

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)
)
AMENDMENTS TO 35 ILL.) R23-18(1)
ADMIN. CODE PARTS 201, 202) (Rulemaking-Air)
AND 212.)
) First Hearing
)

REPORT OF PROCEEDINGS OF THE HEARING in
the above-captioned case, called for examination
pursuant to the provisions of the State of
Illinois Environmental Protection Agency, heard
by MS. CHLOE SALK, Hearing Officer, taken before
Kathy L. Johnson, C.S.R., on September 27th,
2023, at the hour of 9:00 a.m., at the Illinois
Environmental Protection Agency, Sangamon Room,
1021 N. Grand Avenue East, Springfield, Illinois,
62701.

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E X H I B I T S

Hearing Officer Exhibit No. 1
Hearing Officer Exhibit No. 2
Hearing Officer Exhibit No. 3
Hearing Officer Exhibit No. 4
Hearing Officer Exhibit No. 5
Hearing Officer Exhibit No. 6
Hearing Officer Exhibit No. 7
(All exhibits retained by Ms. Salk)

CERTIFICATE OF REPORTER 129

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11

12 BOARD MEMBERS PRESENT:

13 MICHELLE GIBSON

09:01:56

09:01:56

14 JENNIFER VAN WIE

09:01:59

09:01:59

15 MICHAEL D. MANKOWSKI

09:02:01

16 ANAND RAO

17 MARIE TIPSORD, General Counsel

18

19

20

21

22

23

24

1 P R O C E E D I N G S

2 HEARING OFFICER: Good morning, and 09:01:23
3 welcome to the Illinois Pollution Control 09:01:24
4 hearing. My name is Chloe Salk and I am the 09:01:26
5 hearing officer for this rulemaking proceeding 09:01:31
6 entitled Amendments to 35 Illinois Administrative 09:01:31
7 Code 201, 202 and 212. 09:01:37

8 The Board docket number for this 09:01:39
9 rulemaking is R23-18(A). To get started, I want 09:01:39
10 to quickly go through three preliminary items: 09:01:42
11 Introductions, the procedure to date, and then 09:01:46
12 housekeeping, including the order in which we'll 09:01:49
13 plan to proceed. 09:01:49

14 First, introductions: Present today from 09:01:52
15 the Board are Board member Michelle Gibson, the 09:01:53
16 lead Board member assigned to this docket, Board 09:01:58
17 member Jennifer Van Wie, Board member Michael D. 09:01:59
18 Mankowski. 09:01:59

19 And present from the Board's staff are 09:02:03
20 Anand Rao of the Board's technical staff, and 09:02:03
21 General Counsel Marie Tipsord who is in the 09:02:03
22 audience today. 09:02:03

23 Second, the Board's procedure to date: 09:02:12
24 On August 7th, 2023, the Illinois Environmental 09:02:13

1 Regulatory Group, Rain Carbon, LLC, Dynegy 09:02:13
2 Midwest Generation, LLC, and Midwest Generation, 09:02:13
3 LLC, American Petroleum Institute, and East 09:02:26
4 Dubuque Nitrogen Fertilizer, LLC, filed 09:02:30
5 rulemaking proposals. 09:02:31
6 In an order on August 17th the Board 09:02:32
7 accepted the proposals for hearing. In an order 09:02:34
8 on August 17th, 2023 the hearing officer 09:02:37
9 scheduled two hearings. 09:02:40
10 Notice for this hearing was posted on 09:02:42
11 August 21st, 2023 in the Chicago Sun Times; on 09:02:43
12 August 22nd in the Belleville News Democrat and 09:02:48
13 the News Tribune; and on August 23rd in the 09:02:52
14 News-Gazette, the State Journal-Register, and the 09:02:56
15 Galena Gazette. 09:02:56
16 Today we are of course holding the first 09:03:01
17 hearing. In the order scheduling hearings, the 09:03:02
18 hearing officer directed participants intending 09:03:04
19 to testify at this hearing to pre-file their 09:03:05
20 testimony no later than August 28th. 09:03:07
21 Another hearing officer order granted 09:03:10
22 Rain Carbon's motion to extend the deadline for 09:03:14
23 its pre-filed testimony to September 5th. On 09:03:15
24 August 28th the Board received pre-filed 09:03:18

1 testimony from Ross Garres, David Wall, John 09:03:20
2 Derek Reese, Phillip G. Crnkovich, Sharene 09:03:24
3 Shealey, and Cynthia Vodopivec. On September 5th 09:03:29
4 the Board received pre-filed testimony from Bryan 09:03:33
5 Higgins. 09:03:34
6 The order also directed participants to 09:03:35
7 pre-file questions based on that testimony by 09:03:37
8 Wednesday, September 20th. 09:03:40
9 On that date the Board received pre-filed 09:03:41
10 questions from the Illinois Attorney General's 09:03:44
11 Office. In a hearing office order on that date 09:03:46
12 the Board also submitted questions. 09:03:50
13 The Board posted all of these documents 09:03:51
14 to its Clerk's Office On-Line, or COOL, under 09:03:53
15 this docket number R23-18(A) as they were filed. 09:03:58
16 Finally, our housekeeping for this 09:04:03
17 hearing. This hearing is governed by the Board's 09:04:04
18 procedural rules. Under Section 102.426 of those 09:04:07
19 rules all information that is relevant and is not 09:04:12
20 repetitious or privileged will be admitted by the 09:04:15
21 hearing officer into the record. 09:04:19
22 Please bear in mind that any questions 09:04:20
23 posted today by the Board and its staff are 09:04:22
24 intended solely to help develop a clear and 09:04:25

1 complete record for the Board's decision, and 09:04:28
2 those questions do not reflect any determination 09:04:30
3 or judgment on the proposal, testimony, or 09:04:32
4 questions. 09:04:35

5 For the sake of our court reporter please 09:04:35
6 speak clearly and avoid speaking at the same time 09:04:37
7 as another person so that we can help produce a 09:04:40
8 clear transcript. If you are asking questions 09:04:43
9 please state your name and the organization you 09:04:44
10 represent prior to any questions. 09:04:47

11 Also, if talking about sections of the 09:04:49
12 rules please spell out the Section letters such 09:04:51
13 as 620.101(D), as in dog. Miss Court Reporter, 09:04:54
14 please feel free to stop me or anyone else if we 09:04:58
15 are going too fast, talking too softly, or if you 09:05:01
16 need something repeated. 09:05:05

17 There's a sign-in sheet at the door over 09:05:06
18 there in the back for anyone who wants to sign up 09:05:09
19 for public comment. So if there are any members 09:05:11
20 of the public in person here today, please go 09:05:13
21 ahead and write your name on the list. 09:05:15

22 As a reminder, anyone can submit written 09:05:17
23 comments on the Board's Clerk's Office On-Line 09:05:20
24 system. The Board weighs oral and written public 09:05:22

1	comment equally. As to the order of today's	09:05:24
2	proceedings, we'll call the following witnesses	09:05:27
3	in this order. First will be Ross Gares and	09:05:29
4	Bryan Higgins. Then it will be David Wall, then	09:05:32
5	John Derek Reese, then Phillip G. Crnkovich, and	09:05:36
6	then Sharene Shealey and Cynthia Vodopivec.	09:05:40
7	After being duly sworn in, the pre-filed	09:05:44
8	testimony will be entered into the record as if	09:05:44
9	read under Section 102.424(f) of the Board's	09:05:48
10	procedural rules.	09:05:53
11	We will then turn to questions for each	09:05:54
12	witness with pre-filed questions from the	09:05:56
13	Attorney General's Office first, then to any	09:05:58
14	other questions from any participants and then	09:06:00
15	the Board's pre-filed questions.	09:06:03
16	Should we finish with witness questioning	09:06:07
17	today, at the end of the hearing I'll ask if	09:06:09
18	there are any public comments from the members of	09:06:10
19	the public.	09:06:13
20	I anticipate taking a 10-minute break	09:06:13
21	around 10:30 a.m. and then breaking for an hour	09:06:15
22	for lunch from noon to 1:00, and then another	09:06:18
23	short break -- afternoon break -- around 3:00	09:06:20
24	p.m. If we haven't finished with questions and	09:06:23

1	public comments already we'll end today at around	09:06:25
2	5:00 p.m. Are there any questions about our	09:06:27
3	order of proceeding? Okay. Seeing none, we will	09:06:29
4	turn to testimony starting with Ross Gares and	09:06:32
5	Bryan Higgins. Are they ready to go?	09:06:37
6	Okay. We'll have you step up to the	09:06:40
7	front table up here.	09:06:42
8	MR. LORING: One procedural question.	09:06:42
9	HEARING OFFICER: Yeah.	09:06:42
10	MR. LORING: There are some questions	09:06:42
11	that we -- yeah, this is David Loring on behalf	09:06:55
12	of Rain Carbon. There are some questions that	09:06:57
13	were filed by the Illinois Attorney General that	09:07:04
14	Ross Gares will answer and some Bryan Higgins	09:07:07
15	will answer, and so they may be out of order.	09:07:10
16	HEARING OFFICER: That's fine.	09:07:10
17	MR. LORING: I'm not sure how we want to	09:07:14
18	proceed with that.	09:07:14
19	HEARING OFFICER: Yeah. Yeah, we will	09:07:16
20	have you sworn in first and then we'll go to	09:07:17
21	questions and the questions will be directed at	09:07:19
22	each person. Yeah, like a panel. Okay.	09:07:21
23	So would the court reporter please swear	09:07:27
24	in the witnesses?	09:07:29

1	(Witnesses sworn)	09:07:29
2	ROSS GARES and BRYAN HIGGINS,	09:07:29
3	being both duly sworn on oath, were examined and	09:07:29
4	testified as follows:	09:07:29
5	HEARING OFFICER: Okay. As mentioned	09:07:38
6	earlier, the witness' testimony is entered into	09:07:39
7	the record as if read, and we'll enter Ross	09:07:41
8	Gares' testimony as Hearing Exhibit Number One	09:07:46
9	and then Bryan Higgins' testimony as Hearing	09:07:48
10	Exhibit Number Two.	09:07:52
11	So we'll proceed with questions first	09:07:58
12	from the Attorney General's Office. If you would	09:08:00
13	like to step up to the podium. And if you could	09:08:02
14	please state your name first for the court	09:08:02
15	reporter.	09:08:02
16	MR. JAMES: Jason James, Illinois	09:08:17
17	Attorney General's Office.	09:08:18
18	HEARING OFFICER: And go ahead.	09:08:20
19	MR. JAMES: Sure. We pre-filed a set of	09:08:21
20	questions so I'll just go ahead and read on the	09:08:27
21	pre-filed questions and then if I have follow-ups	09:08:29
22	to those I'll go ahead and ask you after you	09:08:31
23	answer.	09:08:32
24	DIRECT EXAMINATION BY	09:08:32

