8 | 186:5,8 | supposed 156:3 |
| 165:10 204:3,6 | 153:22 | 258:6,7,7 | sulfate 160:2 | 215:3 |
| 204:18 226:7 | strong 104:21 | subparts 198:10 | 164:23 | sure 21:5 28:13 |
| 228:6,7 229:8 | 106:13 113:9 | 247:24 | Sullivan 127:4,5,6 | 30:10 31:13 |
| 237:7 238:2 | 114:2 117:23 | subsection 247:4 | summary 10:8 | 32:20 35:13,22 |
| store 195:6 228:1 | 134:14,24 135:5 | subsections | 11:2 38:4 77:9 | 52:5 57:18 |
| stored 117:5 | 142:19 145:6 | 245:12 | 77:10 193:8 | 60:22 68:16 |
| 118:8 128:20 | 162:5 168:2 | subsequent 84:3,6 | 236:13,16,16 | 79:22 87:18 |
| 160:10 171:24 | 171:16 222:13 | 84:11,13 87:14 | 241:1 | 88:18 92:11 |
| 175:5 195:16 | stronger 143:22 | 98:3 | summation 63:10 | 94:20 97:16 |
| stores 214:22 | 165:15 | subsidiaries 115:2 | summer 104:9 | 106:22 109:10 |
| storing 129:3 | strongest 127:7 | substances 144:14 | 105:7 | 124:1,1 133:12 |
| 133:9 136:24 | 131:4 135:15 | substantial 42:9 | Sunnybrook | 135:6 139:9 |
| 146:10 | 159:5 169:21 | substantially | 102:15 | 142:23 148:22 |
| storm 117:16 | 170:4,7 178:9 | 195:19 244:6,8 | Superfund 59:6 | 151:15 152:11 |
| storms 96:22,24 | strongly 113:24 | substantive | 117:1,13 131:22 | 179:10 180:12 |
| 97:6 117:18 | 155:10 159:4 | 270:21 | supersede 35:24 | 182:11 185:7 |
| story 161:1 | structure 35:8 | success 16 | supplement | 186:5 188:17 |
| 168:24 175:13 | 251:24 | sudden 188:21 | 239:12 | 189:14 190:10 |
| 175:16 | structures 238:22 | 189:2 | supplemental | 215:21 219:19 |
| stream 176:6,7,9 | struggle 227:12 | suffer 118 | 197:1 | 223:13 227:5 |
| 176:10,11,11,13 | struggling 138:17 | suffering 138:14 | supplied 65:8 | 232:1 233:11 |
| 176:15,17,23 | studied 176:9 | 156:24 | supplier 150:6 | 256:6 265:6,13 |
| 177:4,8 | studies 88:23,23 | sufficient 59 | supplies 103:14 | surface 1:5 11:12 |
| streamline 190:5 | study 33:8 36:13 | 91:14 95:23 | 104:12,22 | 11:15,17 12:3 |
| streamlining | 88:4 186:11 | 106:24 129:3 | supply 116:23 | 15:20 16:8 |
| 187:17 188:11 | 189:10 227:6 | sufficiently 89:17 | 135:9,10 149:7 | 17:18 41:16 |
| 188:15 190:3,15 | studying 107:11 | 94:5 | 160:14 163:12 | 44:17 49:18 |
| streams 126:23 | stuff 127:9,12 | suggest 50:3 88:3 | 163:13 173:19 | 52:13 53:23 |
| 143:16 152:16 | 154:19,22 155:4 | 155:11 196:7,12 | 246:3 | 54:5 58:13 |
| 173:13 176:5,19 | 155:14 156:7,24 | 262:15 | support 18:5 | 64:23 65:3,5 |
| 204:23 | 157:12 | suggested 39:10 | 84:21 86:12 | 66:11 69:13 |
| street 1:13 2:21 | subject 15:21 | 39:16 40:15 | 87:9 88:21,22 | 78:9 86:17 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 90:14,16 91:10 | swim 120:11 | 79:3 96:15 | 181:11 210:16 | 57:19,20 60:19 |
| :---: | :---: | :---: | :---: | :---: |
| 92:5 96:19 | switched 53:15 | 103:1 132:23 | 255:18 265:1 | 75:1 160:5 |
| 100:9 104:22 | sworn 6:19 9:14 | 133:12,15 | tank 238:2 | 195:8 |
| 115:6 133:13 | 37:5 76:21,23 | 193:23 195:22 | tanks 195:16 | terminate 94:10 |
| 188:13 193:21 | 193:6 230:22 | 196:3 200:11 | 204:5,17 | terminated |
| 194:3,18 196:6 | 231:17 269:2 | 204:12 206:22 | $\boldsymbol{\operatorname { t a r p }} 155: 17$ | 126:19 |
| 196:10 200:11 | 272:5 | 209:9 210:4 | 214:11 | terminating 94:15 |
| 201:16,22 202:8 | Sylvester 3:7 8:13 | 217:18 | tarped 60:12 | 94:22 |
| 202:17,22 | 8:15,17 34:11,13 |  | tarping 60:14 | terminology 56:3 |
| 208:12 209:7,15 | 75:17,18 | T | task 16:8 161:22 | 57:9,11 87:20 |
| 209:22 210:3 | system 39:17 | T 4:15 | $\boldsymbol{t a x} 164: 14$ | 97:17 |
| 212:9 214:5,6,11 | 41:16 42:8 | T-A-C-O 237:9 | taxes 174:8 | terms 136:8,18 |
| 214:14,21 | 48:21 63:19 | tabulate 86:6 | taxing 166:22 | 181:19 185:2 |
| 224:13 238:18 | 64:17 65:12 | tabulation 83:6 | taxpayers 127:14 | 226:18 250:12 |
| 239:22,23 | 66:19 67:7 | Taco 237:9,12,14 | 174:7 | 251:17 |
| 240:14 246:9,17 | 78:20 88:13 | 237:15 238:2 | teacher 172:16 | terrain 227:3 |
| 246:22 247:2 | 93:20 94:4 | take 11:3 12:5 | Teamsters 155:12 | terrible 124:16 |
| 254:10,22 | 95:21,23 96:1 | 19:13 21:4 31:1 | technical 2:5,5 | 138:10 157:1 |
| 261:23 264:11 | 97:24 98:2,15,19 | 31:6 40:12 | 8:20 34:16 | territory 91:13 |
| surgeon 105:20 | 140:21 182:2 | 45:11 76:7,19 | 75:20 107:21 | test 60:24 199:6 |
