

ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:

PROPOSED AMENDMENTS TO GROUNDWATER                      Docket No.  
QUALITY (35 ILL. ADM. CODE 620)                      R22-18(A)  
FOR 35 ILL. ADM. CODE 811, 814

HEARING

DATE:                      Tuesday, September 16, 2025  
TIME:                      10:30 a.m.  
BEFORE:                      Hearing Officer Chloe Salk  
LOCATION:                      Michael A. Bilandic Building  
                                    160 North LaSalle Street, Room N502  
                                    Chicago, IL 60601  
REPORTED BY:                      Haley Goodwin  
JOB NO.:                      7543763

A P P E A R A N C E S

ON BEHALF OF PROPOSED AMENDMENTS TO GROUNDWATER  
QUALITY (35 ILL. ADM. CODE 620) FOR 35 ILL. ADM. CODE  
811, 814:

VANESSA HORTON, ESQUIRE

Illinois Pollution Control Board - IPCB

60 East Van Buren Street, Suite 630

Chicago, IL 60605

vanessa.horton@illinois.gov

(312) 814-3620

ALSO PRESENT:

Barbara Flynn Currie, Chair of the Board

Michelle Gibson, Board Member

Jennifer Van Wie, Board Member

Michael Makowski, Board Member (by  
videoconference)

Angela Tin, Board Member

Anand Rao, Chief Environmental Officer

Essence Brown, Environmental Scientist

Marie Tipsord, General Counsel (by  
videoconference)

A P P E A R A N C E S (Cont'd)

ALSO PRESENT (Cont'd):

Eric Ballenger, Senior Manager Hydrogeology -  
National Waste & Recycling Association (by  
videoconference)

Brad Hunsberger, Vice President/Director of  
Hydrogeological Services - Land & Lakes Company  
(by videoconference)

Ann Zwick, Environmental Attorney - Taft Law Firm  
(by videoconference)

Scott B. Sievers, Attorney - National Waste &  
Recycling Association (by videoconference)

Claire Meyer, Attorney - National Waste &  
Recycling Association (by videoconference)

Joshua Rhoades, Permit Section Manager - Illinois  
Environmental Protection Agency (by  
videoconference)

Trevor Dell'Aquila, Assistant Counsel - Illinois  
Environmental Protection Agency (by  
videoconference)

Nick San Diego, Deputy General Counsel - Illinois  
Environmental Protection Agency (by  
videoconference)

A P P E A R A N C E S (Cont'd)

ALSO PRESENT (Cont'd):

Jacqueline Cooperider, Senior Public Service  
Administrator - Illinois Environmental Protection  
Agency (by videoconference)

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24

I N D E X

WITNESSES:	DX	CX	RDX	RCX
ERIC BALLENGER				
By Mr. Rao	13			
By Ms. Tipsord	19			
By Ms. Tin	20			
BRAD HUNSBERGER				
By Mr. Rao	29			
JOSHUA RHOADES				
By Ms. Zwick	33			
By Mr. Sievers	49			

## E X H I B I T S

NO.	DESCRIPTION	ID/EVD
Hearing:		
Exhibit 1	Pre-Filed Testimony from National Waste & Recycling Association	12/12
Exhibit 2	Pre-Filed Answers from National Waste & Recycling Association	12/12
Exhibit 3	Pre-Filed Answers from Land & Lakes Company	28/28
Exhibit 4	Pre-Filed Testimony from Land & Lakes Company	29/29
Exhibit 5	Pre-Filed Answers from Illinois Environmental Protection Agency	32/32

P R O C E E D I N G S

THE HEARING OFFICER: All right. We will start seeing as it's 10:30. Good morning and welcome to this Illinois Pollution Control Board Hearing. My name is Chloe Salk, and I am the hearing officer for this rulemaking proceeding entitled "In The Matter Of: Proposed Amendments to Groundwater Quality (35 Illinois Administrative Code 620)."

The board docket for this rulemaking is R22-18(A). Also present today from the board are Chair of the Board Barbara Flynn Currie, Board Member Michelle Gibson.

In Springfield via videoconference we have Board Member Michael Makowski -- who seems to have just stepped out -- and Board Member Angela Tin.

Present today from the board staff are fellow Hearing Officer Attorney Advisor Vanessa Horton, Chief Environmental Scientist [sic] Anand Rao, and Environmental Scientist Essence Brown. And in the audience today we have General Counsel Marie Tipsord. This hearing is governed by the board's procedural rules under Section 102.246.

Of those rules, all information that is relevant and is not repetitious or privileged will be

1 admitted by the hearing officer into the record.

2 Please bear in mind that any questions  
3 posed today by the board and its staff are intended  
4 solely to help develop a clear and complete record for  
5 the board's decision and do not reflect any decision  
6 on the proposal, testimony, or other questions.

7 For the sake of our court reporter,  
8 please speak clearly and avoid speaking at the same  
9 time as another person so that we can help produce a  
10 clear transcript. If you are asking a question,  
11 please state your name and the organization you  
12 represent prior to any questions.

13 Also, in talking about sections of the  
14 code, please spell out the section letter, such as  
15 620.101D as in dog.

16 Court Reporter, please feel the -- free  
17 to stop me or anyone at any point if we are going too  
18 fast, talking too softly, or if you need something  
19 repeated.

20 There is a notepad to sign up for  
21 public comments if you wish. So if there are any  
22 members of the public in person here today, please go  
23 ahead and write your name on the list. Also, anyone  
24 can submit written public comments on the board's



1 Clerk's Office Online System or COOL. The board  
2 weighs oral and written public comments equally.

3 Notice for this hearing was posted on  
4 August 14, 2025, in The Chicago Sun-Times; and on  
5 August 15, 2025, in The State Journal-Register.

6 On January 6, 2022, the board requested  
7 pursuant to Section 27B -- as in boy -- of the  
8 Environmental Protection Act that the Department of  
9 Commerce and Economic Opportunity, or DCEO, conduct a  
10 study on the economic impact of the proposed rules.

11 The letter requested that DCEO provide  
12 their response by February 20, 2022. The board has  
13 received no response from DECEO [sic].

14 On December 7, 2021, the  
15 environmental -- Illinois Environmental Protection  
16 Agency, or IEPA, proposed that the board amend Part  
17 620 of its groundwater quality regulations. On March  
18 20, 2025, the board adopted amendments to Part 620,  
19 including groundwater quality standards for six  
20 per- and polyfluoroalkyl substances or PFAS.

21 On January 23, 2025, the board opened  
22 this subdocket to explore the economic reasonableness  
23 and technical feasibility of applying the Part 620  
24 PFAS standards to Part 811 and 814 landfills.

1           On May 15, 2025, the board directed any  
2 party to provide information and comment on relevant  
3 cost information and also welcomed any proposed  
4 amendments to Part 811 and 814 that would address  
5 concerns with the adoption of the Part 620 standards.

6           The board received pre-filed testimony  
7 from the National Waste & Recycling Association, or  
8 NWRA, and Land & Lakes Company. The board also  
9 received a comment from IEPA. On August 6, 2025, the  
10 hearing officer issued a set of non-exhaustive written  
11 questions. On August 11th, Land & Lakes Company,  
12 IEPA, and NWRA filed written responses to these  
13 questions.

14           On September 10th, the hearing officer  
15 issued a set of follow-up written questions directed  
16 to IEPA. On September 15th, IEPA filed written  
17 responses to these questions. These responses were  
18 not required, but they are very helpful in expediting  
19 the hearing, and the board appreciates the time and  
20 effort of IEPA staff and counsel.

21           As to the order of today's proceedings,  
22 we'll first call Eric Ballenger with NWRA, then Brad  
23 Hunsberger with Land & Lakes Company, and then IEPA.  
24 After being duly sworn in, the pre-filed testimony

1 will be entered into the record as if read under  
2 Section 102.424F -- as in foxtrot -- of the board's  
3 procedural rules.

4 We will then turn to questions for each  
5 witness. After finishing with witness questioning,  
6 I'll ask if there are any comments from members of the  
7 public. I anticipate taking a ten-minute break around  
8 10:30 a.m. if we're still going by then --

9 MS. BROWN: You mean 11:30 --

10 MS. HORTON: Yeah --

11 THE HEARING OFFICER: Oh, sorry.

12 11:30, my bad -- and then breaking for  
13 an hour from -- lunch from noon to 1 p.m. If we  
14 haven't finished by then, we'll take an afternoon  
15 break around 3 p.m. and end around 5 p.m.

16 Okay. Are there any questions about  
17 the order of today's proceeding? Okay. Hearing none,  
18 we'll move on to swearing in the witnesses. All  
19 right. We will start with Eric Ballenger with NWRA.

20 Would the court reporter please swear  
21 in the witness.

22 THE REPORTER: Okay.

23 Could you please raise your right hand?

24 //

1 WHEREUPON,

2 ERIC BALLENGER,  
3 called as a witness and having been first duly sworn  
4 to tell the truth, the whole truth, and nothing but  
5 the truth, was examined and testified as follows:

6 THE REPORTER: Thank you.

7 THE HEARING OFFICER: Okay. As  
8 mentioned earlier, the pre-filed testimony is entered  
9 into the record as if read and is entered as Hearing  
10 Exhibit 1.

11 (Hearing Exhibit 1 was marked for  
12 identification and received into  
13 evidence.)

14 THE HEARING OFFICER: Since NWRA  
15 previously pre-filed answers, we will also enter those  
16 into the record as if read and enter them as Hearing  
17 Exhibit 2.

18 (Hearing Exhibit 2 was marked for  
19 identification and received into  
20 evidence.)

21 THE HEARING OFFICER: So we'll go up to  
22 follow-up questions. Does anyone from non-board  
23 entities have any follow-up questions? Okay. Seeing  
24 none, we'll go on to any board follow-up questions?

1 MR. RAO: Yeah, we had a couple of  
2 questions directed generally to both witnesses.

3 MS. TIPSORD: Chloe?

4 THE HEARING OFFICER: Yes --

5 MS. TIPSORD: Chloe, could you move the  
6 microphone closer to Anand? We can't hear him.

7 THE HEARING OFFICER: Yes.

8 THE WITNESS: Yeah --

9 MR. RAO: Can you hear me now,  
10 Marie?MS. TIPSORD: Yes. Thank you.

11 MR. RAO: Okay --

12 THE WITNESS: Thanks.

13 DIRECT EXAMINATION

14 BY MR. RAO:

15 Q The first question is would a phased  
16 implementation of Part 620 standards be feasible for  
17 Part 811 and 814 landfills?

18 A Are you asking if by adding those rules it  
19 would be feasible for 811 and 814 sites to comply?

20 Q Yes.

21 A Yes, it would be feasible.

22 Q Do you have any suggestion as to how a  
23 phased implementation would occur? Or what NWRA  
24 thinks -- you know, how these standards could be

1 implemented for -- for 811 and 814 landfills?

2 A Well, I guess it depends  
3 on -- there -- there have been two different  
4 discussions on how PFAS would be added to our  
5 programs. There seems to be some contradictory  
6 statements on how they'd be -- would be applied.

7 Our assumption would be that the 620 -- that  
8 PFAS would be added to -- eventually added to our  
9 detection groundwater monitoring programs as well as  
10 our leachate sampling programs.

11 As part of IEPA testimony, they referenced  
12 that the sampling for PFAS would be added only if a  
13 particular monitoring well goes in an assessment  
14 program, but that we would have to monitor for PFAS as  
15 part of an initial background sampling program for our  
16 site.

17 But as I stated, there is some confusion on  
18 behalf of NWRA whether it is just going to be added as  
19 part of an assessment program or as referenced  
20 in -- excuse me, but in reference -- as referenced in  
21 the IEPA's response.

22 I'm -- I'm trying to see  
23 which -- these -- this is IEPA's response to questions  
24 that were raised in May -- on May 15th.

1           And as part of their response, they state  
2     "If PFAS constituents are detected in the leachate,  
3     then those PFAS constituents would be required to be  
4     added to a facility semi-annual detection monitoring  
5     program unless a demonstration is made and approved by  
6     IEPA."

7           So that's a little bit contradictory to  
8     stating that it would only be added to an assessment  
9     program if basically a well goes into assessment, then  
10    it would be added. So there is some confusion on  
11    behalf of our organization on whether or not PFAS will  
12    be added to a program.

13           And it makes a big difference for us because  
14    adding a -- the costly PFAS monitoring to a -- an  
15    entire detection program for the lifetime of the  
16    facility and in post-closure here is much different  
17    than just adding it as part of any assessment that may  
18    or may not occur.

19           Q     Okay. In Agency's most recent responses to  
20    Board questions, which was filed yesterday, the agency  
21    said that it still intends to do a rulemaking for  
22    landfills in terms of implementing these PFAS  
23    standards. Do you think that rulemaking would be the  
24    place for these kinds of issues to be addressed?

1           A     Are you referring to just 811, 814? Or is  
2     807 also included in that?

3           Q     I think now that, you know, the issues  
4     related to 8 -- 807 has also been raised, I'd assume  
5     all landfills under all three parts should be  
6     addressed.

7           A     I certainly think -- and I'm only speaking  
8     for the 811/814 portion of it. I think certainly as  
9     part of any new rulemaking procedure that -- that  
10    includes our -- you know, includes the industry, there  
11    certainly could be discussions and -- and a better  
12    understanding of -- of how -- how PFAS monitoring will  
13    be implemented.

14               And I think it would be important to have  
15    that discussion certainly on how it -- again, on how  
16    it would be implemented and what particular program it  
17    would go under.