1	MR. JAMES:	09:08:32
2	MR. JAMES: Our pre-filed question number	09:08:35
3	one; given that Rain Carbon's proposed amendments	09:08:36
4	are site-specific, does Rain Carbon agree that	09:08:39
5	the proposal is subject to the requirements of 35	09:08:41
6	Illinois Administrative Code 102.110?	09:08:44
7	MR. LORING: Again, this is David Loring,	09:08:49
8	counsel for Rain Carbon. One comment on that	09:08:51
9	question before I ask my client to respond. I	09:08:53
10	believe, unless I'm mistaken, that -- that you	09:08:57
11	were likely referring to 102.210 --	09:09:01
12	MR. JAMES: Okay.	09:09:01
13	MR. LORING: -- which governs the	09:09:08
14	contents for site-specific rulemaking. Assuming	09:09:09
15	that that's correct, I do believe that this calls	09:09:11
16	for a legal conclusion. If we need to file any	09:09:14
17	type of post-hearing brief we will do so, but we	09:09:17
18	do have a response to your question.	09:09:21
19	MR. JAMES: Okay. Yes, please go ahead.	09:09:22
20	MR. GARES: Ross Gares, Rain Carbon.	09:09:25
21	Rain Carbon's proposal was filed in this sub	09:09:27
22	docket at the direction of the Board's July 6th	09:09:28
23	order in this proceeding which directed anyone	09:09:31
24	who sought to file a rulemaking proposal for	09:09:33

1 alternative standards during startup, 09:09:36
2 malfunction, and breakdown, to do so by August 09:09:39
3 7th, 2023. We agreed with the Board's 09:09:43
4 determination that this is the proper forum to 09:09:44
5 submit Rain Carbon's proposal. 09:09:47

6 MR. JAMES: Okay. Question number two; 09:09:52
7 Rain Carbon acknowledges that Illinois EPA's -- 09:09:54
8 and by the EPA I mean Environmental Protection 09:09:57
9 Agency -- authority to grant exceptions to 09:10:00
10 emission limitations during SMB events stem from 09:10:02
11 their regulatory provisions appealed in R23-18. 09:10:06

12 R23-18(A), Rain Carbon's regulatory 09:10:10
13 proposal. I'll skip the citations in the future 09:10:14
14 if that makes sense since they're all written in 09:10:18
15 our pre-filed comments. 09:10:20

16 U.S. EPA founded those provisions, 09:10:21
17 including the prima facie defense provisions in 09:10:25
18 35 Illinois Administrative Code, Section 201.2-65 09:10:27
19 were substantially inadequate because they may 09:10:32
20 grant a state official unilateral exercise of 09:10:35
21 discretionary authority in violation of the Clean 09:10:37
22 Air Act's enforcement structure. 09:10:41

23 In light of the above context, what does 09:10:42
24 Rain Carbon mean when it argues that the, quote, 09:10:44

1	relief provided to Rain Carbon's facility during	09:10:47
2	SMB events does not reflect Illinois EPA's	09:10:48
3	exercise of enforcement discretion or	09:10:53
4	authorization under prima facie defense to	09:10:54
5	enforce it during an SMB event?	09:10:54
6	MR. LORING: Again, this is David Loring.	09:11:00
7	I'll start off by saying I do think that question	09:11:01
8	calls for a legal conclusion. If we need to file	09:11:05
9	something post hearing, we will, but we do have a	09:11:06
10	response.	09:11:06
11	MR. GARES: Ross Gares, Rain Carbon.	09:11:10
12	Rain Carbon explained its meaning later in the	09:11:12
13	paragraph quoted by Illinois AG on page three of	09:11:14
14	its Statement of Reasons.	09:11:19
15	Rain Carbon explained that the SMB relief	09:11:21
16	of the facility and the CAAPP permit is	09:11:25
17	authorized by separate Illinois EPA's settlement	09:11:26
18	agreement in 2017.	09:11:29
19	In other words, Rain Carbon is required	09:11:33
20	by the settlement agreement to maintain a minimum	09:11:33
21	inlet pyroscrubber temperature 1800 degrees	09:11:37
22	Farenheit except during startup, malfunction,	09:11:40
23	breakdown events.	09:11:43
24	MR. JAMES: And is that settlement	09:11:45

1 affected by the previous rulemaking in R23-18, or
2 the rules that are being proposed today by Rain
3 Carbon?

09:11:47

09:11:51

09:11:51

4 MR. GARES: No.

09:11:51

5 MR. JAMES: Okay. Question number three.

09:12:01

6 Rain Carbon notes that its kilns take less than

09:12:02

7 24 hours to start up and that malfunctions or

09:12:06

8 breakdowns are typically resolved within four to

09:12:09

9 five hours.

09:12:11

10 Rain Carbon's regulatory proposal 15.

09:12:14

11 Rain Carbon also notes that each kiln experiences

09:12:14

12 fewer than 10 start-ups annually. And then a

09:12:17

13 couple subquestions to number three.

09:12:20

14 On average, how many malfunctions and

09:12:22

15 breakdowns does each kiln experience on an annual

09:12:24

16 basis over the past decade?

09:12:27

17 MR. GARES: Ross Gares, Rain Carbon. In

09:12:32

18 response to these questions and a similar

09:12:34

19 question by the Board, Rain Carbon intends to

09:12:37

20 submit to the Board records related to hours of

09:12:39

21 operation as well as startup, malfunction, and

09:12:42

22 breakdown, and associated pyroscrubber and the

09:12:44

23 temperatures.

09:12:48

24 It is not appropriate to average the

09:12:49

1 number of operational hours or the number of 09:12:51
2 startup, shutdown, and malfunction hours over the 09:12:53
3 past decade as such averages do not reflect 09:12:57
4 changes in operation. That is based on market 09:13:00
5 conditions. 09:13:03

6 In some years the facility has operated 09:13:05
7 periodically on campaigns, and in other years the 09:13:06
8 facility has operated more continuously. 09:13:10

9 MR. JAMES: All right. And would that 09:13:16
10 response also apply to question 3B? 09:13:16

11 MR. LORING: It would, yes. 09:13:21

12 MR. JAMES: Okay. 09:13:21

13 MR. RAO: Mr. James, I guess a 09:13:27
14 clarification. You mentioned that your response 09:13:29
15 addressed a Board question on some. Are you 09:13:32
16 referring to the Board's question number six? 09:13:32

17 MR. LORING: I believe it's question, 09:13:34
18 yes, number 6B. 09:13:56

19 MR. RAO: And you did mention that you'd 09:14:00
20 be filing something in your comments also, right? 09:14:03

21 MR. LORING: That's correct. So that 09:14:06
22 data that both the Board requested and the AG 09:14:08
23 asked for, we'll submit that post hearing. 09:14:11

24 MR. RAO: Mr. Gares, you -- in response 09:14:13

1 to Mr. James' question -- you mentioned that, you 09:14:16
2 know, it's not appropriate to use averages 09:14:21
3 because your operation may change depending on 09:14:22
4 the market conditions. 09:14:25

5 The numbers that you gave in your 09:14:28
6 testimony about less than five start-ups per -- 09:14:29
7 and 10 annual functions per year -- is that based 09:14:34
8 on normal operations or when, you know, you're 09:14:38
9 operating at a higher level to meet the market 09:14:41
10 conditions? 09:14:44

11 Or what kind of, you know, what do these 09:14:45
12 numbers represent in terms of your operation? 09:14:48

13 MR. GARES: Ross Gares, Rain Carbon. The 09:14:48
14 data I'm submitting in the document was for the 09:14:48
15 three years, which the plant has run 09:14:56
16 campaign-type operations as market conditions -- 09:14:59
17 our need, our customer needs -- were met due to 09:15:13
18 market conditions. 09:15:15

19 If we look at the normal -- I mean, Rain 09:15:15
20 Carbon's position is we want to run the plant 09:15:21
21 continuously -- 09:15:23

22 MR. RAO: Yeah. 09:15:23

23 MR. GARES: -- and we don't want to start 09:15:24
24 it up and shut it down. So it's hard -- that's 09:15:26

1 why I say it's hard -- to use an average because 09:15:28
2 we don't really have a good average. I think the 09:15:33
3 last time we had a good year of operation, 09:15:36
4 continuous operation, was in 2017 at that 09:15:38
5 facility. So that's why the answer was it was -- 09:15:42
6 it's not good to average that. 09:15:45

7 MR. RAO: And do you believe based on, 09:15:49
8 you know, the experience that Rain Carbon over 09:15:52
9 the years, that you need like 30 days per year 09:15:56
10 for each kiln in terms of the relief that you 09:16:00
11 have requested? 09:16:06

12 MR. GARES: We believe that we needed to 09:16:10
13 submit something very quickly in response to this 09:16:12
14 rulemaking change, and that the modeling showed 09:16:17
15 that a worst-case scenario, if we did do that for 09:16:22
16 720 hours, we would not impact the operation. 09:16:29

17 MR. RAO: That I understand. All I was 09:16:33
18 asking was do you need those 30 days of 720 09:16:34
19 hours? Because, you know, based on the numbers 09:16:39
20 here provided as for breakdown and malfunctions 09:16:41
21 it would seem that you would not need 30 days. 09:16:44

22 If you can take a look at it and get back 09:16:48
23 to us in your comments or -- 09:16:50

24 MR. LORING: Sure. Yeah, we'll be able 09:16:51

1 to provide some of that information in the 09:16:53
2 context of the historical data and why we've 09:16:55
3 requested the amount of hours or amount of days, 09:16:58
4 however you want to look at it, in the post 09:17:00
5 hearing. 09:17:00

6 MR. RAO: Thank you. Thank you. 09:17:03

7 MR. JAMES: So pick up at pre-filed 09:17:05
8 question 3C. Is it appropriate to assume that 09:17:08
9 when a kiln is experiencing an SMB event the 09:17:11
10 temperature in the kiln is less than 1800 degrees 09:17:16
11 Fahrenheit? 09:17:16