| surprisingly 120:4 | 186:21 195:1,2 | 98:22 105:11 | 121:14 179:6 | tested 60:16 151:2 |
| surrounded 109:5 | 195:11,15,24 | 108:3 110:3,7 | 192:13 218:24 | testified 56:18 |
| surrounding | 196:9,23 197:1 | 111:17 117:6 | 222:10 266:21 | 65:2 115:10 |
| 108:9 128:20 | 200:15 201:2,15 | 121:7 123:13 | 270:6 | 262:18 265:7 |
| 130:3 151:1 | 202:18,23 | 135:9 142:22 | technologically | testifies 48:12,17 |
| 182:2 | 203:22,24 | 143:22 146:4,19 | 31:7 | 48:19 |
| surrounds 164:20 | 204:11,19 206:1 | 149:17 150:12 | technology 52:17 | testify 92:23 |
| surveyed 176:12 | 206:4 207:24 | 155:15 173:21 | 52:24 53:8 | 263:1 |
| surveys 177:9 | 208:11,19 | 177:23 184:18 | 175:4 | testifying 67:1 |
| survivor 158:12 | 209:14,21 | 186:10,19 | teenagers 150:3 | 268:24 |
| Susan 162:18,18 | 210:11,13 211:2 | 187:10 203:17 | telephone 100:20 | testimony 6:22 |
| suspect 211:17 | 211:4,14,19 | 217:14 226:15 | tell 45:6,22 46:2 | 7:4 9:2,17 10:9 |
| sustain 71:20,21 | 212:8 213:1 | 258:18 | 55:24 113:1 | 10:22 11:3 18:4 |
| 81:3 250:20 | 214:6,24 215:2 | taken 1:10 99:8 | 151:8 184:13,21 | 18:13,16,18 |
| sustainable 143:5 | 215:22 217:13 | 117:22 152:14 | 222:3 | 20:10 21:12 |
| sustained 93:13 | 217:17 219:12 | 169:11 173:23 | tells 155:8 | 22:8,14,21,22 |
| 242:23 | 219:16 221:3,6,7 | 179:20 187:6 | temporary 136:19 | 23:2,6,16 24:11 |
| swab 199:5,5 | 222:18 223:5 | 258:21 262:24 | ten 89:10 90:4 | 24:23 26:10 |
| 200:2 | 225:19,21,23 | 272:9 | 91:21 167:2 | 27:18 28:6 |
| swam 140:17 | 226:8,15 227:8 | talk 165:19 | 172:24 238:13 | 30:10 31:12 |
| swayed 123:1 | 227:17 229:23 | 202:11 | 238:15 | 32:4 33:8 35:20 |
| swear 6:17 9:13 | 230:6 247:7,8 | talked 32:2 200:1 | ten-mile 38:16 | 37:7 38:22 39:6 |
| 37:3 193:5 | 260:2 | 219:8 247:19,19 | tendency 139:6 | 39:6,10,15 40:24 |
| 231:14 | systems 41:15,21 | 253:3 255:19 | Tennessee 169:3 | 41:1,20 42:6,13 |
| sweeping 64:5 | 45:15 53:6,11 | talking 109:8 | term 56:7 57:19 | 42:21 48:10 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 49:8,9,11,12 | 38:9 39:19,21,22 | 178:16,17 179:2 | 139:12,15 | 254:17 266:17 |
| :---: | :---: | :---: | :---: | :---: |
| 50:1 54:1 55:19 | 40:2,13 41:3 | 179:19 180:3,23 | 148:14,20,22 | thinking 120:8 |
| 55:23 56:2,15 | 42:16,20 43:23 | 191:16 192:2,8 | 155:24 157:2 | 139:10 217:15 |
| 61:11 62:15,24 | 44:20,21 46:18 | 192:11,14,17,19 | 163:20 166:23 | 223:16 226:11 |
| 63:9,22,24 64:4 | 47:12,16 55:18 | 193:7 197:7,8,11 | 170:8,15 171:11 | third 48:24 |
| 64:5,8,12,20,24 | 56:20 67:5 | 199:22 202:5 | 177:22 185:22 | 120:22 150:10 |
| 65:7 68:16,19 | 71:22 74:5 75:5 | 205:6 210:21 | things 58:21 | 233:22 |
| 77:1 87:19 88:2 | 75:11,15,18,21 | 212:15,20 215:4 | 65:15,23 69:5,5 | thirteenth 235:4 |
| 89:6,14,21 90:6 | 76:2,3 77:3 79:6 | 216:1 217:11 | 96:14 107:18 | Thomas 162:19 |
| 90:20,24 91:2,16 | 79:7 82:3,16 | 218:1,3,19,22 | 139:18,18,19 | Thompson 1:12 |
| 92:21,21 93:19 | 89:1 92:7 | 219:1 220:20 | 152:9 153:7 | 6:4 102:2 |
| 93:21,24 95:11 | 103:20,21 104:3 | 221:20 222:6 | 171:7 185:21 | 179:24 |
| 96:13 169:16 | 105:12,13,17 | 224:9 225:7 | 187:21 251:19 | thoroughly 170:3 |
| 179:18 184:8,15 | 107:2,5,7 110:6 | 228:12,14,17 | 257:17 267:15 | thought 148:13 |
| 185:12 187:13 | 110:16,17,24 | 229:14 230:8,11 | think 6:8 37:18 | 161:8 168:23 |
| 187:21 188:4,18 | 111:23 112:1,13 | 230:13 231:8,16 | 41:19 45:3,8 | 169:10 201:9 |
| 188:19 196:15 | 114:3 115:22,24 | 231:22 233:5 | 50:12 51:5,5,15 | 229:6 |
| 197:10 198:11 | 116:2 118:2,4 | 236:19 241:11 | 51:21 54:1,2 | thoughtful 139:11 |
| 213:21,22 | 119:8,9 121:9,10 | 243:10 249:17 | 55:8 56:15 | thousand 59:11 |
| 219:21 232:3,4,7 | 121:12 123:4,5 | 249:21 252:12 | 59:14 65:24 | threat 103:2 |
| 232:8 233:10 | 124:4,6,7 125:12 | 254:19 255:3,4 | 71:7 72:5 73:11 | 111:13, 15 145:7 |
| 236:14 239:10 | 125:14,15 127:2 | 256:10 257:3 | 73:19 77:24 | 152:17 164:19 |
| 239:12,13 243:1 | 127:3,18,20,22 | 258:14 259:6,16 | 84:4,22 89:2 | 172:5 175:5,6,7 |
| 243:4,8,18,24 | 128:1 130:5,7 | 260:3 266:18,23 | 90:1 91:17 | 245:17 |