18           Q     Okay. Would there be any confusion in terms  
19    of how PFAS standards would be implemented if the  
20    current exemptions in 620 are removed before changes  
21    are made to the landfill rules?

22           A     If -- well, that's -- that's a great  
23    question. If the -- if the exemption is removed, then  
24    all -- as far as I understand, all of our 811 and 814



1 facilities will immediately have to begin a PFAS  
2 monitoring program at a minimum for background  
3 analysis to get background statistics based on that.

4 And then we would also -- it would also  
5 affect leachate analysis as well as future groundwater  
6 impact assessment modeling efforts for any particular  
7 facility that is currently going through any sort of  
8 expansion or even a greenfield-type site.

9 So -- or in during five-year reviews in  
10 which we have to update the GIA, this will have an  
11 immediate effect on that process if -- if the  
12 exemption is removed prior to having any discussion  
13 about rule changes. So I -- I -- it is my belief that  
14 there will be an immediate effect.

15 Q Thank you for that clarification. We have  
16 one more question. Are you aware of any other state  
17 landfill programs where PFAS have been implemented on  
18 a -- you know, with a compliance schedule for  
19 landfills?

20 A So for the states that I am affiliated with,  
21 I work -- that I work with, none of the states that I  
22 currently work with, and especially in Region 5,  
23 currently have a PFAS monitoring program that is part  
24 of the detection monitoring program.

1           And then when -- when I say "detection," I  
2       mean a general -- the general monitoring program that  
3       goes on for the landfill that would have to be done  
4       either semi-annually or quarterly per the permit.

5           So there are some states, for example  
6       Michigan and Minnesota, that have ranked particular  
7       sites that may or may not be concerned for PFAS, and  
8       they have added PFAS to that particular program. But  
9       there is not as far as I'm aware of any statewide  
10      monitoring program for PFAS in the states that I work  
11      in as of yet.

12           Q     Okay. Thank you. You said that you're not  
13      speaking for the Part 807 landfills. So would  
14      Mr. Hunsberger have anything to say about --

15                   THE HEARING OFFICER: We'll get there,  
16      we'll get there --

17                   MS. HORTON: He hasn't been sworn in --

18                   MR. RAO: Huh?

19                   MS. HORTON: He hasn't been sworn in  
20      yet --

21                   THE HEARING OFFICER: Yeah, we'll get  
22      there in a minute, Anand.

23                   MR. RAO: Oh. Okay. Oh. I thought  
24      they were answering as a panel.

1 THE HEARING OFFICER: No. We'll --

2 MR. RAO: Okay --

3 THE HEARING OFFICER: -- just have him  
4 sworn in next.

5 MR. RAO: Sorry about that.

6 THE HEARING OFFICER: No, it's okay.  
7 Will you pass over the microphone --

8 MR. RAO: Okay --

9 THE HEARING OFFICER: -- just so they  
10 can hear me --

11 MS. TITSORD: Chloe?

12 THE HEARING OFFICER: Yes?

13 MS. TIPSORD: Well, I just -- I have one  
14 quick question.

15 DIRECT EXAMINATION

16 BY MS. TIPSORD:

17 Q You mentioned the states you work for.  
18 Could you specify -- to the extent you're aware of can  
19 you specify what states those are?

20 A Yeah. And if -- if you want, I can just  
21 give you a brief -- brief background on who I am and,  
22 like, what I -- so I -- I represent  
23 Republic -- Republic Services. I'm a -- a  
24 hydrogeologist for them, and -- and I work in a number

1 of different states.

2 And I can give you -- so for -- so the  
3 states that I currently work in in terms of handling  
4 groundwater compliance, leachate compliance -- I also  
5 work on Superfund sites and remedial  
6 activities -- would include Illinois, of course;  
7 Indiana; Michigan; Minnesota; Ohio; Missouri;  
8 Oklahoma; Nebraska; Kansas; and Texas.

9 Q Thank you.

10 A I hope I have all but yes, so --

11 MS. TIPSORD: Thank you.

12 THE HEARING OFFICER: Okay.

13 Angela, did you have a question?

14 MS. TIN: Yes --

15 THE HEARING OFFICER: Yeah, go ahead.

16 DIRECT EXAMINATION

17 BY MS. TIN:

18 Q So let me ask you again. On these other  
19 states, the -- the PFAS monitoring is not in detection  
20 monitoring, it's in the assessment monitoring; is that  
21 right --

22 A Well, each -- each state obviously does  
23 things different, but there is no statewide program in  
24 those states that requires landfills to monitor for

1 PFAS on a detection monitoring basis. There are  
2 individual sites that have it based on whether impacts  
3 have been identified or based on ranking systems.

4 For example, in Minnesota they've gone  
5 through the process of ranking sites that are -- that  
6 are more of a concern than others based on liner  
7 design, based on no liners, based on whether or not  
8 heavy PFAS-laden waste has been distributed in those  
9 facilities.

10 Michigan has added kind of a ranking process  
11 as well or has requested PFAS monitoring -- again, a  
12 request, not a -- not a rule at this point. So some  
13 sites have complied, other sites have not added that  
14 to their program yet. So there's no statewide  
15 consistent program that has been added --

16 Q Thank you --

17 A -- for those states that I worked in at  
18 least.

19 THE HEARING OFFICER: Okay. Were there  
20 any other questions? No? Okay. We'll go on to the  
21 next witness.

22 Thank you very much.

23 So we will have Brad Hunsberger with  
24 Land & Lakes Company next.

1                   Would the court reporter please swear  
2     in the witness?

3                   THE REPORTER:   Okay.

4                   Please raise your right hand

5     WHEREUPON,

6                   BRAD HUNSBERGER,

7     called as a witness and having been first duly sworn  
8     to tell the truth, the whole truth, and nothing but  
9     the truth, was examined and testified as follows:

10                  THE REPORTER:   Thank you so much.

11                  THE HEARING OFFICER:   Okay.   So we will  
12     also enter Land & Lakes pre-filed testimony into the  
13     record as if read --

14                  MS. HORTON:   They have something that  
15     they're going to say --

16                  THE HEARING OFFICER:   Oh, sorry --MS.

17                  TIPSORD:   Chloe --

18                  THE HEARING OFFICER:   Yes?

19                  MS. TIPSORD:   Sorry, but you're going  
20     to have to stop and first hear -- Mr. Hunsberger would  
21     like to give a brief summary of his testimony.

22                  THE HEARING OFFICER:   Okay.

23                  Yeah, if you could just keep it to  
24     under five minutes, please.

1 MS. TIPSORD: Yes --

2 THE WITNESS: All right. I am Brad  
3 Hunsberger. I'm the vice president and director of  
4 hydrogeological services with Andrews Engineering.

5 Andrews is a civil and environmental  
6 engineering firm located in Springfield, founded by  
7 the IEPA's first manager of the permit section of the  
8 Division of Land Pollution Control.

9 I have a Bachelor of Science degree in  
10 Geology, and I'm a professional geologist in the State  
11 of Illinois. I'm responsible for management and  
12 oversight of geologic- and hydrogeologic-related  
13 services for the company.

14 I've been at Andrews for 38 years, in  
15 which the vast majority of projects related to solid  
16 waste and compliance. I'm providing testimony on  
17 behalf of Land & Lakes Company. Land & Lakes is the  
18 operator of Land & Lakes 1 and 2 located in Cook  
19 County, Illinois. It's been closed since 1994, over  
20 30 years ago.

21 It currently is in post-closure care.  
22 It's regulated pursuant from the Illinois  
23 Administrative Code Part 807. The Part 807 landfills  
24 are existing landfills that generally ceased accepting

1 waste on or before October 9, 1993, the date the Part  
2 811 regulations became effective.

3 In my experience, Part 807 sites were  
4 constructed, operated, and closed in the same manner  
5 as the Part 814, Subpart D sites -- one of the  
6 differences being the close-by date requirements and  
7 then the length of the post-closure care period.  
8 Post-closure care and monitoring are typically the  
9 same between Part 807 and Part 814, Subpart D sites.

10 The board should exempt Part 807  
11 landfills from compliance with the Part 620 PFAS  
12 standards because it is not economically reasonable to  
13 these old landfills to certify completion -- virtual  
14 connectivity interruption --

15 THE REPORTER: Oh, that means he's  
16 breaking up. Can you --

17 MR. RAO: Yeah --

18 THE HEARING OFFICER: Sorry. Could you  
19 go back like two sentences, please? You were breaking  
20 up a little bit.

21 THE WITNESS: Okay.

22 The board should exempt our 807  
23 landfills from compliance with the Part 620 PFAS  
24 standards because it is not economically reasonable



1 for these old landfills to certify completion of post  
2 closure if compliance with the new PFAS standards are  
3 now added as a necessary -- to the certification.

4 THE REPORTER: Why is it --

5 THE HEARING OFFICER: Okay. Breaking  
6 up on --

7 MS. TIPSORD: You're breaking up  
8 again --

9 THE REPORTER: Move the mic --

10 MR. RAO: Maybe --

11 THE HEARING OFFICER: Could we  
12 move -- sorry, could we move the microphone maybe  
13 closer to him? It seems to be breaking up a little  
14 bit. Okay. Great. And maybe just talk a little bit  
15 slower if you don't mind too please? Just so we don't  
16 get any break-up-over-the-internet issues.

17 THE WITNESS: Yes.

18 THE HEARING OFFICER: Okay. Thank you.

19 THE WITNESS: All right.

20 The board should exempt Part 807  
21 landfills from compliance with the Part 620 PFAS  
22 standards because it is not economically reasonable  
23 for the old landfills to certify completion of post  
24 closure if compliance with the new PFAS standards are

1 now added as a necessary condition to the  
2 certification of completion of post-closure repair.

3 Part 807 landfills, like Part 811 and  
4 814 landfills, are subject to the Part 620 quality  
5 standards absent the exemption.

6 This has been confirmed by the board  
7 and the Illinois Appellate Court. Part 807 landfills  
8 must demonstrate the groundwater in the vicinity of  
9 the site meets new part 620 PFAS standards for  
10 background concentrations to certify the post-closure  
11 care period has ended.

12 There are 97 Part 807 landfills that  
13 have not completed the post-closure care period. Of  
14 these, 34 are closed but not certified closed, and 63  
15 are not -- are -- are in post-closure care.

16 My written testimony includes a list of  
17 landfills provided by the Illinois EPA from a Freedom  
18 of Information Act request. Some of the landfills are  
19 publicly owned or orphaned sites with no owner  
20 managing site.

21 Part 807 landfills generally do not  
22 have composite liners or leachate collection systems.  
23 Part 807 landfills ceased accepting waste over 30  
24 years ago and are not generating revenue.

1 Part 807 sites were designed,  
2 developed, and closed in accordance with regulations  
3 and policies applicable -- that time. None of the  
4 Part 807 landfills monitor for PFAS constituents.

5 To impose new extremely low PFAS  
6 groundwater quality standards as a condition of post  
7 closure now after the fact will virtually guarantee  
8 most of these sites, if not all of them, will never be  
9 able to certify that post-closure care has been  
10 completed.

11 I would not be surprised if many owners  
12 of the Part 807 landfills simply walk away leaving the  
13 sites to the State of Illinois to manage.

14 My testimony includes responses to the  
15 board's questions as they pertain to 807 landfills,  
16 including cost estimates for PFAS monitoring and  
17 corrective action for typical 807 landfills. Those  
18 were included in Tables 1 and 2.

19 The cost will likely have no  
20 termination date given the extremely low standards,  
21 pervasiveness of the PFAS constituents, design of the  
22 landfills, and lack of economic resources to treat  
23 PFAS.

24 807 sites have been included in the 620

1 PFAS discussions since the inception of this rule,  
2 including questions to and discussions with agency  
3 personnel prior to the initial filing and inclusion  
4 with pre-filed material within the docket and  
5 subsequent testimony.

6 807 sites have significant similarities  
7 to 814 Subpart D sites that are currently exempt from  
8 the PFAS standards. It is my opinion that the 807  
9 sites should be included in the exemption of 620.410F  
10 and 620.420E. Thank you.

11 THE HEARING OFFICER: Okay. Thank you.  
12 So we will enter your pre-filed answers into the  
13 record as if read and enter them as Hearing Exhibit  
14 Number 3.

15 (Hearing Exhibit 3 was marked for  
16 identification and received into  
17 evidence.)

18 THE HEARING OFFICER: And we will go to  
19 any follow up --

20 Yes?

21 MS. HORTON: Enter his testimony.

22 THE HEARING OFFICER: You want that  
23 too?

24 MS. TIPSORD: Yes --

1 THE HEARING OFFICER: Okay.

2 Oh, and we will also enter in your  
3 pre-filed testimony as Hearing Exhibit Number 4.

4 (Hearing Exhibit 4 was marked for  
5 identification and received into  
6 evidence.)

7 THE HEARING OFFICER: So yes, as  
8 previously mentioned, we will go straight to follow-up  
9 questions if there are any.

10 MR. RAO: Yeah, I just had one  
11 question, which I --

12 THE HEARING OFFICER: Wait one second,  
13 Anand.

14 MR. RAO: Oh.

15 DIRECT EXAMINATION

16 BY MR. RAO:

17 Q Yeah, I just had one follow-up question, and  
18 this was the question I asked earlier about 811 and  
19 814. If Part 8 -- 807 landfills were not exempted  
20 from Part 620, do you think that a phased  
21 implementation would help Part 807 landfills comply  
22 with these standards?

23 A Did all that come through?

24 MS. TIPSORD: Do you understand the

1 question?