12 By extension is it appropriate to assume 09:17:20
13 that when the temperature in the kiln is less 09:17:22
14 than 1800 degrees Fahrenheit the kiln was 09:17:26
15 operating in excess of its CAAPP emissions 09:17:26
16 limitations? 09:17:28

17 MR. GARES: Ross Gares, Rain Carbon. As 09:17:31
18 an initial response the relevant 1800 degrees 09:17:33
19 Fahrenheit temperature is measured at the inlet 09:17:36
20 of the pyroscrubber. This differs from the kiln 09:17:38
21 temperature which is hotter than the inlet of the 09:17:42
22 pyroscrubber. 09:17:47

23 The facility is prohibited under its 09:17:47
24 CAAPP and the 2017 settlement agreement in 09:17:49

1 Illinois EPA from operating when the three hour 09:17:51
2 average of the inlet to the pyroscrubber is below 09:17:56
3 1800 degrees Fahrenheit, unless it is during a 09:17:58
4 start-up, malfunction, or breakdown. 09:18:02
5 Below that temperature, the pyroscrubber 09:18:06
6 cannot ensure compliance at all times with the 09:18:08
7 opacity, PM, and VOM emission limits applicable 09:18:13
8 to the kilns. 09:18:14
9 When the pyroscrubber and the temperature 09:18:14
10 is below 1800 degrees Fahrenheit it is either 09:18:19
11 because the kiln is in startup or because the 09:18:22
12 facility has stopped adding feed to the kiln as a 09:18:26
13 result of a malfunction or breakdown at the 09:18:29
14 facility. 09:18:32
15 The converse is not always true for 09:18:34
16 malfunctions and breakdowns. Some malfunctions 09:18:36
17 or breakdowns are remedied quickly enough and the 09:18:39
18 facility does not need to stop the kiln -- the 09:18:44
19 feed to the kiln -- and therefore the 09:18:45
20 pyroscrubber ambient temperatures do not always 09:18:48
21 drop below 1800 degrees Fahrenheit in a rolling 09:18:49
22 three hour average. 09:18:53
23 MR. JAMES: Thank you. Going on to 3D, 09:18:55
24 there are a couple of footnotes from my pre-filed 09:19:00

1 questions, but I'll skip those when just talking 09:19:03
2 about that today. Looking at only at start-ups, 09:19:07
3 Rain Carbon exceeds its emissions limitations 09:19:09
4 approximately 432 hours per year, equivalent to 09:19:11
5 5.4 percent of its estimated operating time. 09:19:15
6 Rain Carbon proposes to establish an 09:19:18
7 annual limit on the number of hours, 720, that 09:19:20
8 each kiln may, during SBB events, exceed the PM 09:19:23
9 standard. 09:19:25
10 In other words, if the proposed 09:19:26
11 amendments were adopted, Rain Carbon could exceed 09:19:27
12 its non-SMB emissions limitations for PM -- 09:19:29
13 that's particulate matter -- for up to 1440 hours 09:19:32
14 per year, equivalent to 18 percent of its 09:19:36
15 estimated operating time. 09:19:38
16 Why does Rain Carbon believe that its 09:19:41
17 alternative emission limitation for PM is 09:19:42
18 appropriate and narrowly tailored? How, if at 09:19:44
19 all, does Rain Carbon's proposal avoid 09:19:47
20 backsliding prohibited by Section 110 sub L of 09:19:48
21 the Clean Air Act? 09:19:51
22 And I recognize some of this is already 09:19:52
23 addressed by other questions that Mr. -- but the 09:19:54
24 aspects that weren't brought up, could you answer 09:19:57

1 those?

09:19:59

2 MR. GARES: Sure. Ross Gares, Rain

09:20:00

3 Carbon. By their very nature, startups and

09:20:02

4 malfunctions and breakdowns events can vary

09:20:06

5 greatly in a given year.

09:20:10

6 Per the Illinois AG request in the prior

09:20:12

7 question, we'll provide historic startup,

09:20:15

8 malfunction, and breakdown data following this

09:20:17

9 hearing.

09:20:20

10 During the last three years, 2021, 2022

09:20:22

11 and 2023, due to market conditions the facility

09:20:25

12 has operated for brief campaigns during which

09:20:29

13 time the kiln will operate for a few weeks to

09:20:33

14 fulfill customer demand, and then go offline.

09:20:35

15 Prior to 2021 there were years, such as

09:20:38

16 2017 and 2019, where both kilns operated more

09:20:42

17 steady state. The number of malfunctions and

09:20:47

18 breakdowns can increase the more hours the

09:20:48

19 facility operates.

09:20:51

20 Similarly, operating and campaigns can

09:20:54

21 require more startups in a given year. While the

09:20:56

22 Illinois AG is correct to observe that the

09:21:00

23 average number of startups and malfunctions have

09:21:02

24 not equaled or exceeded 720 hours per year as

09:21:05

1 proposed, the 720 hours was selected for two 09:21:09
2 reasons. First, while it is in the facility's 09:21:13
3 best interest to minimize the duration of such 09:21:15
4 events there may be years when startup and 09:21:18
5 malfunction, breakdown hours exceed the recent 09:21:21
6 past. 09:21:25

7 Because there are no technical or 09:21:26
8 economically feasible options to control 09:21:28
9 emissions while the inlet pyroscrubber 09:21:31
10 temperature is below 1800 degrees, we propose 720 09:21:31
11 hours to ensure a satisfactory margin of 09:21:35
12 compliance. 09:21:39

13 Second, and relatedly, we conducted 09:21:41
14 extremely conservative ambient air quality 09:21:43
15 modeling to demonstrate that 720 hours per kiln 09:21:46
16 per year would not interfere with the applicable 09:21:50
17 PM National Ambient Air Quality standards. 09:21:57

18 In other words, while we do not 09:21:58
19 anticipate reading -- meeting -- 720 hours per 09:22:01
20 kiln in a year to exceed the PM process weight 09:22:05
21 limit under part 212, the modeling demonstrates 09:22:09
22 that such an occurrence would not have a negative 09:22:13
23 impact on air quality. 09:22:16

24 We respectfully refer the Illinois AG to 09:22:18

1	the Technical Support documents submitted in	09:22:22
2	conjunction with the pre-filed testimony of Bryan	09:22:24
3	Higgins, specifically sections two and three of	09:22:27
4	the pre-filed testimony, that details how Rain	09:22:30
5	Carbon's proposed AELs are consistent with	09:22:34
6	Section 110.1 of the Clean Air Act.	09:22:37
7	MR. JAMES: Thank you. And then number	09:22:42
8	four; USEPA describes startup events as, quote,	09:22:46
9	part of the normal operation of the source and	09:22:50
10	should be accounted for in the design and	09:22:53
11	operation of the source.	09:22:55
12	USEPA goes on to detail the, quote,	09:22:59
13	correct approach for creating an emissions	09:22:59
14	limitation during startup which considers four	09:23:02
15	factors.	09:23:03
16	One, the emission limitation contains no	09:23:04
17	exception for emissions during SSM or SMB events.	09:23:06
18	The component of any alternative emissions	09:23:11
19	limitation that applies during startup and	09:23:13
20	shutdown is clearly stated and obviously is an	09:23:14
21	emission limitation that applies to the source.	09:23:17
22	The component of any alternative emission	09:23:20
23	limitation that applies during startup and	09:23:22
24	shutdown meets the applicable stringency level	09:23:24

1 for this type of emission limitation. And four, 09:23:27
2 the emission limitation contains requirements to 09:23:29
3 make it legally and practically enforceable. Do 09:23:32
4 each of Rain Carbon's proposed amendments satisfy 09:23:35
5 these factors? If so, please provide bases for 09:23:36
6 each factor in each proposed amendment. 09:23:42

7 MR. LORING: And just again as a, for the 09:23:43
8 record, as an initial matter I do think that this 09:23:45
9 calls in part for a legal -- a legal conclusion. 09:23:48
10 But with that -- with that said, I'll ask Bryan 09:23:49
11 Higgins to respond on behalf of Rain Carbon. 09:23:53

12 MR. HIGGINS: Bryan Higgins, Rain Carbon. 09:23:56
13 Yes, Rain Carbon's Statement of Reasons provides 09:23:57
14 substantial support that each of the proposed 09:24:00
15 AELs is consistent with USEPA's 2015 SSM SIP 09:24:04
16 call, including the factors identified in the 09:24:11
17 AG's question. 09:24:12

18 We believe it is worth noting for the 09:24:13
19 record that USEPA clarified in that same preamble 09:24:15
20 that numerical limitations are not required at 09:24:18
21 all times, stating that, quote, EPA has not taken 09:24:22
22 the position and sources will be subject to SIP 09:24:25
23 emission limitations that are set at the same 09:24:28
24 numerical level at all times or that are 09:24:31

1 expressed as numerical limitations, end quote. 09:24:35

2 MR. JAMES: Thank you. And then number 09:24:39

3 five, why does Rain Carbon believe that adopting 09:24:43

4 the proposed amendment, 35 Illinois 09:24:47

5 Administrative Code, Section 212.124(e) is 09:24:49

6 preferable to pursuing an adjusted opacity 09:24:53

7 standard pursuant to Section 212.126? 09:24:57

8 MR. HIGGINS: Bryan Higgins, Rain Carbon. 09:25:02

9 Section 212.126 does not apply to Rain Carbon's 09:25:04

10 facility. Section 212.126 governs adjusted and 09:25:08

11 -- adjusted and visible -- adjusted visible 09:25:13

12 emission standards for emission sources subject 09:25:15

13 to Sections 212.201, 212.202, 212.203, or 09:25:17

14 212.204. 09:25:17

15 Those sections apply only to fuel 09:25:27

16 combustion sources. The facility operates kilns 09:25:31

17 that are process emission units which are not 09:25:33

18 fuel combustion emission units. 09:25:36

19 MR. JAMES: Thank you. Number six, Rain 09:25:41

20 Carbon asserts that its proposed amendments, 09:25:43

21 quote, are narrowly tailored and provide 09:25:45

22 alternative emissions limitations for particulate 09:25:48

23 matter during startup, malfunction, or breakdown. 09:25:51

24 Rain Carbon notes that to estimate the 09:25:53

1 impact of alternative emissions limitations on 09:25:54
2 particulate matter, NAAQS, the company conducted 09:25:58
3 an engineering test during startup conditions. 09:26:00
4 is it appropriate to draw our conclusion 09:26:03
5 about PM emissions during malfunction or 09:26:04
6 breakdown events based on modeling that relied on 09:26:07
7 data gathered during start-up? 09:26:09
8 MR. HIGGINS: Yes. Bryan Higgins, Rain 09:26:14
9 Carbon. Yes, it is appropriate to model 09:26:16
10 malfunction breakdown emissions based on PM data 09:26:18
11 collected during start-up conditions. 09:26:20
12 The common denominator during startup, 09:26:22
13 malfunction and breakdown is that the ambient 09:26:24
14 temperature to the pyroscrubber is below 1800 09:26:27
15 degrees Fahrenheit which limits the ability of 09:26:30
16 the affected kiln to comply with the applicable 09:26:33
17 PM process weight emission limit. 09:26:33
18 In fact, the use of emissions data during 09:26:39
19 startup to model malfunction, breakdown 09:26:41
20 conditions is inherently conservative. This is 09:26:43
21 largely because of, one, startup events generally 09:26:46
22 last longer than malfunction breakdown events. 09:26:49
23 Two, during the initial hours of startup 09:26:52
24 the inlet temperature to the pyroscrubber is 09:26:55