| 250:2 251:3,5,5 | 131:24 132:1,13 | 268:18 269:7,10 | 107:19 121:3,19 | threaten 103:19 |
| 252:2,6 260:9,17 | 133:23,24 | 269:11,15 270:1 | 122:4,12,15 | 115:11 |
| 260:21 261:1 | 135:17,18 | 270:4,7,9 271:5 | 138:8 139:1,19 | threatened 144:8 |
| 262:13,22 | 137:17,18 140:1 | 271:9 | 142:8,11 145:22 | 163:11 167:1 |
| 265:15 267:12 | 140:3 141:16,17 | thanking 166:4 | 146:1 148:14 | three 11:21 12:2 |
| 268:5,7,8,10 | 141:23 143:1,6,7 | thanks 40:12 99:6 | 154:3 171:20,23 | 49:3,6 56:1 |
| 272:12 | 144:18,19,21 | 130:16 162:23 | 172:2 180:15 | 95:22 98:10 |
| testing 84:13 | 147:11,12 | 163:21 177:13 | 183:23 184:2 | 106:4 113:11 |
| 199:6 200:2,3 | 149:19,20,24 | 178:18 179:16 | 191:15 195:24 | 114:10 131:13 |
| Texas 163:5 | 151:17,18 | 228:13 258:20 | 196:2,22 199:3,4 | 156:9,24 174:24 |
| thallium 126:1 | 153:20,22,24 | theirs 142:23 | 199:19 200:1 | 185:10 214:8 |
| thank 6:7,20 7:17 | 157:17,18 158:1 | theme 175:22 | 201:8,11,12 | 235:19 238:10 |
| 7:20,24 8:3,22 | 159:9,11,12 | theology 132:16 | 202:3 203:12 | 245:12 |
| 8:23 9:2,4,15 | 160:17,18 | theoretical 97:15 | 207:21 210:5,8 | throw 155:17 |
| 10:13 14:1,3,8 | 162:10,11 164:4 | thick 211:10 | 211:21 215:22 | thumb 62:5 |
| 14:23 15:7,16 | 164:5,9 165:23 | thickness 211:9,9 | 216:12 223:3,10 | tier 237:8 |
| 18:23 21:14 | 165:24 166:2 | 211:11 | 224:1,6 228:10 | tight 38:20 58:7 |
| 26:12 29:14,16 | 168:10,11,13,19 | thing 23:21 54:19 | 229:13 231:2 | till 226:23 |
| 29:18,21 33:22 | 170:18,19,20 | 70:16 88:16 | 243:23 247:19 | time 11:3,4 13:24 |
| 34:5,9,14,18 | 172:12 174:10 | 89:7 107:19 | 249:20 250:17 | 14:1 34:13 |
| 36:3,8,16,20,21 | 174:11,14 | 123:14 136:6 | 251:20 254:13 | 40:12 44:9 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 79:18 83:5,15 | 107:8,16,16 | 169:24 | trash 176:11 | 207:9 223:18 |
| :---: | :---: | :---: | :---: | :---: |
| 95:24 101:8,10 | 108:3,17 109:8 | toxins 104:11 | traveling 145:15 | trying 55:5 56:9 |
| 106:24 109:4 | 110:6,16,20,24 | 109:12 128:12 | treaded 93:3 | 69:19 81:7 |
| 110:6,14,16 | 111:23 116:3 | 128:16,23 | treat 118:18 | 87:16 110:12 |
| 111:23 114:13 | 120:19,23 | 129:10 137:6 | treated 249:24 | 179:5 210:6 |
| 118:21 119:8 | 121:20 123:8 | 152:17 | treating 121:5 | 223:10,23 251:9 |
| 121:4 127:2,19 | 137:23 140:2 | trail 114:24 | treats 147:6 | tune 60:5 |
| 130:5 131:24 | 141:5 144:18 | train 217:14 | 214:21 248:18 | turn 14:24 38:11 |
| 133:23 137:17 | 145:4 152:2 | 257:19 | 249:9 | 45:1,2 46:8 |
| 141:1 142:14 | 155:9 164:3 | trains 216:18 | tremendous | 47:13 61:6,21 |
| 144:18,24 148:1 | 169:16,17 | trans 170:22 | 142:10 | 67:23 80:2 |
| 149:2,3 151:17 | 170:19 174:12 | transcript 272:9 | trench 247:9 | 82:13 83:6,24 |
| 162:2 163:4 | 174:24 175:14 | transfer 41:10,10 | trend 12:16 | 85:23 89:4 |
| 165:9 167:24 | 175:22 177:12 | 41:13 161:19 | trends 182:15,18 | 154:5 178:11 |
| 173:1 174:10 | 178:18 179:3,10 | 217:20 | 190:21,24 | 184:2 198:1 |
| 175:12 178:16 | 180:14 243:18 | Transformational | tributaries 143:16 | 208:23 211:6 |
| 179:5 182:14 | 252:6 267:10 | 222:21 | tried 33:10 88:2 | 214:9 236:10 |
| 183:3 190:7 | 271:7 | transitioned 54:7 | 91:19 92:2 | turning 11:10 |
| 192:2 202:15,24 | today's 73:12 | 54:8 | 134:21 171:10 | 44:22 54:10 |
| 203:17 232:16 | 267:7 | transitioning | triggered 189:24 | 66:2 67:14 |
| 240:24 254:2 | told 113:2 147:24 | 166:12 | triggers 33:3 | turns 226:23 |
| 256:20 | 156:17 157:6 | translated 102:3 | 182:14 189:5 | twelfth 235:1 |
| time-consuming | 267:15 | 167:21 | trips 148:7 | twice 240:23 |
| 15:12 | tolerate 158:18 | translations | Troop 176:3 | twin 148:5 |
| timeframe 76:15 | tomorrow 178:20 | 139:17 | 177:22 | two 11:1 48:10 |
| timelines 26:21 | 179:8,14 271:7 | translator 139:20 | troops 209:11 | 66:8 95:22 |
| 58:4,5,6 136:20 | tons 17:23 154:18 | transparency | trouble 45:10 | 100:12 106:3 |
| 151:10 | 154:18 | 149:5 164:1 | truck 60:2 155:17 | 110:20 117:2 |
| times 59:5 70:15 | tool 86:1 98:1,2,5 | 165:11 166:14 | 216:21 | 124:12 128:17 |
| 87:17 108:23 | 98:14 | 166:19 | trucking 217:13 | 130:15 131:10 |
| 167:2 179:13 | top-notch 103:15 | transport 195:7,7 | trucks 60:9,11 | 150:3 154:15 |