2 THE WITNESS: Can -- can you repeat  
3 that question, please?

4 BY MR. RAO:

5 Q Yeah. Can you hear me now?

6 A I believe so.

7 Q Okay. What I was asking was if Part 807  
8 landfills were not exempted from Part 620 standards,  
9 do you believe a phased implementation would be  
10 beneficial for part 807 landfills?

11 A I'm not sure how that would work because  
12 right now the PFAS limits would be added to the annual  
13 list that's sampled on second quarter.

14 And depending upon what the results were, if  
15 they exceeded, then background concentrations would  
16 need to be derived to justify that the -- are  
17 representative of what the facility is contributing to  
18 the groundwater. Subsequent to that, then we'd go  
19 through the assessment process and corrective action.  
20 So I'm not sure if that answers your question.

21 Q It does. As a follow-up, if Part 807  
22 landfills are required to monitor for PFAS going  
23 forward, do you think that monitoring results  
24 in -- will help make a better assessment as to what

1 the implications are of these PFAS  
2 standard -- standards?

3 A Of the implications? I -- yeah, I'm not  
4 sure that I understand that question --

5 Q No. What I was saying was would it be  
6 helpful to have some monitoring data to see what  
7 exactly is going on at these landfills before jumping  
8 to conclusion that exemption is the only way to go?

9 A I do believe that would be helpful.

10 MR. RAO: Okay. Thank you.

11 THE HEARING OFFICER: Okay. Are there  
12 any other questions?

13 Any in Chicago?

14 Any in Springfield?

15 Okay. Thank you so much. We will go  
16 to IEPA.

17 IEPA, do you have someone available to  
18 answer any questions?

19 MR. RHOADES: Yes, we do.

20 THE HEARING OFFICER: Okay. All right.  
21 If you could state your name for the court reporter  
22 please.

23 MR. RHOADES: Joshua Rhoades.

24 THE HEARING OFFICER: Okay.

1                   And, Court Reporter, could you please  
2 swear in the witness?

3                   THE REPORTER: Of course.

4                   Please raise your right hand.

5 WHEREUPON,

6                   JOSHUA RHOADES,

7 called as a witness and having been first duly sworn  
8 to tell the truth, the whole truth, and nothing but  
9 the truth, was examined and testified as follows:

10                  THE REPORTER: Thank you.

11                  THE HEARING OFFICER: Okay.

12                  So we will enter in your pre-filed  
13 answers -- the ones that were just filed  
14 yesterday -- into the record as if read  
15 and -- assuming that there's no objections?

16                  I just want to check since they were  
17 filed within 24 hours. Hearing none, okay, we will  
18 enter them into the record as if read and enter them  
19 as Hearing Exhibit Number 5.

20                  (Hearing Exhibit 5 was marked for  
21 identification and received into  
22 evidence.)

23                  THE HEARING OFFICER: So we will go to  
24 any follow-up questions. Anyone in Chicago have any



1 follow-up questions for IEPA?

2 Anyone in Springfield?

3 MS. ZWICK: [No audible response.]

4 THE HEARING OFFICER: Yes.

5 MS. ZWICK: Okay.

6 DIRECT EXAMINATION

7 BY MS. ZWICK:

8 Q Yes, so this is Ann Zwick. I represent Land  
9 & Lakes Company. I just have a few questions for  
10 IEPA. The IEPA had stated -- it was in -- first of  
11 all, it was in July -- the July 2025 responses to the  
12 board order -- and now just last night -- that they  
13 don't believe adoption of the Part 620 -- the  
14 groundwater quality standards would render compliance.

15 First it was with the Part 811 and 814  
16 landfills, and now it's also the 807 -- technically or  
17 economically infeasible; correct? Who is that? Is it  
18 Joshua?

19 A That's correct --

20 Q That's correct. So what's the basis? I  
21 noticed on the documents filed last night -- what's  
22 the basis for the IEPA's opinion that it's not  
23 economically reasonable -- that it is economically  
24 reasonable?

1           A     Okay. So we're not covering the technical  
2 aspects? Only the economic aspect?

3           Q     Right now I'm on the economics.

4           A     Okay. Well, I -- I -- the -- the economic  
5 aspects of it are not a part of my purview as my  
6 position. And so to render a decision on what is or  
7 is not economically reasonable with regard to  
8 groundwater protection is outside the scope of my  
9 position and is -- is made -- deferred to board for  
10 that kind of decision.

11                     So any -- any claims of economic  
12 reasonableness on behalf of -- on behalf of me are  
13 from the current implementation of our regulatory  
14 programs and how those standards are deemed  
15 economically reasonable as well.

16           Q     Okay. I -- you know, in your July 25th  
17 responses, you -- the Illinois EPA said -- it was,  
18 like, on page 3 -- "cost of compliance should be  
19 incremental and manageable" and that they "were not  
20 aware of any additional costs for monitoring minus a  
21 \$300 sampling cost." Is that true?

22           A     With regard to sampling, yes, there would be  
23 the addition of the PFAS constituent compounds.

24           Q     Okay. Now, when -- and then the IEPA also

1 said that they felt like corrective costs were  
2 difficult to estimate, so there weren't any costs in  
3 there?

4 A We did not provide costs.

5 Q You did not provide costs? No? And the  
6 IEPA's testimony in economic reasonableness that was  
7 filed then, it didn't include any cost estimates for,  
8 for example, establishing background concentrations,  
9 for quarter sampling, having to put together a  
10 supplemental permit application? I didn't see  
11 anything in there about that.

12 A No, it did not --

13 Q Okay. They -- the IEPA didn't put cost  
14 estimates --

15 THE HEARING OFFICER: Anand, will you  
16 pass that over? The --

17 MR. RAO: Sure --

18 THE HEARING OFFICER: Sorry,  
19 continue --

20 BY MS. ZWICK:

21 Q -- didn't include any cost estimates to  
22 verify background value, which could include  
23 additional sampling? That wasn't in there?

24 A No, that -- that wasn't in there, but I -- I

1 believe that we spoke to the -- the complexity of  
2 putting together such an estimate and that it's going  
3 to be dependent on the specific facility, the number  
4 of wells that are upgrading, and so it'll be different  
5 per -- per facility. But as a -- as a general, the  
6 \$300 cost, that's the only --

7 Q Right. That's pretty much all that was in  
8 there? Yeah, the IEPA, it didn't include  
9 anything -- estimate that assessment monitoring or  
10 even corrected action?

11 A I believe we provided some -- some limits on  
12 cost based on calculating the worst-case scenario with  
13 the number of monitoring wells though.

14 But we did not provide -- we -- nor could we  
15 realistically provide a cost for assessment monitoring  
16 for a site that we -- we -- could be one -- would it  
17 be one well or multiple wells that would be in a  
18 facility? Would it be the entire facility? That  
19 would be it.

20 Q Right. Okay. It's -- when the IEPA had  
21 filed that testimony, my understanding is it was filed  
22 before you had seen the testimony that was filed by  
23 the NWRA and Land & Lakes, which did have very  
24 detailed cost estimates on all of those assets.

1 That's --

2 THE HEARING OFFICER: Oh. Sorry, could  
3 you go back? You were breaking up a little bit.

4 MS. ZWICK: Sure.

5 BY MS. ZWICK:

6 Q I just said that the IEPA's testimony that  
7 they filed July 25th stating that the -- that they  
8 they felt like it was economically reasonable, you had  
9 not yet seen the detailed cost estimates that were  
10 filed in by Land & Lakes and the NWRA; correct?

11 A If that's the order of events, then that  
12 would be correct.

13 Q It is. That wasn't taken into consideration  
14 because all of those -- all those costs were included.  
15 Okay. Just confirming. And then the \$300 sample cost  
16 was based on a 2020 report, I believe. Is that  
17 correct?

18 A Is that what it is cited?

19 Q Yeah, on page 6, I believe, it says "It's  
20 based on a 2020 report."

21 A Then yes.

22 Q Yeah. Did the IEPA look for anything more  
23 recent than that? You know, it's been like -- it's  
24 been five years.

1           A     Yeah, we did. We also have our own internal  
2     lab which matches closely those costs.

3           Q     Okay. All right. And yeah, so then the  
4     filing from last night, you've now -- your opinion has  
5     now gone to 807 landfills. You were asked by the  
6     board if this applies to 807 landfills, and you're  
7     saying again that your position as to economic  
8     reasonableness extends to 807 landfills; correct?

9           A     That is correct.

10          Q     But yet this recent filing, again, does not  
11     have any support that -- you don't have any background  
12     data or cost estimates -- virtual connectivity  
13     interruption --

14                   THE REPORTER: Oh, she's breaking  
15     up --

16                   THE HEARING OFFICER: Sorry, could you  
17     go back again? It was breaking up again --

18     BY MS. ZWICK:

19          Q     I'm asking about --

20                   THE HEARING OFFICER: Why is it  
21     breaking up so much --

22     BY MS. ZWICK:

23          Q     -- the IEPA has the position as to economic  
24     reasonableness extends the Part 807 landfills, but

1 yet, you know, the IEPA is not providing any cost  
2 estimate to support this belief. Is that  
3 correct -- beyond the \$300 sampling cost?

4 A Correct. We did not provide cost estimates  
5 in that response.

6 Q Okay. And then on -- last night the IEPA  
7 also said -- stated that it believed it was  
8 technically feasible for 807 landfills to comply with  
9 the new PFAS standards while describing some  
10 significant hurdles. Correct?

11 You say "Remediation at an unlined landfill  
12 can be complex, potentially involving pump-and-treat  
13 systems, source removal, or long term-containment."

14 So you're recognizing there are going to be  
15 significant issues, but -- so just to confirm, you  
16 know, I know, Joshua, you're aware that the -- you  
17 know, the regulatory requirements for 807  
18 landfills -- like, that they were not required to have  
19 composite liners; correct?

20 A That's correct.

21 Q They're not required to have a composite  
22 cap. That's correct?

23 A That's correct.

24 Q And so, again, they're not required to have

1 a leachate collection system; is that correct?

2 A Correct.

3 Q Correct. So they were not -- they're not  
4 required to test for leachate; correct?

5 A That is correct.

6 Q And very few have, like, a gas release  
7 system; that's correct?

8 A Yes. I would say very few --

9 Q You know, and we've -- in that document that  
10 was filed from the FOIA request, the IEPA had  
11 identified 97 landfills -- 807 landfills that have  
12 been unable to prove compliance, you know, with  
13 groundwater standards adopted 30 years ago, you know,  
14 after they stopped operating.

15 But is the IEPA stating that it now believes  
16 these landfills are capable of designing and operating  
17 a groundwater monitoring treatment system to meet  
18 these new PFAS standards?

19 A In as much for PFAS as the current  
20 parameters, which they are -- may or may not already  
21 be exceeding and under corrective action, yeah.

22 Q But we have ninety-seven 807 landfills that  
23 have not been able to certify the end of post-closure  
24 care from standards adopted over 30 years ago.



1           A     And I don't think adding PFAS would change  
2     that.

3           Q     You don't think -- do you think it's going  
4     to make it harder for these landfills to certify the  
5     end of post-closure care?

6           A     I didn't say that, no. I -- no, I don't  
7     know that it would make it harder or not. I can't  
8     speculate on that.

9                     But what I -- what I am saying is that  
10    these -- these 807s that are in corrective action  
11    or -- or have not been released from their  
12    post-closure care obligations -- for those facilities  
13    that are in that situation because of groundwater  
14    contamination due to the facility, the addition of  
15    PFAS doesn't necessarily change the corrective action  
16    that has to be undertaken.

17          Q     Okay. Just -- I just have a couple more  
18    questions. So just referring to the agency's  
19    responses to the board order from August 6th that was  
20    filed on August 11th -- you can pull it up real quick.  
21    So then page 12 of 18 -- okay.

22                    So I -- and Board questions -- let's look at  
23    8C and pretty much 8D and 8E. The board had asked  
24    "Whether all or some of the 34 closed Part 807

1 awaiting closure certifications are still monitoring  
2 groundwater?" And then they went on to say "If not,  
3 please comment on the status."

4 The agency's response was that groundwater  
5 monitoring is required by the permits. So it -- the  
6 agency really didn't answer the question, which is,  
7 "Are the closed Part 807 landfill monitoring?" Can  
8 you answer that question?

9 A I don't -- I don't -- I don't understand  
10 what -- how we didn't answer that question.

11 Q Yeah, 8 -- the 80 -- the 8C, it says "Please  
12 clarify whether all are some of the 34 closed Part 807  
13 landfills awaiting closure certification are still  
14 monitoring groundwater?" "Are they?" is the question.

15 The agency's response is that groundwater  
16 monitoring is required. I mean, is the IEPA aware of  
17 how many landfills aren't monitoring, aren't sampling?

18 A I -- I am not aware of any that -- that are  
19 not sampling --

20 Q Oh, you're not --

21 A -- groundwater conditions set per Part 807.

22 Q Oh, it's your understanding that all  
23 the -- all of these 807 landfills -- these 34 closed  
24 ones are all sampling?

1           A     That's what's required in their  
2 permits -- is to sample.

3           Q     I guess the difference being what is  
4 required versus what is actually, you know, happening.  
5 It's my understanding that not all of them are  
6 sampling. Is that your understanding?

7           A     No, it is not.

8           Q     It's not? Again, it's my understanding that  
9 a lot of them can't afford it. They can't afford it,  
10 so they're not doing it. The IEPA is not aware of  
11 that?