1 lower than the temperature typically experienced 09:26:58
2 during a malfunction breakdown, meaning that 09:27:00
3 startup events have greater PM emissions. 09:27:03

4 And three, during malfunction, breakdown 09:27:07
5 events the facility stops feed to the kiln as 09:27:09
6 compared to startup conditions where feed is 09:27:12
7 increased, helping to minimize the generation of 09:27:14
8 PM emissions. 09:27:17

9 This is further explained on pages 14 and 09:27:20
10 15 of Rain Carbon's Statement of Reasons. 09:27:22

11 MR. JAMES: Thank you. And number seven, 09:27:25
12 Rain Carbon describes conducting its engineering 09:27:28
13 test during the startup of kiln one. Rain Carbon 09:27:30
14 assumes that, quote, due to similar design 09:27:35
15 operations, kiln two would have similar results 09:27:36
16 to kiln one if it were subjected to the same 09:27:39
17 engineering test. 09:27:41

18 Are there any differences between kiln 09:27:42
19 one and kiln two which could call into question 09:27:43
20 the conclusion that similar emission results 09:27:47
21 during startup would be expected between both 09:27:49
22 kilns? 09:27:52

23 MR. GARES: Ross Gares, Rain Carbon. No, 09:27:53
24 they are not. Kiln one and kiln two are nearly 09:27:54

1	identical in design. The model impact from kiln	09:27:59
2	one and two differ because of the different	09:28:02
3	geographic location of the stacks from the	09:28:05
4	pyroscrubber servicing each kiln.	09:28:08
5	MR. JAMES: Thank you. That's all.	09:28:14
6	HEARING OFFICER: Thank you. Okay. Are	09:28:16
7	there any other questions from any other	09:28:18
8	participants? Okay. Seeing none, we will next	09:28:19
9	go to the Board's questions.	09:28:23
10	CROSS EXAMINATION BY	09:28:23
11	MR. RAO:	09:28:23
12	MR. RAO: Okay. Like the AG, we had	09:28:25
13	pre-filed questions so I'll just read off the	09:28:30
14	questions, starting with -- there's a general	09:28:33
15	question that we had pre-filed that applies to	09:28:38
16	all proponents. It's changes to the rule	09:28:43
17	language.	09:28:45
18	And we'd like you to get back to us in	09:28:47
19	your comments if those changes are acceptable.	09:28:50
20	We went to Rain Carbon. Mr. Gares, this is a	09:28:55
21	question for you on pre-filed questions.	09:28:59
22	On page one you note that you advised all	09:29:03
23	Rain Carbon U.S. facilities, including the one in	09:29:07
24	Illinois, on startup and operation of coke	09:29:09

1	calciners and associated equipment.	09:29:14
2	2A, how many calcining facilities does	09:29:20
3	Rain Carbon operate in the U.S. and where are	09:29:20
4	they located?	09:29:23
5	MR. GARES: Ross Gares, Rain Carbon. We	09:29:23
6	have four calcining plants in Louisiana. We have	09:29:28
7	another calcining plant in Mississippi, and of	09:29:33
8	course the one we're discussing in Robinson,	09:29:37
9	Illinois.	09:29:37
10	MR. RAO: Are any of Rain Carbon's	09:29:42
11	facilities located in other states covered by	09:29:44
12	USEPA's 2015 SIP call?	09:29:47
13	MR. GARES: My understanding -- Ross	09:29:50
14	Gares, Rain Carbon. Sorry. My understanding is	09:29:52
15	that most states are covered by 2015's SIP call.	09:29:55
16	MR. RAO: If so, can you comment how	09:30:01
17	those facilities are addressing SSM SIP call	09:30:03
18	compliance?	09:30:08
19	MR. GARES: Ross Gares, Rain Carbon. At	09:30:09
20	this time Rain Carbon has not taken any action at	09:30:12
21	these facilities to address any changes in state	09:30:14
22	rules governing startup, shutdown, or	09:30:17
23	malfunction.	09:30:21
24	MR. RAO: How is the state of Louisiana	09:30:22

1	implementing 2015 SIP call with respect to your	09:30:27
2	facilities, or are you aware of that?	09:30:30
3	MR. GARES: We haven't -- Ross Gares,	09:30:43
4	Rain Carbon. We haven't looked into it so	09:30:44
5	post-hearing conference --	09:30:46
6	MR. LORING: Post-hearing comments.	09:30:49
7	MR. GARES: Comments.	09:30:49
8	MR. RAO: Okay.	09:30:49
9	MR. LORING: We'll provide.	09:30:50
10	MR. RAO: All right. Thank you.	09:30:51
11	Question three. On pages two and three you state	09:30:53
12	that the facility will often be forced to shut	09:30:57
13	down and restart the kilns during malfunction	09:31:00
14	events.	09:31:03
15	Can you describe typical malfunction or	09:31:03
16	breakdown events encountered at the Robinson	09:31:06
17	facility?	09:31:06
18	MR. GARES: Ross Gares, Rain Carbon.	09:31:10
19	There's no such thing as a typical malfunction or	09:31:12
20	breakdown. A malfunction or breakdown could be	09:31:15
21	the result of a mechanical failure, an electrical	09:31:17
22	failure, a refractory failure of our process	09:31:21
23	equipment.	09:31:24
24	Another form of malfunction could be	09:31:25

1	plugging of material. Petroleum coke is a solid	09:31:27
2	material that can have the tendency to build up,	09:31:31
3	create, and convey transitions of the pour	09:31:34
4	chutes. When that happens it requires some	09:31:36
5	manual intervention by the operations or	09:31:38
6	maintenance staff to clear the plug-up. It is	09:31:41
7	important to note that each kiln is operated as	09:31:44
8	an independent train of equipment.	09:31:48
9	MR. RAO: Can malfunctions also include	09:31:50
10	any problems with the air pollution control if	09:31:55
11	you have any on these kilns, or is it just	09:31:59
12	associated with the operation of the kilns?	09:32:06
13	MR. GARES: It would be associated with	09:32:09
14	the operation of the equipment and the kilns.	09:32:10
15	MR. RAO: Okay.	09:32:12
16	MR. GARES: Our associated equipment for	09:32:14
17	the kiln operations.	09:32:16
18	MR. RAO: The proposed alternative --	09:32:18
19	this is question four. The proposed alternative	09:32:21
20	particulate matter --	09:32:24
21	MR. LORING: Excuse me. I'm sorry for	09:32:26
22	interrupting you just for a second.	09:32:29
23	MR. RAO: Sure.	09:32:29
24	MR. LORING: Part of Ross' response he	09:32:30

1	wanted to convey to you just to read, so I just	09:32:32
2	wanted to make sure we put that into the record.	09:32:35
3	Thank you.	09:32:37
4	MR. GARES: Ross Gares, Rain Carbon.	09:32:38
5	Continuing the answer there; in my pre-filed	09:32:40
6	testimony I stated that without the ability to	09:32:43
7	operate the kilns when the inlet pyroscrubber is	09:32:45
8	below 1800 degrees the facility would often be	09:32:48
9	forced to shut down during a malfunction or	09:32:50
10	breakdown.	09:32:53
11	That is because some malfunctions or	09:32:55
12	breakdowns can be repaired in a reasonable time	09:32:56
13	period which allows the facility to operate in an	09:32:59
14	idle or slow roll mode, meaning that coke is not	09:33:04
15	added to the kiln.	09:33:07
16	This can cause the inlet temperature to	09:33:10
17	the pyroscrubber to drop below 1800 degrees	09:33:12
18	Fahrenheit without the requested rules to allow	09:33:15
19	alternative emissions limits.	09:33:18
20	When the inlet pyroscrubber drops below	09:33:21
21	1800 degrees Fahrenheit the facility would be	09:33:24
22	required to shut down during these malfunctions	09:33:26
23	and breakdowns.	09:33:28
24	I would refer the Board members to pages	09:33:30

1 seven and eight of my pre-filed testimony where I
2 discuss this in further detail.

09:33:32

09:33:35

3 MR. RAO: Thank you. Question four; the
4 proposed alternative particulate matter standard
5 under Section 212.322(d)2 states in part, quote,
6 it shall not be a violation of this part to
7 operate the pyroscrubber servicing kiln one or
8 kiln two below the minimum operating temperature
9 in subsection (d)(1) during this time, unquote.

09:33:38

09:33:44

09:33:49

09:33:55

09:33:58

09:34:03

09:34:05

10 Please clarify if Rain Carbon is required
11 by any provisions in part 212 to operate the
12 pyroscrubber servicing kiln one or kiln two to
13 operate at 1800 degrees Fahrenheit.

09:34:10

09:34:13

09:34:18

09:34:22

14 If not, please explain the proposed
15 intent.

09:34:25

09:34:25

16 MR. GARES: Rain Carbon is required to
17 demonstrate compliance with part 212,
18 specifically PM emissions for process emission
19 units under Section 212.322.

09:34:30

09:34:33

09:34:35

09:34:39

20 During periods when the inlet to the
21 pyroscrubber is below 1800 degrees Fahrenheit the
22 facility cannot demonstrate continuous compliance
23 with the PM emissions limits as determined under
24 Section 212.322.