| 194:12 195:14 | topic 170:14 | 195:13,16 204:3 | 113:22 167:16 | 156:24 176:12 |
| 211:16 217:8 | topographic | 204:6,17 205:1 | 217:4 | 185:10 188:11 |
| 237:19 | 214:15 | 216:22 226:7 | true 11:23 16:5 | 193:19 194:10 |
| timing 181:17 | totally 42:3 | 230:1 | 51:17 129:13 | 199:19 201:18 |
| Tipsord 2:3 | tour 144:4 | transportation | 147:5 148:18 | 202:1 212:3,12 |
| 251:12 | towers 145:24 | 113:20,20 | 172:8 272:8 | 223:3 238:8 |
| tired 131:3 | toxic 102:22 | 145:12 167:14 | truly 98:18 160:8 | 243:17,19 |
| tirelessly 143:4 | 103:17 106:8 | 167:17 | Trump 143:11,19 | 244:12,14 |
| title 55:13 163:3 | 109:14 110:14 | transported | trust 149:6 171:18 | 247:13 260:5 |
| today 7:1 11:10 | 115:5 128:9,18 | 155:16 191:8 | trusted 173:24 | two-minute |
| 16:18 29:24 | 145:12 146:3,14 | transporting | trusting 118:22 | 101:13,15 123:7 |
| 39:20 76:6 | 150:20 158:10 | 145:12,14 146:9 | try 24:21 59:18 | two-step 86:9 |
| 100:20 101:13 | 158:15,17 | 204:20 | 63:7 109:10 | type 30:12 33:13 |
| 101:16 102:2 | 163:12 169:5,19 | traps 111:20 | 179:7 190:4 | 33:15,17 36:14 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 48:18 50:13 | 11:13 26:11 | 109:11 | 245:14 | Venice 234:9,12 |
| :---: | :---: | :---: | :---: | :---: |
| 95:18 124:22 | 53:18,19 59:5 | unlined 173:3 | useful 187:17 | 235:2,16 238:10 |
| 217:20 | 72:8 83:3 85:4 | unload 217:4 | uses 22:21 245:20 | ventured 91:12 |
| types 69:4 | 90:13 95:20,23 | unmute 101:2 | 245:23 246:1,2 | verification |
| typical 44:16 | 96:4,15,18,21 | 112:6,8 | usually $27: 6$ | 189:21 |
| typically 11:18 | 104:23 241:14 | unnamed 176:6 | 161:18 171:20 | verified 272:13 |
|  | 262:21 | unnatural 140:23 | USWAG 261:4,16 | verify $215: 15$ |
| U | understood 93:14 | unnecessarily | 261:20,21 262:8 | Vermilion 164:24 |
| U.S 39:1 144:23 | 94:5 | 109:11 | 262:12,18,20,23 | versus 36:13 47:8 |
| 207:23 | undo 178:11 | unregulated | 263:1,10 265:7 | 261:17 |
| Uh-huh 200:7 | undoubtedly | 144:7 | 265:16 | very-low 113:22 |
| 209:3 | 133:6 | unrelated 73:1,10 | utilities 30:20,23 | viable 13:20 15:9 |
| ultimately 158:21 | unequivocally | unremarkable | 31:5,19 39:3 | 16:7,12 31:11 |
| 176:8,19 | 173:22 | 176:15 | utility 30:9 261:17 | vice-president |
| unacceptable | unfair 27:15 | unsafe 129 | V | 140:11 |
| 227:14 | unfortunately | 146:13 | V | vicinity 103:17 |
| unaddressed | 101:14 | unskilled 146:20 | vacate 264:23 | video $2: 2,3,4,4,5,5$ |
| 261:9 265:24 | unfounded 104:12 | unsure 171:14 | 266:2 | 2:7,8,20 3:2,7,8 |
| unanticipated | unified 189:16 | unusually 83:11 | vacated 264:18 | 3:14,20 4:6,11 |
| 215:24 | Uniform 245:21 | up-to-date 10:21 | 266:14 | 4:15 5:3 100:15 |
| uncertainty $222: 8$ | 245:22 | upfront 95:19 | vacatur 266:6,10 | 101:4 112:5 |
| 222:9 | unincorporated | uphold 162:7 | vague 137:2 | view 184:13 |
| unclear 230:5 | 174:18 | upper 13:10 | valiant 170:9,12 | viewed 121:20 |
| unconsolidated | unintended | upset 154:15 | valid 189:14 | viewer 106:23 |
| 129:6 131:15 | 207:20 | upstream 108:11 | Valley 3:17 236:6 | village 4:19 120:6 |
| uncovered 172:6 | union 3:17 155:10 | 140:19 | valuable 147:6 | 171:3 172:1 |
| underground | 157:2 | upwind 58:10 | 158:21 | violation 242:10 |
| 104:11,22 237:6 | unique 261:14 | 59:2 | Van 2:4 100:14 | violations 33:4 |
| 238:1 | unit 2:5,5 8:20 | urge 129:23 | 179:2 | Virginia 19:17 |
| underneath | 34:16 75:20 | 131:16 139:15 | Vanessa 1:9 2:2 | 164:6,7 166:1,3 |
| 176:16 | 94:4 192:13 | 139:18 159:4 | 6:2 25:7 42:2 | 172:14,15 |
| underserved | 218:24 223:1 | use 13:18 17:9 | 50:18 63:5 99:2 | visit 125:2 |
| 105:22 137:5 | 227:22,23 | 30:19,21,24 31:6 | 100:4 179:24 | visits 148:2 |
| understand 30:10 | 238:15 266:21 | 31:10,18 33:1 | 208:7 214:1 | Vistra 114:22 |
| 51:10 55:6 56:9 | 270:6 | 35:21 48:21,23 | 220:4 240:20 | 177:18 |
| 59:12 60:8 | United 112:15 | 49:21 52:12 | 249:1 259:1 | visual 199:1,1,4 |
| 67:21 71:23 | 123:24 140:9 | 57:9 59:1,6,6 | 263:3 | 199:13,17 200:2 |
| 79:22 92:11 | 150:4 151:21 | 64:7 78:13,15,18 | various 60:23 | vital 111:4,10 |
| 98:2,15 154:14 | 155:12 | 79:3 86:8 98:2 | 148:3 151:24 | voice 106:5 |