12          A     I would have to follow up to -- to find out  
13 what facilities you're -- you're talking about that  
14 are not -- that are not following their permit  
15 requirements for sampling. I'm not aware of any right  
16 now --

17          Q     Okay. Yeah. It's my understanding that  
18 there are a number of 807s that -- they just can't  
19 afford it anymore. You know, it's been 30 years  
20 and -- but anyways, yeah, if you could get more  
21 information about that, that would be great.

22                   But I have the same questions about -- now  
23 we're at the 63 Part 807 landfills that are in  
24 post-closure. Is the IEPA aware whether some or all

1 of those landfills are not continuing to sample?

2 A I'm not aware of facilities that are -- that  
3 are not sampling --

4 Q That are not -- okay.

5 A Yeah, and of course if they're in  
6 post-closure, their obligations are --

7 Q Yeah, that -- I -- then maybe IEPA might  
8 want to look into it again. It's my understanding  
9 that it's a cost issue that, you know, it's been 30  
10 years since landfills like that have generated  
11 revenue -- for 30 years -- and some have stopped  
12 sampling. So -- all right.

13 And then just a couple more. I had a  
14 question about that list of 807 landfills that was  
15 provided by the agency pursuant to that FOIA request  
16 and that has been filed. Do you know when that list  
17 was last updated?

18 A The list that you received from FOIA?

19 Q Yes.

20 A I -- I don't know without looking at it, no.

21 Q Yeah. Is it possible that maybe some of  
22 those landfills -- maybe those -- maybe the list is  
23 not accurate? Are there landfills on that list that  
24 are known to the agency that are no longer being

1 actively managed by an owner or an operator?

2 A I'd have to review the list to answer that  
3 question. I'd have to look through the --

4 Q Okay. Do you know which landfills are being  
5 monitored by the State?

6 A I know that there are landfills monitored by  
7 the State on that list.

8 Q Yeah?

9 A But I don't know the extensively exhaustive  
10 list of -- of which ones those are. And then the FOIA  
11 list is -- is from provided in what response?

12 Q With -- it was in Mr. Hunsberger's  
13 testimony. We filed it as part of his testimony.  
14 Okay. It sounds like it may be worth taking a closer  
15 look at that list. I just have one just follow-up  
16 question. So we've established that based on that  
17 list that there are 97 Part 807 landfills that  
18 still --

19 THE REPORTER: I can't hear her --

20 THE HEARING OFFICER: Sorry, could you  
21 repeat your question please? It was breaking up  
22 again.

23 MS. ZWICK: Sure.

24 //

1 BY MS. ZWICK:

2 Q So we've established based on this list from  
3 the IEPA that there are -- based on that list that  
4 there are 97 Part 807 landfills that have not  
5 completed post-closure care, not been certified as  
6 post-closure repair completion. And they must certify  
7 compliance with these Part 620 groundwater standards  
8 in order to do so; correct?

9 A That's correct -- correct. Yeah.

10 Q So is it the agency's expectation, just from  
11 reading what has been filed, that many of these  
12 facilities will have to seek, like, an adjusted  
13 standard or a variance from the PFAS Part 620  
14 standards in order to be able to certify compliance  
15 with these standards?

16 A With the alternative being the broad  
17 regulatory exemption, yes.

18 Q And so, I mean, what is the -- for these  
19 Part 807 landfills, what is the adjusted standard and  
20 process? What does that entail for them?

21 A I am -- I am not intimately familiar with  
22 the adjusted standard process to speak on -- on all of  
23 the aspects of it, but it involves petition in front  
24 of the Illinois Pollution Control Board --

1 THE REPORTER: Can you ask him to speak  
2 up?

3 THE HEARING OFFICER: Sorry, can you  
4 speak up when you're answering the questions, please?

5 THE WITNESS: Yes. I responded that  
6 I'm not intimately familiar with the adjusted standard  
7 process to speak on that now, but I can say that it  
8 does involve petition to the Pollution Control Board.

9 BY MS. ZWICK:

10 Q You probably have to hire an attorney;  
11 correct?

12 A I -- I mean, I don't know, I --

13 Q Maybe to file something with the board --

14 A Correct --

15 Q Represent -- may have to hire an expert to  
16 help proving an adjust -- you know, the petition;  
17 correct? If you're going to ask for the adjusted  
18 standard --

19 A You know, like, maybe attorneys --

20 Q So it's -- you know, it's likely going to be  
21 costly for an 807 landfill that hasn't generated  
22 revenue in 30 years. Is that correct? There's going  
23 to be a cost involved?

24 A There could potentially be a cost involved

1 given the scenario you -- yes.

2 Q And the result is uncertain for the  
3 landfill. Correct? We don't know that the agency or  
4 the board is going to grant this. Correct?

5 A That is true. We do not -- the IEPA  
6 does -- does not have control over what the board does  
7 or does not approve with regard to an adjusted  
8 standard.

9 Q Yeah. So if they can't get the adjusted  
10 standard, then the Part 807 landfills are just going  
11 to need to continue to monitor for these new PFAS  
12 groundwater standards really for as long as they can  
13 afford it; correct?

14 A I -- well, they would -- they would have to.  
15 If they want to be in compliance, then they would have  
16 to monitor for as long as they're on their permit.

17 Q Okay. Is the agency going to provide any  
18 type of financial assistance to -- for the monitoring  
19 or even kind of like corrective actions for these  
20 landfills -- these 807 landfills that have  
21 not -- revenue in over 30 years?

22 A I -- I can't say whether or not that would  
23 be the case. There's -- there's a fund for the  
24 cleanup. I can't speak on that.



1 MS. ZWICK: Okay. Just one second.  
2 Okay. I have no further questions. Thank you for  
3 your time.

4 THE HEARING OFFICER: Okay. Thank you.  
5 Are there any other questions?

6 MR. SIEVERS: [No audible response.]

7 THE HEARING OFFICER: Yes.

8 DIRECT EXAMINATION

9 BY MR. SIEVERS:

10 Q Mr. Rhoades, Scott Sievers. I am an  
11 attorney for the National Waste & Recycling  
12 Association. You're here today as a witness on behalf  
13 of the Illinois Environmental Protection Agency;  
14 correct?

15 A That is correct.

16 Q And you're prepared here today to speak on  
17 the subject of technical feasibility; is that right?

18 A [No audible response.]

19 Q But you are not here to speak on the subject  
20 of economic reasonableness; is that right?

21 A That is correct.

22 Q Does agency have a witness here today to  
23 speak on the topic of economic reasonableness?

24 A No.

1 MR. SIEVERS: The agency does not.

2 Okay. Thank you. No further questions.

3 THE HEARING OFFICER: Okay. All right.  
4 Just checking if there's any other follow-up  
5 questions? Okay.

6 Seeing none, we'll go to public  
7 comments. For the record, does anyone have any public  
8 comments they would like to offer today?

9 Anyone in Chicago?

10 Anyone in Springfield? Okay.

11 And then just checking also if there's  
12 anyone today who did not pre-file testimony but would  
13 like to offer testimony? Okay. Hearing none, I'd  
14 like to go off the record for a moment to discuss some  
15 procedural issues.

16 (Discussion held off the record.)

17 THE HEARING OFFICER: Okay. All right.  
18 We will go back on the record to adjourn.

19 THE REPORTER: Okay.

20 THE HEARING OFFICER: Okay. So copies  
21 of today's transcript will be available no later than  
22 Monday, September 29, 2025. When the board receives  
23 the transcript, it will promptly posted to COOL, from  
24 which it can be viewed and printed.

1           IEPA answers to any questions from  
2   today's hearing will be due September 30th. And  
3   before it takes action on the agency's proposal, the  
4   board will open a post-hearing comment period, which  
5   will tentatively end on October 13th. When the board  
6   receives the transcript, we will issue a hearing  
7   officer order confirming this deadline.

8           Filings with the board, whether paper  
9   or electronic must be also served on the hearing  
10   officer and on those persons on the service list.  
11   Before filing, please check on COOL or with the  
12   board's clerk to ensure that you have the most recent  
13   version of the service list. Are there any other  
14   matters that need to be addressed at this time?

15           MS. TIPSORD: [No audible response.]

16           THE HEARING OFFICER: Yes?

17           MS. TIPSORD: October 13th is a  
18   holiday.

19           THE HEARING OFFICER: Oh, is it? Okay.  
20   Well, we will make it the 14th then. All right. Good  
21   catch. Thank you, Marie.

22           Okay. So we will have the post-hearing  
23   period end on October 14th. Please disregard the  
24   previous date. All right. Any other questions or

1 matters that need to be addressed? All right.  
2 Neither seeing nor hearing any, thank you to everyone  
3 for participating. This hearing is adjourned.

4 (Whereupon, at 11:25 a.m., the  
5 proceeding was concluded.)  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24

CERTIFICATE

I, HALEY GOODWIN, the officer before whom the foregoing proceedings were taken, do hereby certify that any witness(es) in the foregoing proceedings, prior to testifying, were duly sworn; that the proceedings were recorded by me and thereafter reduced to typewriting by a qualified transcriptionist; that said digital audio recording of said proceedings are a true and accurate record to the best of my knowledge, skills, and ability; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this was taken; and, further, that I am not a relative or employee of any counsel or attorney employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.



HALEY GOODWIN

Notary Public in and for the  
State of Illinois

CERTIFICATE OF TRANSCRIBER

I, ETHAN SIEGEL, do hereby certify that this transcript was prepared from the digital audio recording of the foregoing proceeding, that said transcript is a true and accurate record of the proceedings to the best of my knowledge, skills, and ability; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this was taken; and, further, that I am not a relative or employee of any counsel or attorney employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.

A handwritten signature in black ink that reads "Ethan Siegel". The signature is written in a cursive, flowing style with a horizontal line through the middle of the letters.

ETHAN SIEGEL

<b>&amp;</b>	<b>18</b> 41:21	<b>30th</b> 51:2	<b>620.420e.</b> 28:10
<b>&amp;</b> 3:4,7,11,13	<b>19</b> 5:5	<b>312</b> 2:10	<b>63</b> 26:14 43:23
6:5,8,11,13	<b>1993</b> 24:1	<b>32/32</b> 6:16	<b>630</b> 2:7
10:7,8,11,23	<b>1994</b> 23:19	<b>33</b> 5:10	<b>6th</b> 41:19
21:24 22:12	<b>2</b>	<b>34</b> 26:14 41:24	<b>7</b>
23:17,17,18	<b>2</b> 6:7 12:17,18	42:12,23	<b>7</b> 9:14
33:9 36:23	23:18 27:18	<b>35</b> 1:6,7 2:3,3	<b>7543763</b> 1:17
37:10 49:11	<b>20</b> 5:6 9:12,18	7:8	<b>8</b>
<b>1</b>	<b>2020</b> 37:16,20	<b>38</b> 23:14	<b>8</b> 16:4 29:19
<b>1</b> 6:4 11:13	<b>2021</b> 9:14	<b>4</b>	42:11
12:10,11 23:18	<b>2022</b> 9:6,12	<b>4</b> 6:12 29:3,4	<b>80</b> 42:11
27:18	<b>2025</b> 1:10 9:4,5	<b>49</b> 5:11	<b>807</b> 16:2,4
<b>102.246.</b> 7:22	9:18,21 10:1,9	<b>5</b>	18:13 23:23,23
<b>102.424f</b> 11:2	33:11 50:22	<b>5</b> 6:14 11:15	24:3,9,10,22
<b>10:30</b> 1:11 7:3	<b>23</b> 9:21	17:22 32:19,20	25:20 26:3,7
11:8	<b>24</b> 32:17	<b>6</b>	26:12,21,23
<b>10th</b> 10:14	<b>25th</b> 34:16 37:7	<b>6</b> 9:6 10:9	27:1,4,12,15,17
<b>11:25</b> 52:4	<b>27b</b> 9:7	37:19	27:24 28:6,8
<b>11:30</b> 11:9,12	<b>28/28</b> 6:11	<b>60</b> 2:7	29:19,21 30:7
<b>11th</b> 10:11	<b>29</b> 5:8 50:22	<b>60601</b> 1:15	30:10,21 33:16
41:20	<b>29/29</b> 6:13	<b>60605</b> 2:8	38:5,6,8,24
<b>12</b> 41:21	<b>29674</b> 53:17	<b>620</b> 1:6 2:3 7:8	39:8,17 40:11
<b>12/12</b> 6:6,9	<b>3</b>	9:17,18,23	40:22 41:24
<b>13</b> 5:4	<b>3</b> 6:10 11:15	10:5 13:16	42:7,12,21,23
<b>13th</b> 51:5,17	28:14,15 34:18	14:7 16:20	43:23 44:14
<b>14</b> 9:4	<b>30</b> 23:20 26:23	24:11,23 25:21	45:17 46:4,19
<b>14th</b> 51:20,23	40:13,24 43:19	26:4,9 27:24	47:21 48:10,20
<b>15</b> 9:5 10:1	44:9,11 47:22	29:20 30:8	<b>807s</b> 41:10
<b>15th</b> 10:16	48:21	33:13 46:7,13	43:18
14:24	<b>300</b> 34:21 36:6	<b>620.101d</b> 8:15	<b>811</b> 1:7 2:4
<b>16</b> 1:10	37:15 39:3	<b>620.410f</b> 28:9	9:24 10:4
<b>160</b> 1:14	<b>30113</b> 54:14		13:17,19 14:1
			16:1,24 24:2