09:34:43

09:34:46

09:34:49

09:34:53

09:34:56

1	Stated differently, the facility is	09:35:01
2	effectively required to maintain a temperature at	09:35:03
3	or above 1800 degrees Fahrenheit at the inlet to	09:35:05
4	the pyroscrubber to ensure that the PM emissions	09:35:09
5	are sufficiently controlled by the pyroscrubber	09:35:12
6	to demonstrate compliance with Section 212.322.	09:35:15
7	In addition, as discussed in Rain	09:35:22
8	Carbon's Statement of Reasons supporting his	09:35:24
9	proposed rulemaking, I would refer the Board	09:35:25
10	members to pages 16 through 20 of the Statement	09:35:29
11	of Reasons, as well as pages nine and 10 of my	09:35:31
12	pre-filed testimony.	09:35:34
13	In 2017 Rain Carbon entered into a	09:35:35
14	settlement agreement with Illinois EPA. That	09:35:40
15	settlement agreement requires, which remains in	09:35:43
16	effect to this day, that the facility maintain an	09:35:47
17	inlet pyroscrubber temperature of 1800 degrees	09:35:48
18	Fahrenheit in order to ensure compliance with the	09:35:51
19	PM emissions limits under part 212, Section 4.2.2	09:35:54
20	FIE of the CAAPP permit explicitly incorporates	09:36:06
21	this requirement to maintain an 1800 degree	09:36:10
22	Fahrenheit inlet scrubber temperature except	09:36:12
23	during startup and malfunction, breakdown	09:36:15
24	conditions.	09:36:18

1 A copy of the CAAPP permit and a copy of
2 the 2017 Illinois EPA settlement agreement was
3 provided to the Board as exhibits to the
4 Statement of Reasons.

09:36:19

09:36:21

09:36:24

09:36:27

5 MR. RAO: Thank you. Question five. On
6 page six you stated the natural gas burners are
7 used to increase the temperature of the kiln and
8 pyroscrubber from ambient to a minimum
9 temperature of 400 degrees Farenheit as measured
10 at the inlet to the pyroscrubber.

09:36:31

09:36:36

09:36:41

09:36:45

09:36:48

09:36:52

11 Please comment on whether high
12 temperature natural gas burners are available
13 that may be used to help increase the temperature
14 of the kiln and pyroscrubber from ambient to a
15 minimum temperature 1800 degree Fahrenheit.

09:36:54

09:36:56

09:36:58

09:37:00

09:37:03

16 If so, discuss the implications of using
17 such high temperature burners in the calcining
18 kilns.

09:37:06

09:37:09

09:37:09

19 MR. GARES: The burners are utilized to
20 reach a minimum temperature of 400 degrees
21 Fahrenheit at the inlet to the pyroscrubber.
22 This is further discussed on page five of my
23 pre-filed testimony.

09:37:15

09:37:16

09:37:19

09:37:22

09:37:25

24 The kiln temperatures achieved by firing

09:37:27

1 the burner before feed is added to the kilns are 09:37:29
2 much higher. Approximately 1100 degrees 09:37:32
3 Fahrenheit on the discharge end of the kiln and 09:37:36
4 approximately 800 degrees Fahrenheit on the feed 09:37:39
5 and inlet chamber of the kiln. It is important 09:37:43
6 for there to be clear understanding of the 09:37:46
7 function of the burners. 09:37:48

8 The burners are not operated and are not 09:37:50
9 designed for the purpose of achieving a minimum 09:37:52
10 pyroscrubber inlet temperature to ensure 09:37:55
11 environmental compliance. 09:37:57

12 The purpose of the burner is to preheat 09:37:59
13 the refractory line kiln and its supporting 09:38:02
14 refractory line equipment. The addition of green 09:38:03
15 coat to the kiln is necessary to achieve the 1800 09:38:06
16 degree Fahrenheit pyroscrubber inlet temperature. 09:38:09

17 That temperature cannot be achieved by 09:38:12
18 burners alone. As discussed on pages 11 and 12 09:38:14
19 of my pre-filed testimony, the facility has 09:38:20
20 already agreed as part of a settlement agreement 09:38:23
21 earlier this year with USEPA to increase each 09:38:26
22 burner's natural gas-firing capacity. 09:38:30

23 That burner upgrade project is currently 09:38:34
24 underway and with an anticipated completion 09:38:36

1 before the end of 2023. The higher capacity 09:38:40
2 burners will not be able to raise temperatures 09:38:43
3 anywhere near sufficient to maintain 1800 degrees 09:38:46
4 Fahrenheit at the pyroscrubber inlet temperature. 09:38:49
5 Therefore, the burner upgrade project will not 09:38:53
6 eliminate the need for the requested alternative 09:38:56
7 emissions limits contained in the Rain Carbon's 09:38:58
8 proposed rule language. 09:39:01

9 MR. RAO: You mentioned the burner 09:39:06
10 upgrade will not help in raising the temperature 09:39:07
11 to 1800 degrees Fahrenheit, but will it reduce 09:39:11
12 the time it takes to reach 1800 degrees 09:39:15
13 Fahrenheit? 09:39:18

14 MR. GARES: I think it would be premature 09:39:20
15 to give you that answer now. 09:39:22

16 MR. RAO: Okay. 09:39:24

17 MR. GARES: We -- we've -- when we 09:39:25
18 complete this project obviously we will learn a 09:39:27
19 lot from it. We believe that the capacity 09:39:31
20 increase will be 20 to 30 percent more capacity 09:39:33
21 on the burner. 09:39:36

22 Whether that comes to actual fruition 09:39:38
23 upon completion of that project and what we get 09:39:40
24 as a result of this project, but it would not -- 09:39:43

1	I don't -- I think -- we want to make sure that	09:39:46
2	we point out to you is we won't get to the 1800	09:39:48
3	degrees --	09:39:48
4	MR. RAO: Okay.	09:39:53
5	MR. GARES: -- that's required of the	09:39:53
6	burner.	09:39:54
7	MR. RAO: Thank you. Question six. We	09:39:56
8	already touched on this and you said you'll get	09:39:58
9	back to us some of the information in that	09:40:02
10	question, so we'll skip that one.	09:40:03
11	Question seven. Mr. Gares, on page 11	09:40:08
12	you reference to a settlement agreement made with	09:40:15
13	USEPA recently. Can you please say if that	09:40:19
14	agreement is in the record? If not, can you	09:40:23
15	please send us a copy of it?	09:40:25
16	MR. GARES: The 2023 Consent Agreement	09:40:28
17	with USEPA was submitted as Exhibit C --	09:40:30
18	MR. RAO: Okay.	09:40:30
19	MR. GARES: -- to Rain Carbon's Statement	09:40:33
20	of Reasons.	09:40:33
21	MR. RAO: Thank you.	09:40:35
22	MR. GARES: Yes.	09:40:36
23	MR. RAO: Question eight. On page 14 you	09:40:38
24	state the proposed particulate matter alternate	09:40:41

1 emission limit provides limited relief during the 09:40:47
2 period of startup when it's not possible to read 09:40:49
3 the pyroscrubber temperature sufficient to 09:40:52
4 control PM, particulate matter, rather than an 09:40:54
5 averaging period for the duration of the startup. 09:40:59
6 Please comment on whether there is a significant 09:41:02
7 difference between the two time periods? 09:41:04
8 MR. GARES: The ability of the facility 09:41:10
9 to demonstrate compliance with the opacity and PM 09:41:12
10 regulations differ. Opacity is generally 09:41:16
11 expected to -- opacity is generally expected to 09:41:19
12 achieve compliance -- with the 30 percent opacity 09:41:24
13 standard by the end of the first hour of startup 09:41:27
14 from ambient temperatures. 09:41:29
15 This was demonstrated during the recent 09:41:32
16 engineering testing in July of this year. While 09:41:34
17 opacity exceeded 50 percent during the periods of 09:41:38
18 the first hour of startup, the averaging period 09:41:44
19 proposed by Rain Carbon's alternative emissions 09:41:44
20 limit is appropriate to demonstrate compliance 09:41:48
21 with the opacity limit because opacity levels are 09:41:51
22 generally highest during the initial period of 09:41:55
23 startup, and rapidly decrease thereafter. 09:41:58
24 An averaging period is appropriately 09:42:02

1 tailored for this type of emissions profile. By 09:42:04
2 contrast, compliance with the PM emission limits 09:42:07
3 may not be achieved until the pyroscrubber inlet 09:42:11
4 temperature reaches 1800 degrees F. It generally 09:42:15
5 can take from 17 to 24 hours after feed is 09:42:19
6 introduced to the kiln to achieve a pyroscrubber 09:42:23
7 inlet temperature of 1800 degrees during a 09:42:26
8 startup, and anywhere from five to seven hours 09:42:28
9 after feed is reintroduced to the kiln to reach 09:42:31
10 that temperature if the kiln was in idle or slow 09:42:35
11 roll state during a malfunction or breakdown 09:42:38
12 event. 09:42:40

13 Thus, while opacity compliance may be 09:42:41
14 achieved within one hour, PM compliance will take 09:42:44
15 substantially longer. 09:42:47

16 As observed during the July engineering 09:42:48
17 test, see table 4-1 of the Technical Support 09:42:50
18 Document, PM emissions were greater than the 09:42:54
19 calculated maximum allowable PM emission rate 09:42:57
20 under Section 212.322 throughout portions of the 09:43:00
21 startup period. 09:43:05

22 Even as temperatures continue to climb 09:43:07
23 from about 700 degrees Fahrenheit through about 09:43:10
24 1400 degrees Fahrenheit, PM emissions rates also 09:43:15

1 fluctuated during this period. Taken together, 09:43:19
2 the engineering test evidences that PM emissions 09:43:22
3 may exceed regulatory limits during any period of 09:43:26
4 time that the inlet temperature to the 09:43:29
5 pyroscrubber is below 1800 degrees Fahrenheit. 09:43:32
6 This includes periods of startup as well 09:43:36
7 as malfunctions and breakdowns that cause 09:43:38
8 temperatures to drop below 1800 degrees 09:43:41
9 Fahrenheit. 09:43:43
10 As a consequence, the averaging period 09:43:44
11 approach utilized for capacity -- excuse me, 09:43:47
12 utilized for opacity -- is not appropriate as an 09:43:52
13 alternative emissions limit for PM due to the 09:43:56
14 longer and more varied scenarios when PM 09:43:59
15 compliance cannot be achieved. 09:44:02
16 MR. RAO: Thank you. I think you 09:44:06
17 answered the second part of the question. So 09:44:07
18 that's all I have for you, Mr. Gares. I have a 09:44:11
19 few questions for Mr. Higgins. 09:44:14
20 (Starting questions directed to Mr. Higgins) 09:44:14
21 MR. RAO: On pages six and seven of your 09:44:18
22 testimony you state that Trinity and USEPA's 09:44:20
23 Significant Impact Levels for assessing the 09:44:25
24 environmental impact of the proposed AELs because 09:44:29