| 161:21 183:7 | units 19:4,6 20:12 | 136:12 152:4 | 253:21 | 129:16 142:20 |
| 194:7 213:13 | 20:13 206:12 | 155:9 161:12 | vast 236:22 | voicing 165:4 |
| 230:7 241:14 | 224:14,23,24 | 167:18 171:10 | Vectren 22:19 | volume 11:20,22 |
| 243:3 251:9 | universe 53:10 | 174:6 199:13 | 23:12 | 12:3,8 17:9,22 |
| 252:6 253:18 | University 132:16 | 202:8 207:16,17 | vegetations 150:9 | 27:21 110:20 |
| understanding | unknowingly | 217:13 230:5 | Venedy 172:18 | 123:8 228:1 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 229:8 | 148:17,18 149:8 | 115:6,8 116:16 | 131:17,18,20 | 122:1,24 179:10 |
| :---: | :---: | :---: | :---: | :---: |
| volumes 12:5,8 | 149:16 152:13 | 116:22 117:21 | 133:9 146:23 | 203:8 257:5 |
| volunteer 237:5 | 157:9 165:8,8,9 | 121:1 122:20 | 154:12 159:20 | weaker 143:21 |
| Voss 162:15,15 | 165:10 168:3 | 123:15,15 | 159:21 164:20 | 149:10 |
| 174:13,14,16 | 242:14,19 | 124:24 125:21 | Waukegan's | wealthy 123:19 |
| voter 164:13 | 262:20 | 126:3,5,18 127:1 | 131:2 | Webex 100:19 |
| Voters 125:19,20 | wanted 15:17 | 129:16 131:5,9 | way 11:21 26:4 | 178:21 |
| 126:12,20 | 25:15 78:5 | 132:23 133:14 | 51:16 71:15,16 | website 17:21 |
| 137:22,23 | 153:4 179:10 | 133:14,17 135:5 | 72:13 86:13 | 23:12 28:2 |
| 168:21 | 186:22 206:21 | 135:8,16 138:18 | 87:1,18,23 96:1 | websites 10:19 |
| vulnerable 106:19 | 211:10 | 140:20 141:12 | 100:20 115:1 | Wednesday 152:7 |
| 134:13 139:23 | wants 224:6 231:3 | 143:12,24 | 120:6 132:6 | week 169:16 |
| 167:19 | warehouses 118:8 | 144:15 150:15 | 139:3 150:12 | weeks 56:1 164:18 |
| W | warn 76:16 | 150:19 151:3,13 | 168:6 178:6,13 | weeping 153:6 |
| W | anted 93:3 | 152:15 153:18 | 187:6 190:1 | weigh 252:4 |
| Wacker 2:15 4:7 | warrants 163:16 | 155:15 158:6,8 | 196:24 205:23 | weighs 213:22,23 |
| 4:11 | Washington 3:8 | 158:10 160:3,14 | 231:6 232:22 | weight $17: 22$ |
| Wagstaff 5:7 | 4:16 172:17 | 160:15,16 | 241:3 253:8 | 102:7 108:6 |
| 230:24 231:2,4 | wasn't 54:7 | 161:16 163:4,11 | ways 108:1 | 110:8 213:3 |
| 231:21,21 232:4 | 179:13 189:1 | 163:13,14 | we'll 9:1,6 14:5 | 250:1 251:5 |
| 232:9 236:13,16 | waste 107:22 | 165:21 167:6,9 | 76:7,8,11 81:21 | 252:5,9 |
| 241:14 268:24 | 120:3 125:22,23 | 169:7 173:14,18 | 99:4,5 105:14 | welcome 100:3,16 |
| 269:1,4,6,9,14 | 128:9 137:13 | 174:2 176:23 | 110:18 123:6 | 179:14 |
| 270:9 | 140:21 144:7 | 195:7,7,14,16 | 132:4 141:21 | welcomed 100:18 |
| wait 21:17 51:5 | 158:17 161:9,9 | 203:24 204:6,18 | 179:17,18 181:4 | well-being 107:14 |
| 144:16 181:9 | 161:15 171:9 | 204:23 212:10 | 191:18 192:21 | 151:13 163:14 |
| 189:13 213:6 | 175:10 185:11 | 215:9,13,23,24 | 197:16 231:15 | well-calibrated |
| waiting 131:1,3 | 187:22 188:1,24 | 223:4,5 225:21 | 241:1,1 258:18 | 98:6 |
| wake 144:14 | 189:1 191:7 | 226:7 228:2,6 | 258:24 259:2 | well-compacted |
| waking 164:16,17 | 216:17 221:7 | 229:5,7,9,10,24 | 269:1,2 271:6 | 194:11 |
| walk 117:19 | 222:22 224:22 | 230:1,5 | we're 6:16 49:22 | well-designed |
| 120:10 165:17 | 224:24 237:7 | water-rich 173:14 | 67:9,15 73:8 | 227:22 |
| walking 158:4 | 261:17 | waters 125:13 | 76:6 79:13 86:1 | wells 66:11 79:2,4 |
| walls 247:9 | watch 153:3 | 128:10,14 130:3 | 109:8 113:2 | 79:7 98:13 |
| want 23:18 30:16 | watching 67:13 | 143:15 167:2 | 121:19 122:5,5 | 104:15 106:17 |
| 31:4 44:24 45:1 | 165:3 | 174:5 178:4,10 | 125:8 131:1,4 | 130:22 141:15 |
| 45:10 47:20,21 | water 28:20 44:6 | 246:3 | 156:12 164:19 | 151:1 167:7 |
| 50:7 61:9 63:15 | 44:10,11,12,16 | waterways 141:6 | 165:3,3 179:23 | 191:6 240:5 |
| 70:6 76:16 | 49:2 94:10,16,23 | Watt 137:19, 20 | 185:22 195:8 | 247:9 |
| 78:19 80:10 | 95:4,6 96:19 | 137:20 | 207:11 213:8,13 | went 33:16 61:16 |
| 83:20 84:7 | 98:7,12,20 | Watts 164:11 | 215:3 220:17 | 144:4 163:4 |
| 93:23 95:20 | 102:24 103:1,14 | Waukegan 111:11 | 230:6 232:2 | 194:23 240:22 |
| 120:19 122:18 | 104:8,12,22,24 | 116:8,12,12,24 | 264:8 270:16 | weren't 143:15 |
| 124:11 125:1,2,9 | 105:1 106:8 | 117:3,15,23 | we've 10:19 19:12 | West 1:13 3:8 |
| 129:15,23 147:1 | 110:4 111:3,7,19 | 130:15,18 | 27:19 95:18 | 149:23,24 150:2 |