26:3 29:18 33:15 <b>811/814</b> 16:8 <b>814</b> 1:7 2:4 9:24 10:4 13:17,19 14:1 16:1,24 24:5,9 26:4 28:7 29:19 33:15 <b>814-3620</b> 2:10 <b>8c</b> 41:23 42:11 <b>8d</b> 41:23 <b>8e</b> 41:23	<b>action</b> 27:17 30:19 36:10 40:21 41:10,15 51:3 53:12,16 54:8,12 <b>actions</b> 48:19 <b>actively</b> 45:1 <b>activities</b> 20:6 <b>actually</b> 43:4 <b>added</b> 14:4,8,8 14:12,18 15:4 15:8,10,12 18:8 21:10,13 21:15 25:3 26:1 30:12 <b>adding</b> 13:18 15:14,17 41:1 <b>addition</b> 34:23 41:14 <b>additional</b> 34:20 35:23 <b>address</b> 10:4 <b>addressed</b> 15:24 16:6 51:14 52:1 <b>adjourn</b> 50:18 <b>adjourned</b> 52:3 <b>adjust</b> 47:16 <b>adjusted</b> 46:12 46:19,22 47:6 47:17 48:7,9 <b>adm</b> 1:6,7 2:3,3 <b>administrative</b> 7:8 23:23	<b>administrator</b> 4:4 <b>admitted</b> 8:1 <b>adopted</b> 9:18 40:13,24 <b>adoption</b> 10:5 33:13 <b>advisor</b> 7:17 <b>affect</b> 17:5 <b>affiliated</b> 17:20 <b>afford</b> 43:9,9 43:19 48:13 <b>afternoon</b> 11:14 <b>agency</b> 3:16,19 3:22 4:5 6:16 9:16 15:20 28:2 42:6 44:15,24 48:3 48:17 49:13,22 50:1 <b>agency's</b> 15:19 41:18 42:4,15 46:10 51:3 <b>ago</b> 23:20 26:24 40:13,24 <b>ahead</b> 8:23 20:15 <b>alternative</b> 46:16 <b>amend</b> 9:16 <b>amendments</b> 1:5 2:2 7:7 9:18 10:4	<b>analysis</b> 17:3,5 <b>anand</b> 2:19 7:18 13:6 18:22 29:13 35:15 <b>andrews</b> 23:4,5 23:14 <b>angela</b> 2:18 7:15 20:13 <b>ann</b> 3:9 33:8 <b>annual</b> 15:4 30:12 <b>annually</b> 18:4 <b>answer</b> 31:18 42:6,8,10 45:2 <b>answering</b> 18:24 47:4 <b>answers</b> 6:7,10 6:14 12:15 28:12 30:20 32:13 51:1 <b>anticipate</b> 11:7 <b>anymore</b> 43:19 <b>anyways</b> 43:20 <b>appellate</b> 26:7 <b>applicable</b> 27:3 <b>application</b> 35:10 <b>applied</b> 14:6 <b>applies</b> 38:6 <b>applying</b> 9:23 <b>appreciates</b> 10:19
---	--	---	--



<b>approve</b> 48:7 <b>approved</b> 15:5 <b>asked</b> 29:18 38:5 41:23 <b>asking</b> 8:10 13:18 30:7 38:19 <b>aspect</b> 34:2 <b>aspects</b> 34:2,5 46:23 <b>assessment</b> 14:13,19 15:8 15:9,17 17:6 20:20 30:19,24 36:9,15 <b>assets</b> 36:24 <b>assistance</b> 48:18 <b>assistant</b> 3:18 <b>association</b> 3:4 3:12,14 6:6,9 10:7 49:12 <b>assume</b> 16:4 <b>assuming</b> 32:15 <b>assumption</b> 14:7 <b>attorney</b> 3:9,11 3:13 7:17 47:10 49:11 53:14 54:10 <b>attorneys</b> 47:19 <b>audible</b> 33:3 49:6,18 51:15	<b>audience</b> 7:20 <b>audio</b> 53:8 54:3 <b>august</b> 9:4,5 10:9,11 41:19 41:20 <b>available</b> 31:17 50:21 <b>avoid</b> 8:8 <b>awaiting</b> 42:1 42:13 <b>aware</b> 17:16 18:9 19:18 34:20 39:16 42:16,18 43:10 43:15,24 44:2	<b>based</b> 17:3 21:2 21:3,6,7,7 36:12 37:16,20 45:16 46:2,3 <b>basically</b> 15:9 <b>basis</b> 21:1 33:20,22 <b>bear</b> 8:2 <b>behalf</b> 2:2 14:18 15:11 23:17 34:12,12 49:12 <b>belief</b> 17:13 39:2 <b>believe</b> 30:6,9 31:9 33:13 36:1,11 37:16 37:19 <b>believed</b> 39:7 <b>believes</b> 40:15 <b>beneficial</b> 30:10 <b>best</b> 53:10 54:6 <b>better</b> 16:11 30:24 <b>beyond</b> 39:3 <b>big</b> 15:13 <b>bilandic</b> 1:13 <b>bit</b> 15:7 24:20 25:14,14 37:3 <b>board</b> 1:1 2:6 2:13,14,15,16 2:18 7:4,9,10 7:11,11,14,15	7:16 8:3 9:1,6 9:12,16,18,21 10:1,6,8,19 12:22,24 15:20 24:10,22 25:20 26:6 33:12 34:9 38:6 41:19,22,23 46:24 47:8,13 48:4,6 50:22 51:4,5,8 <b>board's</b> 7:21 8:5,24 11:2 27:15 51:12 <b>boy</b> 9:7 <b>brad</b> 3:6 5:7 10:22 21:23 22:6 23:2 <b>break</b> 11:7,15 25:16 <b>breaking</b> 11:12 24:16,19 25:5 25:7,13 37:3 38:14,17,21 45:21 <b>brief</b> 19:21,21 22:21 <b>broad</b> 46:16 <b>brown</b> 2:20 7:19 11:9 <b>building</b> 1:13 <b>buren</b> 2:7
	<b>b</b>		
	<b>b</b> 3:11 6:1 <b>bachelor</b> 23:9 <b>back</b> 24:19 37:3 38:17 50:18 <b>background</b> 14:15 17:2,3 19:21 26:10 30:15 35:8,22 38:11 <b>bad</b> 11:12 <b>ballenger</b> 3:3 5:3 10:22 11:19 12:2 <b>barbara</b> 2:13 7:11		

<b>c</b>	41:4 46:6,14 53:4 54:2	<b>closely</b> 38:2 <b>closer</b> 13:6 25:13 45:14 <b>closure</b> 15:16 23:21 24:7,8 25:2,24 26:2 26:10,13,15 27:7,9 40:23 41:5,12 42:1 42:13 43:24 44:6 46:5,6 <b>code</b> 1:6,7 2:3,3 7:8 8:14 23:23 <b>collection</b> 26:22 40:1 <b>come</b> 29:23 <b>comment</b> 10:2 10:9 42:3 51:4 <b>comments</b> 8:21 8:24 9:2 11:6 50:7,8 <b>commerce</b> 9:9 <b>company</b> 3:7 6:11,13 10:8 10:11,23 21:24 23:13,17 33:9 <b>complete</b> 8:4 <b>completed</b> 26:13 27:10 46:5 <b>completion</b> 24:13 25:1,23 26:2 46:6	<b>complex</b> 39:12 <b>complexity</b> 36:1 <b>compliance</b> 17:18 20:4,4 23:16 24:11,23 25:2,21,24 33:14 34:18 40:12 46:7,14 48:15 <b>complied</b> 21:13 <b>comply</b> 13:19 29:21 39:8 <b>composite</b> 26:22 39:19,21 <b>compounds</b> 34:23 <b>concentrations</b> 26:10 30:15 35:8 <b>concern</b> 21:6 <b>concerned</b> 18:7 <b>concerns</b> 10:5 <b>concluded</b> 52:5 <b>conclusion</b> 31:8 <b>condition</b> 26:1 27:6 <b>conditions</b> 42:21 <b>conduct</b> 9:9 <b>confirm</b> 39:15 <b>confirmed</b> 26:6 <b>confirming</b> 37:15 51:7
<b>c</b> 2:1 3:1 4:1 7:1 <b>calculating</b> 36:12 <b>call</b> 10:22 <b>called</b> 12:3 22:7 32:7 <b>cap</b> 39:22 <b>capable</b> 40:16 <b>care</b> 23:21 24:7 24:8 26:11,13 26:15 27:9 40:24 41:5,12 46:5 <b>case</b> 36:12 48:23 <b>catch</b> 51:21 <b>ceased</b> 23:24 26:23 <b>certainly</b> 16:7,8 16:11,15 <b>certificate</b> 53:1 54:1 <b>certification</b> 25:3 26:2 42:13 <b>certifications</b> 42:1 <b>certified</b> 26:14 46:5 <b>certify</b> 24:13 25:1,23 26:10 27:9 40:23	41:4 46:6,14 53:4 54:2 <b>chair</b> 2:13 7:11 <b>change</b> 41:1,15 <b>changes</b> 16:20 17:13 <b>check</b> 32:16 51:11 <b>checking</b> 50:4 50:11 <b>chicago</b> 1:15 2:8 9:4 31:13 32:24 50:9 <b>chief</b> 2:19 7:18 <b>chloe</b> 1:12 7:5 13:3,5 19:11 22:17 <b>cited</b> 37:18 <b>civil</b> 23:5 <b>claims</b> 34:11 <b>claire</b> 3:13 <b>clarification</b> 17:15 <b>clarify</b> 42:12 <b>cleanup</b> 48:24 <b>clear</b> 8:4,10 <b>clearly</b> 8:8 <b>clerk</b> 51:12 <b>clerk's</b> 9:1 <b>close</b> 24:6 <b>closed</b> 23:19 24:4 26:14,14 27:2 41:24 42:7,12,23		

<b>confusion</b> 14:17 15:10 16:18 <b>connectivity</b> 24:14 38:12 <b>consideration</b> 37:13 <b>consistent</b> 21:15 <b>constituent</b> 34:23 <b>constituents</b> 15:2,3 27:4,21 <b>constructed</b> 24:4 <b>cont'd</b> 3:1,2 4:1 4:2 <b>containment</b> 39:13 <b>contamination</b> 41:14 <b>continue</b> 35:19 48:11 <b>continuing</b> 44:1 <b>contradictory</b> 14:5 15:7 <b>contributing</b> 30:17 <b>control</b> 1:1 2:6 7:4 23:8 46:24 47:8 48:6 <b>cook</b> 23:18	<b>cool</b> 9:1 50:23 51:11 <b>cooperider</b> 4:3 <b>copies</b> 50:20 <b>correct</b> 33:17 33:19,20 37:10 37:12,17 38:8 38:9 39:3,4,10 39:19,20,22,23 40:1,2,3,4,5,7 46:8,9,9 47:11 47:14,17,22 48:3,4,13 49:14,15,21 <b>corrected</b> 36:10 <b>corrective</b> 27:17 30:19 35:1 40:21 41:10,15 48:19 <b>cost</b> 10:3 27:16 27:19 34:18,21 35:7,13,21 36:6,12,15,24 37:9,15 38:12 39:1,3,4 44:9 47:23,24 <b>costly</b> 15:14 47:21 <b>costs</b> 34:20 35:1,2,4,5 37:14 38:2 <b>counsel</b> 2:21 3:18,21 7:20 10:20 53:11,14	54:7,10 <b>county</b> 23:19 <b>couple</b> 13:1 41:17 44:13 <b>course</b> 20:6 32:3 44:5 <b>court</b> 8:7,16 11:20 22:1 26:7 31:21 32:1 <b>covering</b> 34:1 <b>current</b> 16:20 34:13 40:19 <b>currently</b> 17:7 17:22,23 20:3 23:21 28:7 <b>currie</b> 2:13 7:11 <b>cx</b> 5:2	<b>deemed</b> 34:14 <b>deferred</b> 34:9 <b>degree</b> 23:9 <b>dell'aquila</b> 3:18 <b>demonstrate</b> 26:8 <b>demonstration</b> 15:5 <b>department</b> 9:8 <b>dependent</b> 36:3 <b>depending</b> 30:14 <b>depends</b> 14:2 <b>deputy</b> 3:21 <b>derived</b> 30:16 <b>describing</b> 39:9 <b>description</b> 6:2 <b>design</b> 21:7 27:21 <b>designed</b> 27:1 <b>designing</b> 40:16 <b>detailed</b> 36:24 37:9 <b>detected</b> 15:2 <b>detection</b> 14:9 15:4,15 17:24 18:1 20:19 21:1 <b>develop</b> 8:4 <b>developed</b> 27:2 <b>diego</b> 3:21 <b>difference</b> 15:13 43:3
---	--	---	--