1 of lack of thresholds for evaluating the 09:44:31
2 environmental impact from SMB events. Line A. 09:44:33
3 Please comment on whether this methodology has 09:44:41
4 been previously used in Illinois and other states 09:44:43
5 to evaluate the impact of SMB emissions on 09:44:47
6 attainment or maintenance of NAAQS to USEPA. 09:44:52
7 MR. HIGGINS: If you don't mind, I'll 09:44:56
8 answer B and C all together. 09:44:57
9 MR. RAO: Okay. 09:45:00
10 MR. HIGGINS: Okay. We are not familiar 09:45:02
11 with how or whether other states are modeling 09:45:03
12 impact of proposed startup, malfunction or 09:45:05
13 breakdown rulemakings following U.S. -- yeah. 09:45:07
14 We are not familiar with how or whether 09:45:12
15 other states are modeling the impact of proposed 09:45:14
16 startup, malfunction, or breakdown rulemakings 09:45:16
17 following the USEPA SSM SIP com. 09:45:20
18 Nevertheless, it is important to clarify 09:45:23
19 that the modeling of emissions generated during 09:45:25
20 startup, malfunction and breakdown events are no 09:45:28
21 different than modeling emissions generated 09:45:31
22 during normal operations, except in terms of 09:45:34
23 their frequency and randomness. 09:45:37
24 That is to say that AERMOD, the ambient 09:45:40

1 air quality modeling software, does not 09:45:42
2 differentiate between emissions during normal 09:45:45
3 operations and those during startup, malfunction 09:45:47
4 and breakdown. This is relevant because the use 09:45:50
5 of significant impact levels to assess the impact 09:45:53
6 of a proposed major modification is a 09:45:56
7 well-accepted methodology. 09:45:59
8 its application to assess the impact of 09:46:02
9 additional emissions from operation during 09:46:04
10 startup, malfunction and breakdown is no 09:46:06
11 different as the AERMOD software considers these 09:46:09
12 emissions as if they were generated by a plan 09:46:12
13 modification. 09:46:15
14 That is, the model considered the 09:46:16
15 increase in emissions that would result from 09:46:18
16 operating during startup, malfunction and 09:46:20
17 breakdown as compared to normal or baseline 09:46:23
18 operations. 09:46:26
19 As explained in Section eight of Rain 09:46:28
20 Carbon's Statement of Reasons, specifically pages 09:46:31
21 30 and 31, the use of Sils to demonstrate and 09:46:33
22 honor appearance under Section 110 L of the Clean 09:46:37
23 Air Act is appropriate because the impacts of the 09:46:41
24 model below the Sil are regarded as having a, 09:46:44

1 quote, not meaningful or significant, end quote,
2 impact on air quality.

3 Using the Sil to demonstrate that
4 proposed AELs would have an insignificant impact
5 on air quality also demonstrates that the
6 proposed AELs will not interfere with the PM or
7 ozone max in Illinois.

8 MR. RAO: Thank you. Question 10. On
9 page 1-1 the Technical Support Document states
10 that during the startup test performed on July
11 20th, 2023, the maximum opacity reading was
12 recorded at 50 percent and about 30 percent for
13 more than eight minutes in a 60 minute feed,
14 which is I think named as run number one.

15 The other four test runs did not exceed
16 opacity limit of 30 percent. Based on the
17 opacity testing results, 10(a), what would be the
18 shortest averaging time required to comply with
19 the 30 percent opacity limit?

20 I realize Mr. Gares answered some of
21 these questions about opacity and PM, but --

22 MR. HIGGINS: Sure.

23 MR. RAO: -- if you want to add anything
24 please feel free.

1 MR. HIGGINS: So Rain Carbon believes 09:48:05
2 that the July 20th, 2023 engineering test was a 09:48:06
3 representative startup event at the facility. 09:48:09
4 However, because the facility is not required by 09:48:12
5 rule or by its CAAPP permit to monitor opacity 09:48:15
6 during startup, the July engineering test 09:48:19
7 reflects the only available data of method nine 09:48:21
8 opacity observations during startup. 09:48:24
9 Rain Carbon lacks sufficient data to 09:48:26
10 determine the shortest averaging time required to 09:48:29
11 comply with the 30 percent opacity standard 09:48:31
12 during startup. 09:48:34
13 Part of the reason is that, as noted 09:48:36
14 above, the facility does not routinely conduct 09:48:38
15 method nine observations during startup 09:48:41
16 conditions. 09:48:43
17 In addition, the startup conditions are 09:48:44
18 inherently variable. While the startup on July 09:48:46
19 20th of 2023 may have resulted in a few minutes 09:48:49
20 of opacity exceeding the 30 percent standard, 09:48:52
21 subsequent startups at different time periods 09:48:56
22 under different conditions will produce different 09:48:58
23 results. 09:49:02
24 For example, the first opacity 09:49:03

1 observation on July 20th occurred when the inlet 09:49:04
2 temperature to the pyroscrubber was about 600 09:49:07
3 degrees Fahrenheit. See tables 2-1 and 4-1 of 09:49:10
4 the TSD. A lower temperature, for example, 09:49:15
5 closer to 400 degrees Fahrenheit, is expected to 09:49:18
6 result in higher opacity readings. 09:49:21
7 The proposed averaging period in Rain 09:49:24
8 Carbon's AEL for opacity is intended to 09:49:29
9 accommodate such higher and longer duration of 09:49:31
10 opacity readings. 09:49:32
11 MR. RAO: Does that answer 10(b) or -- 09:49:38
12 MR. HIGGINS: Yes. 09:49:44
13 MR. RAO: Okay. Go on to question 11. 09:49:45
14 On page 3-1 the Technical Support Document notes 09:49:50
15 that the mass VOM emission rates calculated by 09:49:55
16 AirSource during each of the five test runs were 09:49:59
17 significantly below the allowable volatile 09:50:03
18 organic material emission rate of eight pounds 09:50:07
19 per hour under 35 Ill. Admin code 215 -- I think 09:50:11
20 it should be 3-0. 09:50:19
21 I'll have to get that citation. I think 09:50:24
22 the citation that we have applies to question 09:50:26
23 one. So given the test runs conducted by 09:50:29
24 AirSource were procedurally representative of a 09:50:34

1 typical startup, do you believe that the test 09:50:37
2 results support a much shorter averaging time 09:50:41
3 rather than the proposed 24-hour averaging figure 09:50:44
4 for VOM emissions during startups? 09:50:47
5 MR. HIGGINS: Well, the July 20th, 2023 09:50:50
6 engineering test was conducted during a 09:50:54
7 representative startup event. The VOM sampling 09:50:56
8 results serve to demonstrate that VOM emissions 09:51:00
9 are substantially higher during the initial 09:51:03
10 period of startup when the inlet temperature to 09:51:06
11 the pyroscrubber is lowest. 09:51:09
12 Looking at table 3-1 of the Technical 09:51:11
13 Support Document, VOM emissions during run one 09:51:14
14 were over six times greater than emissions during 09:51:17
15 runs where the pyroscrubber inlet temperature was 09:51:22
16 approximately over 300 degrees Fahrenheit hotter. 09:51:24
17 And while run one was below the eight 09:51:28
18 pound per hour regulatory limit, the inlet 09:51:30
19 pyroscrubber temperature during run one was close 09:51:34
20 to 700 degrees Fahrenheit, nearly 300 degrees 09:51:37
21 Fahrenheit hotter than the typical 400 degree 09:51:40
22 Fahrenheit temperature at which green coat is 09:51:44
23 typically introduced. 09:51:47
24 VOM emissions are therefore expected to 09:51:48

1 be significantly higher than 2.41 pounds per hour 09:51:51
2 when the inlet temperature to the pyroscrubber is 09:51:56
3 below 700 degrees Fahrenheit, as is often the 09:51:59
4 case. As a result, the proposed AEL for VOM that 09:52:02
5 allows for averaging VOM emissions during startup 09:52:06
6 remains an appropriate averaging period to 09:52:10
7 accommodate expected high VOM emissions during 09:52:13
8 initial periods of startup. 09:52:16
9 MR. RAO: Thank you. 09:52:19
10 HEARING OFFICER: Okay. 09:52:19
11 MR. RAO: That's all. 09:52:19
12 HEARING OFFICER: I do have one other 09:52:22
13 question. If you could please respond here today 09:52:23
14 or in a public written comment to the Joint 09:52:26
15 Committee on Administrative Rules or JCAR's staff 09:52:31
16 changes to add the questions to the rule text in 09:52:33
17 public comment two. Okay. 09:52:37
18 MR. LORING: Yeah, we will -- we'll 09:52:38
19 respond in our post-hearing comments. 09:52:40
20 HEARING OFFICER: Excellent. Thank you. 09:52:42
21 Are there any other questions from the Board? 09:52:43
22 Okay. Thank you so much. So one second. Okay. 09:52:45
23 Yeah. And there might be more changes as well so 09:53:01
24 we'll submit those and then the hearing officer 09:53:03

1	will adopt those.	09:53:03
2	MR. LORING: Okay. Thank you. Thank	09:53:08
3	you.	09:53:08
4	HEARING OFFICER: Okay. Next we will	09:53:11
5	have David Wall of the Illinois Environmental	09:53:12
6	Regulatory Group. Please step up here. All	09:53:15
7	right. If you're ready would the court reporter	09:53:44
8	please swear in the witness?	09:53:46
9	(Witness sworn)	09:53:46
10	DAVID WALL,	09:53:46
11	being first duly sworn on oath, was examined and	09:53:46
12	testified as follows:	09:53:46
13	HEARING OFFICER: Okay. As mentioned	09:53:53
14	earlier, the witness' testimony is entered into	09:53:55
15	the record as if read and it's entered as Hearing	09:53:58
16	Exhibit Number Three.	09:54:02
17	We will again proceed with questions	09:54:03
18	first from the Attorney General's Office, if you	09:54:05
19	want to step up.	09:54:07
20	DIRECT EXAMINATION BY	09:54:07
21	MR. JAMES:	09:54:18
22	MR. JAMES: Jason James, Illinois	09:54:19
23	Attorney General's Office. I'm going to go	09:54:20
24	through my pre-filed questions like I did with	09:54:24