L.A. Court Reporters, L.L.C.

312-419-9292

| wet 106:14 126:4 | 34:3,5,7,8 36:18 | 174:19,22 | 147:2 152:11 | 238:16 |
| :---: | :---: | :---: | :---: | :---: |
| 126:4,7 128:23 | 36:21,22 37:4,5 | Woods 116:5 | 165:5 199:10 | years 16:10 94:1,2 |
| 141:7,10 148:23 | 38:6,9 40:1 42:4 | word 47:3 61:24 | workplace 110:1 | 94:11 95:2,15,22 |
| 165:8 | 48:1 51:23 52:2 | 69:15 169:7 | works 105:20 | 96:9 102:16 |
| wet-handled 53:9 | 63:7 75:11,14 | 170:12 173:23 | 150:4 | 105:23 106:4 |
| wetlands 116:5 | 76:3,4,22,23 | 210:7 244:8 | world 120:15,22 | 108:16 119:18 |
| 143:16 | 77:14,17 88:9 | wording 201:5 | 169:4 | 131:22 139:2 |
| WHEREOF | 91:17 97:13 | words 156:5 | worries 107:20,21 | 143:23 148:4,10 |
| 272:12 | 181:2,6 192:7,19 | work 38:17 45:3 | worry 107:19 | 154:17,21 |
| wholly 73:10 | 192:20,24 193:3 | 60:5 100:21 | 109:20 | 155:22 156:9 |
| 250:17 | 193:6,10,13 | 115:13 120:18 | worrying 109:2 | 160:22 166:10 |
| wicked 153:10 | 197:18 205:18 | 123:22 135:23 | wouldn't 58:22 | 167:2 172:24 |
| widely 33:20 | 213:4 218:7,15 | 136:2,7 143:3 | 226:6 | 173:19 185:14 |
| widows 153:13,16 | 218:18 220:1 | 146:24 147:1,1 | Woulfe-Beile | 188:8,20,23 |
| Wie 2:4 100:14 | 221:21 224:1,9 | 152:8 155:1 | 166:1,2,3 | 193:16 201:9 |
| 179:2 | 225:14 228:14 | 161:19 163:4 | write 169:21 | 216:11 227:19 |
| wife 117:19 | 228:17 230:13 | 165:20 170:9,16 | 267:19 | 236:23 237:20 |
| 215:23 | 230:15,17 | 177:24 198:24 | writers 121:23 | 238:11 250:7,15 |
| wifi 110:11 | 237:20 249:24 | 217:9 226:9 | writing 121:20 | yellow 12:13 |
| wildlife 176:10 | 252:5 262:18 | workable 136:16 | 133:4 150:14 | yesterday 19:15 |
| William 168:12 | witness's 243:1 | workday 110:12 | 151:11 153:11 | 97:15 114:21 |
| 168:12,13,20 | witnessed 118:14 | worked 138:2 | 201:10 267:20 | 231:7 239:16 |
| Williams 3:2 7:22 | 153:8 | 155:2 162:3 | written 51:16 | 252:6 |
| 7:23 29:23,24 | witnesses 5:3 39:7 | 250:7,14 | 87:19,23 102:7 | York 145:24 |
| 30:3,5 31:2 74:8 | 48:11 203:9 | worker 113:7,10 | 169:13 191:6 | young 177:12 |
| 191:20 218:6,6 | 230:22 231:17 | 118:24 137:8 | 211:20 | younger 158:13 |
| 259:8,9 269:17 | 237:1 239:15 | 145:11 151:7 | wrong 28:13 |  |
| 269:18 | 240:3 252:8 | workers 112:24 | 61:20 206:17 | Z |
| Williams' 34:23 | 270:10 | 113:3,5,13 114:1 | wrote 83:12 | ZEIVEL 2:7 |
| willing 199:21 | Wojtkowski | 118:14 119:7 | 170:11 | zero-waste 150:5 |
| Wilmette 4:3 | 172:14,15,16 | 133:19 136:24 | X | Zion 116:4,8 |
| wind 150:6 | woman 170:23 | 137:1,10,11,13 | X | 117:5 |
| 207:15 | women 125:19,20 | 145:7,10,14,16 | Y | 0 |
| window 211:17,20 | 126:12,20 | 145:20 146:8,16 | yard 131:2 150:8 |  |
| wisely $152: 4$ | 137:22,23 | 146:20 147:9 | $\text { yards } 12: 4,6,9$ | 1 |
| wish 166:23 201:8 | 146:24 168:21 | 161:20 165:14 | yards 12:4,6,9 $17: 2319: 5,7$ | $111: 4$ 12:6,7 |
| withdraw 50:10 | 177:12 | 166:10,14,21 | 17:18,19,20 | 23:19 24:24 |
| 262:22 witness $6 \cdot 6,11,14$ | wonderful 20:2 | 167:12 169:24 | 24:18,19,20 25:12 | 27:21 40:9 |
| witness 6:6,11,14 | 108:12 119:14 | workers' 113:17 |  | 72:21 73:22 |
| 6:19 7:15,19,22 | 193:3 230:13 | 114:2 149:1 | 70:8 80:12 96:2 | 92:16 194:12 |
| 8:7,9,11,16,20 | wondering 109:1 | workforce 155:5 | $139: 20 \text { 255:18 }$ | 198:15 211:16 |
| 8:21 9:4,5,7,9 | 109:22 120:7 | 155:20,23 | $263: 11$ | 245:13 27 |
| 9:11,13,14 10:10 | Wood 140:15,16 | working 53:14 | year 111:6,7 | 1-C 44:3 |
| 10:13 14:7,11,16 | 140:18 166:13 | 58:14 110:14 |  | 1-D 44:1,7 |
| 25:20 29:20 | 167:4 168:4 | 114:18 122:5 | $\begin{aligned} & \text { 137:1,4 138:9,10 } \\ & 172: 21 \quad 176: 1 \end{aligned}$ | 1-G 46:9 47:13 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 1-H 53:2 | 125 134:17 | 2 | 217 2:10 3:4,15,21 | 185:18,23 |