<b>differences</b> 24:6 <b>different</b> 14:3 15:16 20:1,23 36:4 <b>difficult</b> 35:2 <b>digital</b> 53:8 54:3 <b>direct</b> 13:13 19:15 20:16 29:15 33:6 49:8 <b>directed</b> 10:1 10:15 13:2 <b>director</b> 3:6 23:3 <b>discuss</b> 50:14 <b>discussion</b> 16:15 17:12 50:16 <b>discussions</b> 14:4 16:11 28:1,2 <b>disregard</b> 51:23 <b>distributed</b> 21:8 <b>division</b> 23:8 <b>docket</b> 1:5 7:9 28:4 <b>document</b> 40:9 <b>documents</b> 33:21	<b>dog</b> 8:15 <b>doing</b> 43:10 <b>due</b> 41:14 51:2 <b>duly</b> 10:24 12:3 22:7 32:7 53:5 <b>dx</b> 5:2	<b>employee</b> 53:13 54:10 <b>ended</b> 26:11 <b>engineering</b> 23:4,6 <b>ensure</b> 51:12 <b>entail</b> 46:20 <b>enter</b> 12:15,16 22:12 28:12,13 28:21 29:2 32:12,18,18 <b>entered</b> 11:1 12:8,9 <b>entire</b> 15:15 36:18 <b>entities</b> 12:23 <b>entitled</b> 7:6 <b>environmental</b> 2:19,20 3:9,16 3:19,22 4:4 6:15 7:18,19 9:8,15,15 23:5 49:13 <b>epa</b> 26:17 34:17 <b>equally</b> 9:2 <b>eric</b> 3:3 5:3 10:22 11:19 12:2 <b>es</b> 53:4 <b>especially</b> 17:22 <b>esquire</b> 2:5	<b>essence</b> 2:20 7:19 <b>established</b> 45:16 46:2 <b>establishing</b> 35:8 <b>estimate</b> 35:2 36:2,9 39:2 <b>estimates</b> 27:16 35:7,14,21 36:24 37:9 38:12 39:4 <b>ethan</b> 54:2,15 <b>evd</b> 6:2 <b>events</b> 37:11 <b>eventually</b> 14:8 <b>evidence</b> 12:13 12:20 28:17 29:6 32:22 <b>exactly</b> 31:7 <b>examination</b> 13:13 19:15 20:16 29:15 33:6 49:8 <b>examined</b> 12:5 22:9 32:9 <b>example</b> 18:5 21:4 35:8 <b>exceeded</b> 30:15 <b>exceeding</b> 40:21 <b>excuse</b> 14:20 <b>exempt</b> 24:10 24:22 25:20
	<b>e</b>		
	<b>e</b> 2:1,1 3:1,1 4:1 4:1 5:1 6:1 7:1 7:1 <b>earlier</b> 12:8 29:18 <b>east</b> 2:7 <b>economic</b> 9:9 9:10,22 27:22 34:2,4,11 35:6 38:7,23 49:20 49:23 <b>economically</b> 24:12,24 25:22 33:17,23,23 34:7,15 37:8 <b>economics</b> 34:3 <b>effect</b> 17:11,14 <b>effective</b> 24:2 <b>effort</b> 10:20 <b>efforts</b> 17:6 <b>either</b> 18:4 <b>electronic</b> 51:9 <b>employed</b> 53:11,14 54:8 54:11		

<p>28:7  <b>exempted</b>  29:19 30:8  <b>exemption</b>  16:23 17:12  26:5 28:9 31:8  46:17  <b>exemptions</b>  16:20  <b>exhaustive</b>  10:10 45:9  <b>exhibit</b> 6:4,7,10  6:12,14 12:10  12:11,17,18  28:13,15 29:3  29:4 32:19,20  <b>existing</b> 23:24  <b>expansion</b> 17:8  <b>expectation</b>  46:10  <b>expediting</b>  10:18  <b>experience</b> 24:3  <b>expert</b> 47:15  <b>explore</b> 9:22  <b>extends</b> 38:8,24  <b>extensively</b>  45:9  <b>extent</b> 19:18  <b>extremely</b> 27:5  27:20</p>	<p><b>f</b>  <b>facilities</b> 17:1  21:9 41:12  43:13 44:2  46:12  <b>facility</b> 15:4,16  17:7 30:17  36:3,5,18,18  41:14  <b>fact</b> 27:7  <b>familiar</b> 46:21  47:6  <b>far</b> 16:24 18:9  <b>fast</b> 8:18  <b>feasibility</b> 9:23  49:17  <b>feasible</b> 13:16  13:19,21 39:8  <b>february</b> 9:12  <b>feel</b> 8:16  <b>fellow</b> 7:17  <b>felt</b> 35:1 37:8  <b>file</b> 47:13 50:12  <b>filed</b> 6:4,7,10  6:12,14 10:6  10:12,16,24  12:8,15 15:20  22:12 28:4,12  29:3 32:12,13  32:17 33:21  35:7 36:21,21  36:22 37:7,10  40:10 41:20</p>	<p>44:16 45:13  46:11  <b>filing</b> 28:3 38:4  38:10 51:11  <b>filings</b> 51:8  <b>financial</b> 48:18  <b>financially</b>  53:15 54:11  <b>find</b> 43:12  <b>finished</b> 11:14  <b>finishing</b> 11:5  <b>firm</b> 3:9 23:6  <b>first</b> 10:22 12:3  13:15 22:7,20  23:7 32:7  33:10,15  <b>five</b> 17:9 22:24  37:24  <b>flynn</b> 2:13 7:11  <b>foia</b> 40:10  44:15,18 45:10  <b>follow</b> 10:15  12:22,23,24  28:19 29:8,17  30:21 32:24  33:1 43:12  45:15 50:4  <b>following</b> 43:14  <b>follows</b> 12:5  22:9 32:9  <b>foregoing</b> 53:3  53:4 54:4  <b>forward</b> 30:23</p>	<p><b>founded</b> 23:6  <b>foxtrot</b> 11:2  <b>free</b> 8:16  <b>freedom</b> 26:17  <b>front</b> 46:23  <b>fund</b> 48:23  <b>further</b> 49:2  50:2 53:13  54:9  <b>future</b> 17:5</p> <p><b>g</b>  <b>g</b> 7:1  <b>gas</b> 40:6  <b>general</b> 2:21  3:21 7:20 18:2  18:2 36:5  <b>generally</b> 13:2  23:24 26:21  <b>generated</b>  44:10 47:21  <b>generating</b>  26:24  <b>geologic</b> 23:12  <b>geologist</b> 23:10  <b>geology</b> 23:10  <b>gia</b> 17:10  <b>gibson</b> 2:14  7:12  <b>give</b> 19:21 20:2  22:21  <b>given</b> 27:20  48:1</p>
--	---	---	---

<p><b>go</b> 8:22 12:21 12:24 16:17 20:15 21:20 24:19 28:18 29:8 30:18 31:8,15 32:23 37:3 38:17 50:6,14,18 <b>goes</b> 14:13 15:9 18:3 <b>going</b> 8:17 11:8 14:18 17:7 22:15,19 30:22 31:7 36:2 39:14 41:3 47:17,20,22 48:4,10,17 <b>good</b> 7:3 51:20 <b>goodwin</b> 1:16 53:2,18 <b>governed</b> 7:21 <b>grant</b> 48:4 <b>great</b> 16:22 25:14 43:21 <b>greenfield</b> 17:8 <b>groundwater</b> 1:5 2:2 7:7 9:17,19 14:9 17:5 20:4 26:8 27:6 30:18 33:14 34:8 40:13,17 41:13 42:2,4,14,15,21 46:7 48:12</p>	<p><b>guarantee</b> 27:7 <b>guess</b> 14:2 43:3 <b>h</b> <b>h</b> 6:1 <b>haley</b> 1:16 53:2 53:18 <b>hand</b> 11:23 22:4 32:4 <b>handling</b> 20:3 <b>happening</b> 43:4 <b>harder</b> 41:4,7 <b>hear</b> 13:6,9 19:10 22:20 30:5 45:19 <b>hearing</b> 1:9,12 6:3 7:2,5,5,17 7:21 8:1 9:3 10:10,14,19 11:11,17 12:7 12:9,11,14,16 12:18,21 13:4 13:7 18:15,21 19:1,3,6,9,12 20:12,15 21:19 22:11,16,18,22 24:18 25:5,11 25:18 28:11,13 28:15,18,22 29:1,3,4,7,12 31:11,20,24 32:11,17,19,20 32:23 33:4 35:15,18 37:2</p>	<p>38:16,20 45:20 47:3 49:4,7 50:3,13,17,20 51:2,4,6,9,16 51:19,22 52:2 52:3 <b>heavy</b> 21:8 <b>held</b> 50:16 <b>help</b> 8:4,9 29:21 30:24 47:16 <b>helpful</b> 10:18 31:6,9 <b>hereto</b> 53:15 54:11 <b>hire</b> 47:10,15 <b>holiday</b> 51:18 <b>hope</b> 20:10 <b>horton</b> 2:5 7:18 11:10 18:17,19 22:14 28:21 <b>hour</b> 11:13 <b>hours</b> 32:17 <b>huh</b> 18:18 <b>hunsberger</b> 3:6 5:7 10:23 18:14 21:23 22:6,20 23:3 <b>hunsberger's</b> 45:12 <b>hurdles</b> 39:10 <b>hydrogeologic</b> 23:12</p>	<p><b>hydrogeologi...</b> 3:7 23:4 <b>hydrogeologist</b> 19:24 <b>hydrogeology</b> 3:3 <b>i</b> <b>identification</b> 12:12,19 28:16 29:5 32:21 <b>identified</b> 21:3 40:11 <b>iepa</b> 9:16 10:9 10:12,16,16,20 10:23 14:11 15:6 31:16,17 33:1,10,10 34:24 35:13 36:8,20 37:22 38:23 39:1,6 40:10,15 42:16 43:10,24 44:7 46:3 48:5 51:1 <b>iepa's</b> 14:21,23 23:7 33:22 35:6 37:6 <b>il</b> 1:15 2:8 <b>illinois</b> 1:1 2:6 3:15,18,21 4:4 6:15 7:4,8 9:15 20:6 23:11,19 23:22 26:7,17 27:13 34:17</p>
---	---	---	---

46:24 49:13 53:20 <b>illinois.gov</b> 2:9 <b>immediate</b> 17:11,14 <b>immediately</b> 17:1 <b>impact</b> 9:10 17:6 <b>impacts</b> 21:2 <b>implementati...</b> 13:16,23 29:21 30:9 34:13 <b>implemented</b> 14:1 16:13,16 16:19 17:17 <b>implementing</b> 15:22 <b>implications</b> 31:1,3 <b>important</b> 16:14 <b>impose</b> 27:5 <b>inception</b> 28:1 <b>include</b> 20:6 35:7,21,22 36:8 <b>included</b> 16:2 27:18,24 28:9 37:14 <b>includes</b> 16:10 16:10 26:16 27:14	<b>including</b> 9:19 27:16 28:2 <b>inclusion</b> 28:3 <b>incremental</b> 34:19 <b>indiana</b> 20:7 <b>individual</b> 21:2 <b>industry</b> 16:10 <b>infeasible</b> 33:17 <b>information</b> 7:23 10:2,3 26:18 43:21 <b>initial</b> 14:15 28:3 <b>intended</b> 8:3 <b>intends</b> 15:21 <b>interested</b> 53:15 54:12 <b>internal</b> 38:1 <b>internet</b> 25:16 <b>interruption</b> 24:14 38:13 <b>intimately</b> 46:21 47:6 <b>involve</b> 47:8 <b>involved</b> 47:23 47:24 <b>involves</b> 46:23 <b>involving</b> 39:12 <b>ipcb</b> 2:6 <b>issue</b> 44:9 51:6 <b>issued</b> 10:10,15	<b>issues</b> 15:24 16:3 25:16 39:15 50:15 <b>it'll</b> 36:4 <b>j</b> <b>jacqueline</b> 4:3 <b>january</b> 9:6,21 <b>jennifer</b> 2:15 <b>job</b> 1:17 <b>joshua</b> 3:15 5:9 31:23 32:6 33:18 39:16 <b>journal</b> 9:5 <b>july</b> 33:11,11 34:16 37:7 <b>jumping</b> 31:7 <b>justify</b> 30:16 <b>k</b> <b>kansas</b> 20:8 <b>keep</b> 22:23 <b>kind</b> 21:10 34:10 48:19 <b>kinds</b> 15:24 <b>know</b> 13:24 16:3,10 17:18 34:16 37:23 39:1,16,16,17 40:9,12,13 41:7 43:4,19 44:9,16,20 45:4,6,9 47:12 47:16,19,20 48:3	<b>knowledge</b> 53:10 54:6 <b>known</b> 44:24 <b>l</b> <b>lab</b> 38:2 <b>lack</b> 27:22 <b>laden</b> 21:8 <b>lakes</b> 3:7 6:11 6:13 10:8,11 10:23 21:24 22:12 23:17,17 23:18 33:9 36:23 37:10 <b>land</b> 3:7 6:11 6:13 10:8,11 10:23 21:24 22:12 23:8,17 23:17,18 33:8 36:23 37:10 <b>landfill</b> 16:21 17:17 18:3 39:11 42:7 47:21 48:3 <b>landfills</b> 9:24 13:17 14:1 15:22 16:5 17:19 18:13 20:24 23:23,24 24:11,13,23 25:1,21,23 26:3,4,7,12,17 26:18,21,23 27:4,12,15,17
---	---	--	--