1 Rain Carbon and maybe have some follow-ups 09:54:27
2 depending on your responses. 09:54:30
3 IERG states that its proposed amendment, 09:54:33
4 quote, has no potential to adversely impact air 09:54:35
5 quality. In support, IERG states that, quote, 09:54:37
6 there has never been a carbon monoxide 09:54:41
7 non-attainment area in the state of Illinois 09:54:45
8 under the National Ambient Air Quality Standards 09:54:45
9 Program, also known as NAAQS. 09:54:49
10 However, IERG proposes to implement 09:54:50
11 standards based on the National Emission 09:54:53
12 Standards for hazardous air pollutants known as 09:54:55
13 NESHAP, rather than the NAAQS program. 09:54:59
14 The federal boiler NESHAP is intended to 09:55:01
15 regulate emissions of hazardous air pollutants 09:55:04
16 known as HAPs. HAPs are types of pollutants that 09:55:05
17 are known or suspected to cause cancer or other 09:55:08
18 serious health effects, often in very low 09:55:10
19 quantities. 09:55:13
20 So sub question A; how does Illinois' 09:55:14
21 attainment status for carbon monoxide under the 09:55:17
22 NAAQS program relate to HAP emissions from 09:55:21
23 boilers and compliance with the federal boiler 09:55:23
24 NSEHAP? 09:55:23

1 MR. HIGGINS: Illinois' attainment status 09:55:27
2 for CO does not directly relate to HAP emissions 09:55:30
3 for boilers. Rather, it demonstrates the current 09:55:33
4 levels of CO emissions which includes SMB 09:55:35
5 emissions from heaters and boilers within the 09:55:38
6 state are not and have not caused adverse ambient 09:55:40
7 air quality impacts of CO in Illinois. 09:55:43
8 This further demonstrates that IERG's 09:55:46
9 proposal, which will not increase CO emissions 09:55:49
10 from regulated sources, will not cause or 09:55:51
11 contribute to any adverse ambient impacts. 09:55:53
12 MR. JAMES: But in IERG's proposal the 09:55:58
13 alternative emissions location is based on the 09:56:00
14 NESHAP regulation, is that right? 09:56:03
15 MR. HIGGINS: So IERG's proposal 09:56:05
16 references the boiler map of NESHAP because it's 09:56:07
17 an established USEPA approved program that 09:56:11
18 regulates SSM similar to SMB emissions from 09:56:14
19 combustion sources. 09:56:21
20 And as we can explain, I believe, when we 09:56:22
21 get to question 2(b), it's appropriate to look at 09:56:24
22 that as an established regulatory format for CO 09:56:28
23 emissions as that boiler map uses CO as the 09:56:32
24 surrogate pollutant for HAP under that rule. 09:56:35

1 MR. JAMES: Okay. I'll go ahead and move 09:56:39
2 onto B then. The federal boiler NESHAP is not 09:56:40
3 primarily intended to limit carbon monoxide 09:56:44
4 emissions, rather it uses carbon monoxide as a 09:56:46
5 surrogate for limits on organic hazardous air 09:56:49
6 pollutants. 09:56:49

7 Why does the federal boiler NESHAP 09:56:55
8 operate in this way? How does using carbon 09:56:57
9 monoxide as a surrogate for organic HAPs relate 09:57:00
10 to IERG's proposal? And like you said, we sort 09:57:03
11 of already addressed this, but please go ahead 09:57:05
12 and add anything else. 09:57:08

13 MR. HIGGINS: The USEPA included CO as a 09:57:08
14 surrogate for organic HAP emissions in the boiler 09:57:12
15 map regulation as the pollutants generally trend 09:57:14
16 together from combustion sources as both are 09:57:16
17 products of incomplete combustion and are 09:57:19
18 impacted by similar operational parameters. 09:57:21

19 It is also simpler and more economical to 09:57:25
20 set emission limits, work practice standards, or 09:57:27
21 monitor emissions from a single pollutant 09:57:30
22 compared to several, which is why USEPA often 09:57:30
23 utilizes surrogate pollutants in rulemaking. 09:57:36

24 Further, the feasible control 09:57:38

1 technologies are the same for both pollutants. 09:57:40
2 That is to say, good combustion practices. IERG 09:57:43
3 is proposing to reference the SMS language from 09:57:48
4 the boiler map as it is an established regulatory 09:57:51
5 compliance option, in this case a work practice, 09:57:53
6 established by USEPA with respect to SSM 09:57:56
7 emissions from combustion sources. 09:58:00

8 While NESHAP regulates organic HAP 09:58:02
9 emissions it sets CO as a surrogate pollutant. 09:58:04
10 As the formation of the pollutants is impacted by 09:58:04
11 the same operating characteristics and the 09:58:10
12 feasible control technologies and limitations of 09:58:12
13 their effectiveness during SSM are the same, it 09:58:15
14 is appropriate to follow the same requirements 09:58:19
15 minimizing CO emissions as for organic HAP 09:58:21
16 emissions from combustion sources. 09:58:25

17 MR. JAMES: Thank you. Question C; could 09:58:26
18 IERG's proposed regulations have any adverse 09:58:29
19 impact on human health or the environment due to 09:58:31
20 emissions of HAPs? 09:58:34

21 MR. HIGGINS: No. IERG's proposal does 09:58:35
22 not address or change any requirements regarding 09:58:38
23 HAPs. Rather, IERG's proposal would use the same 09:58:40
24 work practice requirements from the boiler map 09:58:43

1 which does regulate HAPs but with C/O as a 09:58:45
2 surrogate to regulate CO emissions. The proposal 09:58:49
3 would not have any adverse impact on human health 09:58:52
4 or the environment as the emissions from 09:58:55
5 regulated sources will not increase under this 09:58:58
6 proposal. 09:58:59

7 MR. JAMES: Thank you. Question D; have 09:59:00
8 boilers in Illinois emitted organic HAPs in 09:59:03
9 violation of state or federal environmental laws 09:59:05
10 or regulations? 09:59:07

11 MR. HIGGINS: Emissions of HAP from 09:59:09
12 boilers within Illinois are not specifically 09:59:10
13 relevant to IERG's proposal. IERG does not have 09:59:13
14 knowledge of the compliance history of all 09:59:16
15 boilers within the state given the large number 09:59:17
16 of boilers operating within the state. 09:59:19

17 While not relevant to IERG's proposal, 09:59:22
18 USEPA has identified a number of organic HAPs for 09:59:24
19 which CO serves as a regulated surrogate under 09:59:27
20 the boiler map. 09:59:27

21 These emissions can also vary 09:59:30
22 significantly by type and magnitude depending on 09:59:32
23 the type of fuel combusted. These emissions 09:59:35
24 could include, however, acetaldehyde, benzene, 09:59:38

1 chloroform, formaldehyde, hexane, and toluene as 09:59:45
2 well as many others. 09:59:47
3 Again, however, these organic HAPs are 09:59:48
4 not relevant here. IERG is proposing an 09:59:50
5 alternative emission limit only as to the CO 09:59:52
6 standard in Section 216.121. 09:59:55
7 MR. JAMES: Thanks. And that answer also 09:59:59
8 addresses the question in 1E, is that right, that 10:00:02
9 asks for types of HAPs? 10:00:08
10 MR. HIGGINS: Yes. 10:00:09
11 MR. JAMES: Okay. Question number two; 10:00:10
12 at hearing for the R23-18 rulemaking, Illinois 10:00:14
13 EPA testified that the US Environmental 10:00:19
14 Protection Agency is now requiring SIP 10:00:21
15 submittals, and that's State Implementation Plan 10:00:25
16 submittals, to include impacts on environmental 10:00:28
17 justice or EJ areas and EJ communities. 10:00:30
18 Neither IERG's proposal nor testimony in 10:00:35
19 this R23-18(a) docket mentioned environmental 10:00:38
20 justice. At the second hearing in R23-18, IERG 10:00:42
21 stated that, quote, IERG's proposed provisions 10:00:48
22 will not result in any adverse impacts on EJ 10:00:50
23 areas or EJ communities. 10:00:53
24 IERG's post-hearing responses stated that 10:00:56

1 based on IEPA's EJ Start tool, quote, at least 10:00:57
2 one IERG member that could be impacted by IERG's 10:01:02
3 alternative proposal is located in an 10:01:05
4 environmental justice area. IERG intends its 10:01:08
5 proposal to be submitted to USEPA as a SIP 10:01:12
6 revision upon being adopted. 10:01:16

7 Is it your understanding that USEPA will 10:01:17
8 require discussion of EJ impacts to be included 10:01:20
9 in this SIP submittal? What's your understanding 10:01:23
10 of the kind of information about EJ impacts USEPA 10:01:26
11 requires? 10:01:30

12 Does the current rulemaking record in 10:01:30
13 R23-18(a) include sufficient information about EJ 10:01:33
14 impacts to support a SIP submittal? 10:01:37

15 MR. HIGGINS: It is IERG's understanding 10:01:40
16 that pursuant to a federal executive order, 10:01:41
17 federal agencies are directed to identify and 10:01:44
18 address EJ impacts of their actions to the 10:01:47
19 greatest extent practicable and permitted by the 10:01:52
20 law. 10:01:53

21 However, it is also IERG's understanding 10:01:53
22 that neither the Clean Air Act nor the 10:01:55
23 implementing regulations for SIP submittals 10:01:58
24 requires or prohibits an EJ evaluation. 10:02:01

1 Regardless, as IERG has previously 10:02:05
2 stated, the proposal will not result in any 10:02:06
3 increase in emissions from the regulated 10:02:09
4 combustion sources. Boilers and heaters across 10:02:12
5 the state have always had elevated emissions 10:02:15
6 during SMB events. 10:02:18

7 Under IERG's proposal regulated sources 10:02:20
8 will continue to operate as they always have with 10:02:20
9 no increase in emissions. With no increased 10:02:23
10 emissions there is no potential for adverse 10:02:26
11 impact to EJ areas as a result of this proposal. 10:02:28

12 Therefore, it is IERG's position that its 10:02:31
13 proposal include sufficient information needed to 10:02:33
14 support SIP submittal. 10:02:35

15 MR. JAMES: And when you say no increase, 10:02:37
16 is that -- that's relative to the regulations 10:02:39
17 that existed before the rule was adopted in 10:02:41
18 R23-18? 10:02:45

19 MR. HIGGINS: That's relative to how the 10:02:47
20 boilers have always operated and are likely to 10:02:49
21 continue to operate. 10:02:52

22 MR. JAMES: How would it change relative 10:02:55
23 to the rules as they currently exist which 10:02:56
24 include the regs that the Board adopted in 10:02:59

1 R23-18?

10:03:01

2 MR. HIGGINS: I don't believe they will
3 change, as I previously testified. It's not
4 economically or technically feasible to control
5 emissions during SMB events.