| :---: | :---: | :---: | :---: | :---: |
| 1,000 62:6,12 | 13 19:4,6 | 211:4 12:4 17:6 | 217-5722 4:17 | 245:19 |
| 1:00 99:9. | 134 154:22 | 25:16 80:6 | 22 146:13 | 3-H 82:14 |
| 1:15 154:7 | 1355 19:17 | 196:15 245:17 | 22.55 43:3 | $3.13517: 20$ |
| 1:30 162:13 | 14 12:18 42:19 | 2-1 220:14,23 | 22.59(f) 43:4 | 30 96:9 112:16 |
| 1:45 99:6 | 61:6 167:23 | 2-3 219:22 220:17 | 22.59(h) 17:17 | 156:8 166:10 |
| 10 2:21 12:1 15:2 | 198:3,8,10 | 224:7,9 | 22nd 272:13 | 176:12 193:16 |
| 62:7,12 153:9 | 235:11 244:2 | $2.1222: 10$ | 23 80:3 | 227:5,7 |
| 194:12 211:16 | 14-A 42:18 61:7 | 2.2.1 224:11 | 233 2:15 | 30-D 252:15 |
| 234:20 | 14-B 61:21 | 20 139:2 156:8 | 23rd 270:22 | 30-day 167:22 |
| 10-A 184:4 | 14-G 198:13 | $200138: 2$ | 24 80:3 146:13 | 30-plus 95:15 |
| 10-C 186:12 | 14-year-old 176:1 | 2000 112:18 | 24-hour 180:18 | 188:8,20 |
| 10-F 188:9 | 14-year-olds | 20005 4:16 | 25 12:15 119:18 | 30-year 128:6 |
| 100 1:13 | 176:12 | 2007 238:12 | 250 39:3 | 300,000 114:10 |
| 100-plus 174:21 | 1400 4:11 | 2008 169:3 | 257 39:4 238:19 | 30th 1:14 270:20 |
| 100-year 98:9 | 1440 4:16 | 2010 66:11,12 | 261:5,24 264:12 | 270:23,24 |
| 1000 3:14 | 1544:1 66:2 | 2011 144:4 233:23 | 264:19 265:17 | 31 93:18 184:3 |
| 1004 4:2 | 103:24 131:1 | 234:1,10,13 | 266:3,6 | 31-A 255:6,6 |
| 101.171 17:16 | 235:13 | 238:11 | 257.102 17:1 | 311 4:11 |
| $101.606101: 17$ | 15-B 63:16 65:19 | 2012 234:3,21 | 257.50(e) 266:10 | 312 2:16,22 3:9 |
| 102 17:1 | 15-C 65:20 | 235:3 | 266:15 | 4:3,8 |
| 1021 2:8 | 15-minute 100:24 | 2014 166:18 200:9 | $257.53214: 10$ | 32 186:13 188:9 |
| 11 15:2 248:5 | 101:8 | 233:17 | 257.73 29:8 | 256:13 |
| 11:00 76:18 | 150 226:13 | 2015 15:22 39:2 | 258-5500 2:16 | 33 200:4 |
| 11:15 76:8 99:3 | 1693:20 233:13 | 66:14 143:13 | 26 17:5 82:13,14 | 34 208:24 236:23 |
| 11:16 99:7 | 235:15 | 233:20 261:6 | 154:21 254:15 | 35 1:6 4:7 100:7 |
| 110 176:3 177:22 | 16-A 66:3 | 262:1 264:13 | 258:5 | 245:4,10 246:10 |
| 12 13:7 17:21,24 | 1600 4:7 | 265:18 | 26-A 17:8 | 36-inch 207:17 |
| 67:14 89:22 | 17 40:9 235:22 | 2016 46:1 114:16 | 262-5524 2:22 | 3600 2:21 |
| 90:22 188:23 | 17-C 216:5 | 166:13 174:23 | 27 83:24 257:7 |  |
| 236:4 247:23 | 18 108:16 209:2 | $234: 5,19$ | 28 19:24 89:4 | 4 |
| 248:2 260:6,14 | 247:24 248:4 | 2017 234:8 | 233:6 | 4 10:14 11:4 13:3 |
| 261:1 | 252:14 260:9,17 | 2018 177:15 | 282-9119 4:3 | $4-8221: 5$ |
| 12-A 242:1 | 261:3 | 2019 130:16 | 28th 20:17 21:8 | 4-9 220:17,19,21 |
| 12-B 15:2 67:15 | 18-B 200:6 209:24 | 234:24 235:5,12 | 21:17 23:19 | 221:1,5 |
| 242:2 243:12 | 18-inch 207:14 | 235:13,15 236:4 | 25:17 233:4 | 4-A 84:1 |
| 12-C 69:22,23 | 18th 3:8 | 2020 1:14 235:18 | 29th 114:21 | 4.4.2 23:7 |
| 12:00 76:18 12.15 105.15 | $19255: 5,7256: 12$ | 271:12 272:14 |  | $\begin{array}{\|l\|} \hline \text { 4.5 22:14 } \\ \mathbf{4 : 0 0} 258: 17 \end{array}$ |
| 12:15 105:15 | 261:6 265:18 | $2027 \text { 114:23 }$ | $\frac{3}{312.7 .819}$ | 4:00 258:17 |
| 12:30 123:6 | 19-A 260:8,14,20 | 205 3:14 | $3 \text { 12:7,8 19:5,7 }$ | 4:10 258:20,24 |
| 12:45 132:4 | 260:24 261:3 | 20s 124:13 | $\begin{aligned} & \text { 21:16 24:19,20 } \\ & 24: 24,2425: 1,4 \end{aligned}$ | $\begin{array}{\|l} \mathbf{4 : 4 0} 271: 10 \\ \mathbf{4 0} 7: 8,939: 3 \end{array}$ |
| 1200 220:12 | $19276 \text { 2:9 }$ $1959 \text { 147:23 }$ | 21 184:18 | $\begin{aligned} & 24: 24,2425: 1,4 \\ & 25: 1233: 10 \end{aligned}$ | 407:8,9 39:3 156:8 227:5,7 |
| 223: | $\begin{array}{\|l} \text { 1959 147:23 } \\ \text { 1st 178:20 } \end{array}$ | 21-B 244:3 | 25:12 33:10 46:9 47:13 53:2 | 266:6,10,14 |
| 122 245:22 | 1st 178.20 |  | 184:16,23 185:9 | 40,000 114:7 |