27:22 29:19,21 30:8,10,22 31:7 33:16 38:5,6,8,24 39:8,18 40:11 40:11,16,22 41:4 42:13,17 42:23 43:23 44:1,10,14,22 44:23 45:4,6 45:17 46:4,19 48:10,20,20 <b>lasalle</b> 1:14 <b>law</b> 3:9 <b>leachate</b> 14:10 15:2 17:5 20:4 26:22 40:1,4 <b>leaving</b> 27:12 <b>length</b> 24:7 <b>letter</b> 8:14 9:11 <b>lifetime</b> 15:15 <b>likely</b> 27:19 47:20 <b>limits</b> 30:12 36:11 <b>liner</b> 21:6 <b>liners</b> 21:7 26:22 39:19 <b>list</b> 8:23 26:16 30:13 44:14,16 44:18,22,23 45:2,7,10,11,15 45:17 46:2,3 51:10,13	<b>little</b> 15:7 24:20 25:13,14 37:3 <b>located</b> 23:6,18 <b>location</b> 1:13 <b>long</b> 39:13 48:12,16 <b>longer</b> 44:24 <b>look</b> 37:22 41:22 44:8 45:3,15 <b>looking</b> 44:20 <b>lot</b> 43:9 <b>low</b> 27:5,20 <b>lunch</b> 11:13	<b>manner</b> 24:4 <b>march</b> 9:17 <b>marie</b> 2:21 7:20 13:9 51:21 <b>marked</b> 12:11 12:18 28:15 29:4 32:20 <b>matches</b> 38:2 <b>material</b> 28:4 <b>matter</b> 1:3 7:7 <b>matters</b> 51:14 52:1 <b>mean</b> 11:9 18:2 42:16 46:18 47:12 <b>means</b> 24:15 <b>meet</b> 40:17 <b>meets</b> 26:9 <b>member</b> 2:14 2:15,16,18 7:11,14,15 <b>members</b> 8:22 11:6 <b>mentioned</b> 12:8 19:17 29:8 <b>meyer</b> 3:13 <b>mic</b> 25:9 <b>michael</b> 1:13 2:16 7:14 <b>michelle</b> 2:14 7:12 <b>michigan</b> 18:6 20:7 21:10	<b>microphone</b> 13:6 19:7 25:12 <b>mind</b> 8:2 25:15 <b>minimum</b> 17:2 <b>minnesota</b> 18:6 20:7 21:4 <b>minus</b> 34:20 <b>minute</b> 11:7 18:22 <b>minutes</b> 22:24 <b>missouri</b> 20:7 <b>modeling</b> 17:6 <b>moment</b> 50:14 <b>monday</b> 50:22 <b>monitor</b> 14:14 20:24 27:4 30:22 48:11,16 <b>monitored</b> 45:5 45:6 <b>monitoring</b> 14:9,13 15:4 15:14 16:12 17:2,23,24 18:2,10 20:19 20:20,20 21:1 21:11 24:8 27:16 30:23 31:6 34:20 36:9,13,15 40:17 42:1,5,7 42:14,16,17 48:18
	<b>m</b>		
	<b>made</b> 15:5 16:21 34:9 <b>majority</b> 23:15 <b>make</b> 30:24 41:4,7 51:20 <b>makes</b> 15:13 <b>makowski</b> 2:16 7:14 <b>manage</b> 27:13 <b>manageable</b> 34:19 <b>managed</b> 45:1 <b>management</b> 23:11 <b>manager</b> 3:3,15 23:7 <b>managing</b> 26:20		



<b>morning</b> 7:3 <b>move</b> 11:18 13:5 25:9,12 25:12 <b>multiple</b> 36:17	<b>ninety</b> 40:22 <b>non</b> 10:10 12:22 <b>noon</b> 11:13 <b>north</b> 1:14 <b>notary</b> 53:19 <b>notepad</b> 8:20 <b>notice</b> 9:3 <b>noticed</b> 33:21 <b>number</b> 19:24 28:14 29:3 32:19 36:3,13 43:18 <b>nwra</b> 10:8,12 10:22 11:19 12:14 13:23 14:18 36:23 37:10	<b>officer</b> 1:12 2:19 7:2,6,17 8:1 10:10,14 11:11 12:7,14 12:21 13:4,7 18:15,21 19:1 19:3,6,9,12 20:12,15 21:19 22:11,16,18,22 24:18 25:5,11 25:18 28:11,18 28:22 29:1,7 29:12 31:11,20 31:24 32:11,23 33:4 35:15,18 37:2 38:16,20 45:20 47:3 49:4,7 50:3,17 50:20 51:7,10 51:16,19 53:2 <b>oh</b> 11:11 18:23 18:23 22:16 24:15 29:2,14 37:2 38:14 42:20,22 51:19 <b>ohio</b> 20:7 <b>okay</b> 11:16,17 11:22 12:7,23 13:11 15:19 16:18 18:12,23 19:2,6,8 20:12 21:19,20 22:3 22:11,22 24:21 25:5,14,18	28:11 29:1 30:7 31:10,11 31:15,20,24 32:11,17 33:5 34:1,4,16,24 35:13 36:20 37:15 38:3 39:6 41:17,21 43:17 44:4 45:4,14 48:17 49:1,2,4 50:2,3 50:5,10,13,17 50:19,20 51:19 51:22 <b>oklahoma</b> 20:8 <b>old</b> 24:13 25:1 25:23 <b>ones</b> 32:13 42:24 45:10 <b>online</b> 9:1 <b>open</b> 51:4 <b>opened</b> 9:21 <b>operated</b> 24:4 <b>operating</b> 40:14,16 <b>operator</b> 23:18 45:1 <b>opinion</b> 28:8 33:22 38:4 <b>opportunity</b> 9:9 <b>oral</b> 9:2 <b>order</b> 10:21 11:17 33:12
<b>n</b>	<b>notary</b> 53:19 <b>notepad</b> 8:20 <b>notice</b> 9:3 <b>noticed</b> 33:21 <b>number</b> 19:24 28:14 29:3 32:19 36:3,13 43:18 <b>nwra</b> 10:8,12 10:22 11:19 12:14 13:23 14:18 36:23 37:10		
<b>n</b> 2:1 3:1 4:1 5:1 7:1 <b>n502</b> 1:14 <b>name</b> 7:5 8:11 8:23 31:21 <b>national</b> 3:4,11 3:13 6:5,8 10:7 49:11 <b>nebraska</b> 20:8 <b>necessarily</b> 41:15 <b>necessary</b> 25:3 26:1 <b>need</b> 8:18 30:16 48:11 51:14 52:1 <b>neither</b> 52:2 53:11 54:7 <b>never</b> 27:8 <b>new</b> 16:9 25:2 25:24 26:9 27:5 39:9 40:18 48:11 <b>nick</b> 3:21 <b>night</b> 33:12,21 38:4 39:6	<b>o</b>		
	<b>o</b> 7:1 <b>objections</b> 32:15 <b>obligations</b> 41:12 44:6 <b>obviously</b> 20:22 <b>occur</b> 13:23 15:18 <b>october</b> 24:1 51:5,17,23 <b>offer</b> 50:8,13 <b>office</b> 9:1		

37:11 41:19 46:8,14 51:7 <b>organization</b> 8:11 15:11 <b>orphaned</b> 26:19 <b>outcome</b> 53:16 54:12 <b>outside</b> 34:8 <b>oversight</b> 23:12 <b>own</b> 38:1 <b>owned</b> 26:19 <b>owner</b> 26:19 45:1 <b>owners</b> 27:11	24:3,5,9,9,10 24:11,23 25:20 25:21 26:3,3,4 26:7,9,12,21,23 27:1,4,12 29:19,20,21 30:7,8,10,21 33:13,15 34:5 38:24 41:24 42:7,12,21 43:23 45:13,17 46:4,7,13,19 48:10 <b>participating</b> 52:3 <b>particular</b> 14:13 16:16 17:6 18:6,8 <b>parties</b> 53:12 53:14 54:8,11 <b>parts</b> 16:5 <b>party</b> 10:2 <b>pass</b> 19:7 35:16 <b>period</b> 24:7 26:11,13 51:4 51:23 <b>permit</b> 3:15 18:4 23:7 35:10 43:14 48:16 <b>permits</b> 42:5 43:2 <b>person</b> 8:9,22	<b>personnel</b> 28:3 <b>persons</b> 51:10 <b>pertain</b> 27:15 <b>pervasiveness</b> 27:21 <b>petition</b> 46:23 47:8,16 <b>pfas</b> 9:20,24 14:4,8,12,14 15:2,3,11,14,22 16:12,19 17:1 17:17,23 18:7 18:8,10 20:19 21:1,8,11 24:11,23 25:2 25:21,24 26:9 27:4,5,16,21,23 28:1,8 30:12 30:22 31:1 34:23 39:9 40:18,19 41:1 41:15 46:13 48:11 <b>phased</b> 13:15 13:23 29:20 30:9 <b>place</b> 15:24 <b>please</b> 8:2,8,11 8:14,16,22 11:20,23 22:1 22:4,24 24:19 25:15 30:3 31:22 32:1,4 42:3,11 45:21	47:4 51:11,23 <b>point</b> 8:17 21:12 <b>policies</b> 27:3 <b>pollution</b> 1:1 2:6 7:4 23:8 46:24 47:8 <b>polyfluoroalk...</b> 9:20 <b>portion</b> 16:8 <b>posed</b> 8:3 <b>position</b> 34:6,9 38:7,23 <b>possible</b> 44:21 <b>post</b> 15:16 23:21 24:7,8 25:1,23 26:2 26:10,13,15 27:6,9 40:23 41:5,12 43:24 44:6 46:5,6 51:4,22 <b>posted</b> 9:3 50:23 <b>potentially</b> 39:12 47:24 <b>pre</b> 6:4,7,10,12 6:14 10:6,24 12:8,15 22:12 28:4,12 29:3 32:12 50:12 <b>prepared</b> 49:16 54:3
<b>p</b>			
<b>p</b> 2:1,1 3:1,1 4:1,1 7:1 <b>p.m.</b> 11:13,15 11:15 <b>page</b> 34:18 37:19 41:21 <b>panel</b> 18:24 <b>paper</b> 51:8 <b>parameters</b> 40:20 <b>part</b> 9:16,18,23 9:24 10:4,5 13:16,17 14:11 14:15,19 15:1 15:17 16:9 17:23 18:13 23:23,23 24:1			

<b>present</b> 2:12 3:2 4:2 7:10,16 <b>president</b> 3:6 23:3 <b>pretty</b> 36:7 41:23 <b>previous</b> 51:24 <b>previously</b> 12:15 29:8 <b>printed</b> 50:24 <b>prior</b> 8:12 17:12 28:3 53:5 <b>privileged</b> 7:24 <b>probably</b> 47:10 <b>procedural</b> 7:21 11:3 50:15 <b>procedure</b> 16:9 <b>proceeding</b> 7:6 11:17 52:5 54:4 <b>proceedings</b> 10:21 53:3,5,6 53:9 54:6 <b>process</b> 17:11 21:5,10 30:19 46:20,22 47:7 <b>produce</b> 8:9 <b>professional</b> 23:10 <b>program</b> 14:14 14:15,19 15:5 15:9,12,15	16:16 17:2,23 17:24 18:2,8 18:10 20:23 21:14,15 <b>programs</b> 14:5 14:9,10 17:17 34:14 <b>projects</b> 23:15 <b>promptly</b> 50:23 <b>proposal</b> 8:6 51:3 <b>proposed</b> 1:5 2:2 7:7 9:10,16 10:3 <b>protection</b> 3:16 3:19,22 4:4 6:16 9:8,15 34:8 49:13 <b>prove</b> 40:12 <b>provide</b> 9:11 10:2 35:4,5 36:14,15 39:4 48:17 <b>provided</b> 26:17 36:11 44:15 45:11 <b>providing</b> 23:16 39:1 <b>proving</b> 47:16 <b>public</b> 4:3 8:21 8:22,24 9:2 11:7 50:6,7 53:19	<b>publicly</b> 26:19 <b>pull</b> 41:20 <b>pump</b> 39:12 <b>pursuant</b> 9:7 23:22 44:15 <b>purview</b> 34:5 <b>put</b> 35:9,13 <b>putting</b> 36:2	14:23 15:20 21:20 27:15 28:2 29:9 31:12,18 32:24 33:1,9 41:18 41:22 43:22 47:4 49:2,5 50:2,5 51:1,24 <b>quick</b> 19:14 41:20
		<b>q</b>	
		<b>qualified</b> 53:7 <b>quality</b> 1:6 2:3 7:8 9:17,19 26:4 27:6 33:14 <b>quarter</b> 30:13 35:9 <b>quarterly</b> 18:4 <b>question</b> 8:10 13:15 16:23 17:16 19:14 20:13 29:11,17 29:18 30:1,3 30:20 31:4 42:6,8,10,14 44:14 45:3,16 45:21 <b>questioning</b> 11:5 <b>questions</b> 8:2,6 8:12 10:11,13 10:15,17 11:4 11:16 12:22,23 12:24 13:2	
			<b>r</b>
			<b>r</b> 2:1 3:1 4:1 7:1 <b>r22-18</b> 1:6 7:10 <b>raise</b> 11:23 22:4 32:4 <b>raised</b> 14:24 16:4 <b>ranked</b> 18:6 <b>ranking</b> 21:3,5 21:10 <b>rao</b> 2:19 5:4,8 7:18 13:1,9,11 13:14 18:18,23 19:2,5,8 24:17 25:10 29:10,14 29:16 30:4 31:10 35:17 <b>rcx</b> 5:2 <b>rdx</b> 5:2 <b>read</b> 11:1 12:9 12:16 22:13 28:13 32:14,18