L.A. Court Reporters, L.L.C.

312-419-9292

Electronic Filing: Received, Clerk's Office 10/23/2020
September 30, 2020
Page 323

| 41 9:17 10:5 | 611:1,4 13:21 | $7611: 15$ | 901 263:13 |
| :---: | :---: | :---: | :---: |
| 415 17:17 | 19:1 20:17 21:6 | 765 245:22 |  |
| 42 9:20 10:5 | 72:21 73:22 | 782-5544 2:10 |  |
| 43 9:23 10:3,5 | 101:4 112:8 | 785 4:17 |  |
| 4340 3:20 | 257:8 258:8 | 789-2116 3:4 |  |
| 44 20:1,3 198:2,6 | 6-A 19:1 | 8 |  |
| 198:7 | 6-B 19:2 | $\frac{8}{811.1128 .10}$ |  |
| 449 263:13 | $60148: 10$ 226:14 | 8 11:11 28:10 |  |
| 45 20:21,23 76:9 | 600-volt 156:5 | 54:10 |  |
| 450 263:13 | 600,000 134:18 | 8-C 54:11 |  |
| 46 21:24 22:1 | 60091 4:3 | 80 173:2 |  |
| 47 24:5,6 | 60601 4:7 | 80-year 98:8 |  |
| 48 25:22,23 | 60602 3:9 | 800 3:3 4:12 |  |
| $4937: 11,12$ | 60603 2:21 | 814-2087 3:9 |  |
| 4th 3:3 | 60606 2:16 4:12 | $8311: 21$ |  |
| 5 | 60s 157:10 | 840 239:7 840.116(a) 244:5 |  |
| $511: 1$ 19:14,24 | $62090: 8,22$ | 244:20 |  |
| 22:15 24:17,24 | 246:11,19 | 845 1:6 13:23 |  |
| 55:13 103:7 | $\mathbf{6 2 0 . 4 1 0} 245: 4,10$ | 89:18 100:7 |  |
| 201:8,13 211:16 | $\mathbf{6 2 0 . 4 2 0} 89: 10,22$ | 204:7 242:6,20 |  |
| 263:20 | $90: 3$ | 242:21 254:8,20 |  |
| 5-D 66:7,7,8 | 62705 3:15 | 845.120 214:12 |  |
| 5-E 89:5 | 62711 3:21 | $\mathbf{8 4 5 . 1 7 0} 244: 7$ |  |
| 5-F 257:10, 11,14 | 62757 3:3 | 246:4 |  |
| 257:23 | 62794 2:9 | 845.170(b) 246:6 |  |
| 5:30 178:20 271:8 | $\mathbf{6 5 1 1 7 : 5 1 2 1 : 1 5}$ | $\mathbf{8 4 5 . 4 2 0} 39: 16$ |  |
| 271:13 | 216:1,3,4 | $845.60039: 12$ |  |
| $5037: 2438: 1$ | 66 216:5 | 845.660 39:13 |  |
| 105:23 156:9 | 6600 2:15 | $845.77039: 18$ |  |
| 500 114:11 | 673-6500 4:8 | 845.770(a) 198:15 |  |
| $\begin{gathered} \mathbf{5 1} 11: 1173: 15,17 \\ 73: 2174: 1 \end{gathered}$ | 693:8 | $\begin{aligned} & \text { 845.770(a)(1) } \\ & 197: 5 \end{aligned}$ |  |
| 5277:5,6 | 7 | 8th 222:20 |  |
| 528-3674 3:21 | 7 19:1,2 68:18 | $9$ |  |
| 53 81:24 82:1 | 103:7 194:13 | $\frac{9}{926 \cdot 1541.761 \cdot 11}$ |  |
| $54197: 13,14$ | 7-C 28:9 29:2,3 | $\begin{gathered} 926: 15 \text { 41:7 61:11 } \\ 220: 9241: 24 \end{gathered}$ |  |
| 544-8491 3:15 | 7-foot 211:10 | 220:9 241:24 |  |
| 55 203:14 211:23 | 7:00 178:21 271:8 | 9-040 1:13 $\mathbf{9 - 1 1} 145.22149 .1$ |  |
| 232:6,11 | $70156: 9$ | 9-11 145:22 149:1 |  |
| $56232: 8,11$ | 70s 238:17 | 9-A 26:15 |  |
| 57 232:9,11 | 71 102:16 | 9-B 41:6 203:15 |  |
| 58 232:24 | 74 154:24 | 203:19 212:1 |  |
| 584-6460 4:12 | 74-year-old | $\begin{aligned} & \text { 9-F 93:19 } \\ & \text { 9:00 1:15 } \end{aligned}$ |  |
| 6 | 10 | 90 148:6 189:6,9 |  |

L.A. Court Reporters, L.L.C.

312-419-9292


[^0]:    L.A. Court Reporters, L.L.C.

[^1]:    L.A. Court Reporters, L.L.C.

[^2]:    L.A. Court Reporters, L.L.C.

[^3]:    L.A. Court Reporters, L.L.C.

[^4]:    L.A. Court Reporters, L.L.C.

[^5]:    L.A. Court Reporters, L.L.C.

[^6]:    L.A. Court Reporters, L.L.C.

[^7]:    L.A. Court Reporters, L.L.C.

[^8]:    L.A. Court Reporters, L.L.C.

[^9]:    L.A. Court Reporters, L.L.C.

[^10]:    L.A. Court Reporters, L.L.C.

[^11]:    L.A. Court Reporters, L.L.C.

[^12]:    L.A. Court Reporters, L.L.C.

[^13]:    L.A. Court Reporters, L.L.C.

[^14]:    L.A. Court Reporters, L.L.C.

[^15]:    L.A. Court Reporters, L.L.C.

[^16]:    L.A. Court Reporters, L.L.C.

[^17]:    L.A. Court Reporters, L.L.C.

[^18]:    L.A. Court Reporters, L.L.C.

[^19]:    L.A. Court Reporters, L.L.C.

[^20]:    L.A. Court Reporters, L.L.C.

[^21]:    L.A. Court Reporters, L.L.C.

[^22]:    L.A. Court Reporters, L.L.C.

[^23]:    L.A. Court Reporters, L.L.C.

[^24]:    L.A. Court Reporters, L.L.C.

[^25]:    L.A. Court Reporters, L.L.C.

[^26]:    L.A. Court Reporters, L.L.C.

[^27]:    L.A. Court Reporters, L.L.C.

[^28]:    L.A. Court Reporters, L.L.C.

[^29]:    L.A. Court Reporters, L.L.C.

[^30]:    L.A. Court Reporters, L.L.C.

[^31]:    L.A. Court Reporters, L.L.C.

[^32]:    L.A. Court Reporters, L.L.C.

[^33]:    L.A. Court Reporters, L.L.C.

[^34]:    L.A. Court Reporters, L.L.C.

[^35]:    L.A. Court Reporters, L.L.C.

[^36]:    L.A. Court Reporters, L.L.C.

[^37]:    L.A. Court Reporters, L.L.C.

[^38]:    L.A. Court Reporters, L.L.C.

[^39]:    L.A. Court Reporters, L.L.C.

[^40]:    L.A. Court Reporters, L.L.C.

[^41]:    L.A. Court Reporters, L.L.C.

[^42]:    L.A. Court Reporters, L.L.C.

[^43]:    L.A. Court Reporters, L.L.C.

[^44]:    L.A. Court Reporters, L.L.C.

[^45]:    L.A. Court Reporters, L.L.C.

[^46]:    L.A. Court Reporters, L.L.C.

[^47]:    L.A. Court Reporters, L.L.C.

[^48]:    L.A. Court Reporters, L.L.C.

[^49]:    L.A. Court Reporters, L.L.C.

[^50]:    L.A. Court Reporters, L.L.C.

[^51]:    L.A. Court Reporters, L.L.C.

[^52]:    L.A. Court Reporters, L.L.C.

[^53]:    L.A. Court Reporters, L.L.C.

[^54]:    L.A. Court Reporters, L.L.C.