<b>reading</b> 46:11 <b>real</b> 41:20 <b>realistically</b> 36:15 <b>really</b> 42:6 48:12 <b>reasonable</b> 24:12,24 25:22 33:23,24 34:7 34:15 37:8 <b>reasonableness</b> 9:22 34:12 35:6 38:8,24 49:20,23 <b>received</b> 9:13 10:6,9 12:12 12:19 28:16 29:5 32:21 44:18 <b>receives</b> 50:22 51:6 <b>recent</b> 15:19 37:23 38:10 51:12 <b>recognizing</b> 39:14 <b>record</b> 8:1,4 11:1 12:9,16 22:13 28:13 32:14,18 50:7 50:14,16,18 53:9 54:5 <b>recorded</b> 53:6	<b>recording</b> 53:8 54:4 <b>recycling</b> 3:4 3:12,14 6:5,8 10:7 49:11 <b>reduced</b> 53:7 <b>reference</b> 14:20 <b>referenced</b> 14:11,19,20 <b>referring</b> 16:1 41:18 <b>reflect</b> 8:5 <b>regard</b> 34:7,22 48:7 <b>region</b> 17:22 <b>register</b> 9:5 <b>regulated</b> 23:22 <b>regulations</b> 9:17 24:2 27:2 <b>regulatory</b> 34:13 39:17 46:17 <b>related</b> 16:4 23:12,15 53:11 54:7 <b>relative</b> 53:13 54:10 <b>release</b> 40:6 <b>released</b> 41:11 <b>relevant</b> 7:24 10:2 <b>remedial</b> 20:5	<b>remediation</b> 39:11 <b>removal</b> 39:13 <b>removed</b> 16:20 16:23 17:12 <b>render</b> 33:14 34:6 <b>repair</b> 26:2 46:6 <b>repeat</b> 30:2 45:21 <b>repeated</b> 8:19 <b>repetitious</b> 7:24 <b>report</b> 37:16,20 <b>reported</b> 1:16 <b>reporter</b> 8:7,16 11:20,22 12:6 22:1,3,10 24:15 25:4,9 31:21 32:1,3 32:10 38:14 45:19 47:1 50:19 <b>represent</b> 8:12 19:22 33:8 47:15 <b>representative</b> 30:17 <b>republic</b> 19:23 19:23 <b>request</b> 21:12 26:18 40:10 44:15	<b>requested</b> 9:6 9:11 21:11 <b>required</b> 10:18 15:3 30:22 39:18,21,24 40:4 42:5,16 43:1,4 <b>requirements</b> 24:6 39:17 43:15 <b>requires</b> 20:24 <b>resources</b> 27:22 <b>responded</b> 47:5 <b>response</b> 9:12 9:13 14:21,23 15:1 33:3 39:5 42:4,15 45:11 49:6,18 51:15 <b>responses</b> 10:12,17,17 15:19 27:14 33:11 34:17 41:19 <b>responsible</b> 23:11 <b>result</b> 48:2 <b>results</b> 30:14 30:23 <b>revenue</b> 26:24 44:11 47:22 48:21 <b>review</b> 45:2
--	---	--	--

<b>reviews</b> 17:9 <b>rhoades</b> 3:15 5:9 31:19,23 31:23 32:6 49:10 <b>right</b> 7:2 11:19 11:23 20:21 22:4 23:2 25:19 30:12 31:20 32:4 34:3 36:7,20 38:3 43:15 44:12 49:17,20 50:3,17 51:20 51:24 52:1 <b>room</b> 1:14 <b>rule</b> 17:13 21:12 28:1 <b>rulemaking</b> 7:6 7:9 15:21,23 16:9 <b>rules</b> 7:22,23 9:10 11:3 13:18 16:21	<b>sampling</b> 14:10 14:12,15 34:21 34:22 35:9,23 39:3 42:17,19 42:24 43:6,15 44:3,12 <b>san</b> 3:21 <b>saying</b> 31:5 38:7 41:9 <b>says</b> 37:19 42:11 <b>scenario</b> 36:12 48:1 <b>schedule</b> 17:18 <b>science</b> 23:9 <b>scientist</b> 2:20 7:18,19 <b>scope</b> 34:8 <b>scott</b> 3:11 49:10 <b>second</b> 29:12 30:13 49:1 <b>section</b> 3:15 7:22 8:14 9:7 11:2 23:7 <b>sections</b> 8:13 <b>see</b> 14:22 31:6 35:10 <b>seeing</b> 7:3 12:23 50:6 52:2 <b>seek</b> 46:12 <b>seems</b> 7:14 14:5 25:13	<b>seen</b> 36:22 37:9 <b>semi</b> 15:4 18:4 <b>senior</b> 3:3 4:3 <b>sentences</b> 24:19 <b>september</b> 1:10 10:14,16 50:22 51:2 <b>served</b> 51:9 <b>service</b> 4:3 51:10,13 <b>services</b> 3:7 19:23 23:4,13 <b>set</b> 10:10,15 42:21 <b>seven</b> 40:22 <b>sic</b> 7:18 9:13 <b>siegel</b> 54:2,15 <b>sievers</b> 3:11 5:11 49:6,9,10 50:1 <b>sign</b> 8:20 <b>signature</b> 53:17 54:14 <b>significant</b> 28:6 39:10,15 <b>similarities</b> 28:6 <b>simply</b> 27:12 <b>site</b> 14:16 17:8 26:9,20 36:16 <b>sites</b> 13:19 18:7 20:5 21:2,5,13 21:13 24:3,5,9 26:19 27:1,8	27:13,24 28:6 28:7,9 <b>situation</b> 41:13 <b>six</b> 9:19 <b>skills</b> 53:10 54:6 <b>slower</b> 25:15 <b>softly</b> 8:18 <b>solely</b> 8:4 <b>solid</b> 23:15 <b>sorry</b> 11:11 19:5 22:16,19 24:18 25:12 35:18 37:2 38:16 45:20 47:3 <b>sort</b> 17:7 <b>sounds</b> 45:14 <b>source</b> 39:13 <b>speak</b> 8:8 46:22 47:1,4,7 48:24 49:16,19,23 <b>speaking</b> 8:8 16:7 18:13 <b>specific</b> 36:3 <b>specify</b> 19:18 19:19 <b>speculate</b> 41:8 <b>spell</b> 8:14 <b>spoke</b> 36:1 <b>springfield</b> 7:13 23:6 31:14 33:2 50:10
<b>s</b>			
<b>s</b> 2:1 3:1 4:1 6:1 7:1 <b>sake</b> 8:7 <b>salk</b> 1:12 7:5 <b>sample</b> 37:15 43:2 44:1 <b>sampled</b> 30:13			

<b>staff</b> 7:16 8:3 10:20 <b>standard</b> 31:2 46:13,19,22 47:6,18 48:8 48:10 <b>standards</b> 9:19 9:24 10:5 13:16,24 15:23 16:19 24:12,24 25:2,22,24 26:5,9 27:6,20 28:8 29:22 30:8 31:2 33:14 34:14 39:9 40:13,18 40:24 46:7,14 46:15 48:12 <b>start</b> 7:3 11:19 <b>state</b> 8:11 9:5 15:1 17:16 20:22 23:10 27:13 31:21 45:5,7 53:20 <b>stated</b> 14:17 33:10 39:7 <b>statements</b> 14:6 <b>states</b> 17:20,21 18:5,10 19:17 19:19 20:1,3 20:19,24 21:17 <b>statewide</b> 18:9 20:23 21:14	<b>stating</b> 15:8 37:7 40:15 <b>statistics</b> 17:3 <b>status</b> 42:3 <b>stepped</b> 7:15 <b>stop</b> 8:17 22:20 <b>stopped</b> 40:14 44:11 <b>straight</b> 29:8 <b>street</b> 1:14 2:7 <b>study</b> 9:10 <b>subdocket</b> 9:22 <b>subject</b> 26:4 49:17,19 <b>submit</b> 8:24 <b>subpart</b> 24:5,9 28:7 <b>subsequent</b> 28:5 30:18 <b>substances</b> 9:20 <b>suggestion</b> 13:22 <b>suite</b> 2:7 <b>summary</b> 22:21 <b>sun</b> 9:4 <b>superfund</b> 20:5 <b>supplemental</b> 35:10 <b>support</b> 38:11 39:2 <b>sure</b> 30:11,20 31:4 35:17 37:4 45:23	<b>surprised</b> 27:11 <b>swear</b> 11:20 22:1 32:2 <b>swearing</b> 11:18 <b>sworn</b> 10:24 12:3 18:17,19 19:4 22:7 32:7 53:5 <b>system</b> 9:1 40:1 40:7,17 <b>systems</b> 21:3 26:22 39:13  <b>t</b>  <b>t</b> 6:1 <b>tables</b> 27:18 <b>taft</b> 3:9 <b>take</b> 11:14 <b>taken</b> 37:13 53:3,12 54:9 <b>takes</b> 51:3 <b>talk</b> 25:14 <b>talking</b> 8:13,18 43:13 <b>technical</b> 9:23 34:1 49:17 <b>technically</b> 33:16 39:8 <b>tell</b> 12:4 22:8 32:8 <b>ten</b> 11:7 <b>tentatively</b> 51:5	<b>term</b> 39:13 <b>termination</b> 27:20 <b>terms</b> 15:22 16:18 20:3 <b>test</b> 40:4 <b>testified</b> 12:5 22:9 32:9 <b>testifying</b> 53:5 <b>testimony</b> 6:4 6:12 8:6 10:6 10:24 12:8 14:11 22:12,21 23:16 26:16 27:14 28:5,21 29:3 35:6 36:21,22 37:6 45:13,13 50:12 50:13 <b>texas</b> 20:8 <b>thank</b> 12:6 13:10 17:15 18:12 20:9,11 21:16,22 22:10 25:18 28:10,11 31:10,15 32:10 49:2,4 50:2 51:21 52:2 <b>thanks</b> 13:12 <b>things</b> 20:23 <b>think</b> 15:23 16:3,7,8,14 29:20 30:23 41:1,3,3
---	--	---	---

<b>thinks</b> 13:24 <b>thought</b> 18:23 <b>three</b> 16:5 <b>time</b> 1:11 8:9 10:19 27:3 49:3 51:14 <b>times</b> 9:4 <b>tin</b> 2:18 5:6 7:15 20:14,17 <b>tipsord</b> 2:21 5:5:20 13:3,5,10 19:11,13,16 20:11 22:17,19 23:1 25:7 28:24 29:24 51:15,17 <b>today</b> 7:10,16 7:20 8:3,22 49:12,16,22 50:8,12 <b>today's</b> 10:21 11:17 50:21 51:2 <b>together</b> 35:9 36:2 <b>topic</b> 49:23 <b>transcriber</b> 54:1 <b>transcript</b> 8:10 50:21,23 51:6 54:3,5 <b>transcriptionist</b> 53:8	<b>treat</b> 27:22 39:12 <b>treatment</b> 40:17 <b>trevor</b> 3:18 <b>true</b> 34:21 48:5 53:9 54:5 <b>truth</b> 12:4,4,5 22:8,8,9 32:8,8 32:9 <b>trying</b> 14:22 <b>tuesday</b> 1:10 <b>turn</b> 11:4 <b>two</b> 14:3 24:19 <b>type</b> 17:8 48:18 <b>typewriting</b> 53:7 <b>typical</b> 27:17 <b>typically</b> 24:8	<b>undertaken</b> 41:16 <b>unlined</b> 39:11 <b>update</b> 17:10 <b>updated</b> 44:17 <b>upgrading</b> 36:4	<b>want</b> 19:20 28:22 32:16 44:8 48:15 <b>waste</b> 3:4,11,13 6:5,8 10:7 21:8 23:16 24:1 26:23 49:11 <b>way</b> 31:8 <b>we've</b> 40:9 45:16 46:2 <b>weighs</b> 9:2 <b>welcome</b> 7:4 <b>welcomed</b> 10:3 <b>wells</b> 36:4,13 36:17 <b>went</b> 42:2 <b>wie</b> 2:15 <b>wish</b> 8:21 <b>witness</b> 11:5,5 11:21 12:3 13:8,12 21:21 22:2,7 23:2 24:21 25:17,19 30:2 32:2,7 47:5 49:12,22 53:4 <b>witnesses</b> 5:2 11:18 13:2 <b>work</b> 17:21,21 17:22 18:10 19:17,24 20:3 20:5 30:11 <b>worked</b> 21:17
	<b>u</b>	<b>v</b>	
	<b>unable</b> 40:12 <b>uncertain</b> 48:2 <b>under</b> 7:22 11:1 16:5,17 22:24 40:21 <b>understand</b> 16:24 29:24 31:4 42:9 <b>understanding</b> 16:12 36:21 42:22 43:5,6,8 43:17 44:8	<b>value</b> 35:22 <b>van</b> 2:7,15 <b>vanessa</b> 2:5 7:17 <b>vanessa.horton</b> 2:9 <b>variance</b> 46:13 <b>vast</b> 23:15 <b>verify</b> 35:22 <b>version</b> 51:13 <b>versus</b> 43:4 <b>vice</b> 3:6 23:3 <b>vicinity</b> 26:8 <b>videoconfere...</b> 2:17,22 3:5,8 3:10,12,14,17 3:20,23 4:5 7:13 <b>viewed</b> 50:24 <b>virtual</b> 24:13 38:12 <b>virtually</b> 27:7	
		<b>w</b>	
		<b>wait</b> 29:12 <b>walk</b> 27:12	

<b>worst</b> 36:12 <b>worth</b> 45:14 <b>write</b> 8:23 <b>written</b> 8:24 9:2 10:10,12 10:15,16 26:16	
<b>x</b>	
<b>x</b> 5:1 6:1	
<b>y</b>	
<b>yeah</b> 11:10 13:1,8 18:21 19:20 20:15 22:23 24:17 29:10,17 30:5 31:3 36:8 37:19,22 38:1 38:3 40:21 42:11 43:17,20 44:5,7,21 45:8 46:9 48:9 <b>year</b> 17:9 <b>years</b> 23:14,20 26:24 37:24 40:13,24 43:19 44:10,11 47:22 48:21 <b>yesterday</b> 15:20 32:14	
<b>z</b>	
<b>zwick</b> 3:9 5:10 33:3,5,7,8 35:20 37:4,5	