10:03:03

10:03:03

10:03:06

10:03:09

6 MR. JAMES: Okay. 2(b). What impact
7 will IERG's proposal in R23-18(a) have on EJ
8 communities and EJ areas relative to Illinois'
9 current air regulations? And then provide the
10 locations of these communities and areas that
11 would be affected.

10:03:12

10:03:15

10:03:21

10:03:24

10:03:27

10:03:28

12 MR. HIGGINS: There are a number of
13 currently identified EJ areas within Illinois as
14 IEPA's EJ Start mapping tool demonstrates.

10:03:30

10:03:31

10:03:35

15 Given the number of regulated combustion
16 sources within the state, there are numerous
17 boilers and heaters operating within a number of
18 these EJ areas within the state.

10:03:37

10:03:39

10:03:41

10:03:43

19 However, as noted previously, the IERG
20 proposal will have no impact on emissions and
21 therefore no adverse impact to any EJ area in the
22 state.

10:03:46

10:03:49

10:03:51

10:03:54

23 MR. JAMES: Thanks. Question three. The
24 regulatory text of IERG's proposal incorporates

10:03:56

10:04:00

1 by reference 40 C.F.R. 63, Subpart DDDDD, that's 10:04:02
2 five D's, (2022). Last year USEPA revised 10:04:10
3 Subpart DDDDD, five D's. The 2022 annual edition 10:04:18
4 of Title 40 of the Code of Federal Regulations 10:04:23
5 was published on July 1st, 2022. Therefore, the 10:04:26
6 2022 annual editions, Title 40, does not contain 10:04:30
7 the most recent revisions to Subpart DDDDD. 10:04:34
8 The Title 40 in the e-C.F.R. -- that's 10:04:34
9 electronic C.F.R. -- is regularly updated and 10:04:34
10 does contain the most recent version of Subpart 10:04:44
11 DDDDD. Does IERG's proposed regulatory language 10:04:47
12 refer to the 2022 annual edition of the C.F.R.? 10:04:51
13 If not, what does IERG's proposed 10:04:55
14 regulatory language refer to? 10:04:57
15 MR. HIGGINS: IERG's proposal refers to 10:04:59
16 the current version of the boiler map as of 10:05:00
17 today, last amended October 6th, 2022. 10:05:03
18 MR. JAMES: And is that reflected in the 10:05:08
19 proposed regulatory text that's submitted by 10:05:10
20 IERG? 10:05:13
21 MR. HIGGINS: I believe that was the 10:05:14
22 intent of our proposal, and we can clarify that 10:05:14
23 as needed. 10:05:17
24 MR. JAMES: Okay. And that sort of goes 10:05:18

1 to my question in 3B. Does IERG's most recent -- 10:05:19
2 and then onto 3C -- should it directly cite the 10:05:23
3 most recently revised version to avoid ambiguity, 10:05:27
4 or would you propose some other form of citing 10:05:31
5 this? 10:05:34

6 MR. HIGGINS: IERG has referenced the 10:05:34
7 boiler map because it contains approved USEPA 10:05:35
8 work practices for minimizing emissions, 10:05:37
9 including organic HAPs, with CO as a surrogate 10:05:39
10 for combustion sources during SMS events. 10:05:43

11 IERG is amenable to referencing the most 10:05:44
12 recently revised version of the boiler map as 10:05:48
13 amended October 6th, 2022. 10:05:50

14 MR. JAMES: Okay. Thank you. That's all 10:05:52
15 I have. 10:05:54

16 HEARING OFFICER: Okay. Are there any 10:05:55
17 other questions from any other participants? 10:05:57
18 Seeing none -- 10:06:00

19 MR. RAO: I'd just like to note for the 10:06:00
20 record, the Board had questions -- previously 10:06:03
21 asked questions -- of Mr. Wall, and it's still 10:06:05
22 part of the record. So your answers to those 10:06:10
23 questions will be used in our evaluation. 10:06:15

24 HEARING OFFICER: Yes. Do any Board 10:06:19

1	members have any additional questions? Okay.	10:06:21
2	Again, I'm just going to reiterate, if you could	10:06:23
3	please respond here or in a written public	10:06:26
4	comment to JCAR's staff changes to the questions	10:06:29
5	in the rule text in public comment number two.	10:06:30
6	Awesome. Thank you.	10:06:33
7	All right. So we will move on to the	10:06:36
8	next witness which is John Derek Reese with the	10:06:37
9	American Petroleum Institute. All right. Would	10:06:41
10	the court reporter please swear in the witness?	10:07:22
11	(Witness sworn)	10:07:22
12	JOHN REESE,	10:07:22
13	being first duly sworn on oath, was examined and	10:07:22
14	testified as follows:	10:07:22
15	HEARING OFFICER: Okay. As mentioned	10:07:30
16	earlier, the witness' testimony is entered into	10:07:33
17	the record as if read and entered as hearing	10:07:35
18	Exhibit Number Four. So we will then proceed	10:07:38
19	with questions from the Attorney General's Office	10:07:44
20	first.	10:07:46
21	And if you can please state your name	10:07:54
22	first for the court reporter. Thank you.	10:07:56
23	DIRECT EXAMINATION BY	10:07:56
24	MR. ARMSTRONG:	10:07:56

1 MR. ARMSTRONG: Andrew Armstrong for the 10:07:58
2 Illinois Attorney General's Office. Good 10:07:59
3 morning. 10:08:09
4 MR. REESE: Good morning. 10:08:09
5 MR. ARMSTRONG: In its Statement of 10:08:10
6 Reasons, API asserts that one of the refineries 10:08:11
7 conducted screening modeling of impacts using 10:08:13
8 continuous emission monitoring system data from 10:08:16
9 recent startup events to conservative estimate of 10:08:20
10 ambient impacts during these events. 10:08:25
11 The incremental emission impact during 10:08:29
12 startups were less than three percent and six 10:08:32
13 percent of the one hour and eight hour standards 10:08:35
14 respectively. So that's taken from API's 10:08:38
15 statement of Reasons at page 40. 10:08:42
16 Question number one: Does this assertion 10:08:45
17 refer to monitoring data summarized in the 10:08:48
18 Technical Support Document accompanying Marathon 10:08:52
19 Petroleum Company, LLC's Petition For an Adjusted 10:08:55
20 Standard at page TSD-14? 10:09:00
21 MR. REESE: John Derek Reese, American 10:09:09
22 Petroleum Institute. This passage instead refers 10:09:16
23 to the modeling conducted by ExxonMobil and 10:09:21
24 described in their petition for the adjusted 10:09:24

1 standard.

10:09:24

2 MR. ARMSTRONG: Oh. Okay. Thank you.

10:09:27

3 If I could though ask about the Marathon data.

10:09:30

4 Why was Marathon required to operate the two

10:09:36

5 monitoring stations from calendar years 2017

10:09:40

6 through 2019?

10:09:43

7 When were the monitoring stations first

10:09:45

8 installed, and have the monitoring stations been

10:09:47

9 operated at any time since the end of the 2019

10:09:50

10 calendar year?

10:09:52

11 MR. REESE: John Derek Reese, American

10:09:55

12 Petroleum Institute. Marathon was required to

10:09:57

13 operate two monitoring stations per the

10:10:02

14 conditions of the consent order effective May

10:10:03

15 15th, 2015, between Marathon and the State in

10:10:06

16 People versus Marathon Petroleum Company,

10:10:10

17 Crawford County, as a result of the resolution of

10:10:12

18 the alleged violations which were mostly

10:10:15

19 permitting vapor pressure and VOM-related

10:10:18

20 allegations, which Marathon did not admit to.

10:10:21

21 Marathon agreed to conduct a supplemental

10:10:23

22 environmental project SEP. The purpose of the

10:10:26

23 SEP was to undertake an ambient air modeling and

10:10:27

24 monitoring project at and around the Robinson

10:10:30

1 refinery to evaluate emissions from the refinery 10:10:33
2 for baseline purposes and to compare them, then 10:10:36
3 recently revised as of two NAAQS. The project 10:10:39
4 included installation of two ambient air monitors 10:10:45
5 and a meteorological station. The project 10:10:45
6 operated from January 1st of 2017 through 10:10:49
7 December 31st, 2020. 10:10:52
8 The monitoring stations monitor the 10:10:54
9 following emissions; carbon monoxide, CO; 10:10:57
10 Nitrogen dioxide, NO2; total reduced sulphur, 10:11:00
11 TRSEM 10, and VOC. 10:11:05
12 MR. ARMSTRONG: Thank you. That covered 10:11:09
13 number three so we'll move on to number four. 10:11:10
14 Please describe the location of the two 10:11:14
15 monitoring stations relative to both (a) the 10:11:15
16 Marathon refinery's fence line, and (b) the 10:11:18
17 Marathon refinery's fluid catalytic cracking 10:11:21
18 unit, FCCU, including both distance and 10:11:27
19 direction. 10:11:30
20 MR. REESE: John Derek Reese, American 10:11:31
21 Petroleum Institute. A little wordy as I give 10:11:34
22 you the details, but you have it. Monitoring 10:11:37
23 station number one is situated on property owned 10:11:39
24 and maintained by Marathon and is located 10:11:42

1 approximately 670 feet north of the northeastern 10:11:44
2 Section of the refinery fence line and 10:11:49
3 approximately 95 feet southeast of a refinery 10:11:51
4 service road. Monitoring station number one is 10:11:54
5 approximately 2000 feet north of the FCCU. 10:11:56
6 Monitoring station number two is situated 10:12:01
7 on property owned and maintained by Marathon and 10:12:03
8 is approximately -- is located approximately -- 10:12:06
9 115 feet west of the western edge of Southeast 10:12:09
10 Street, 80 feet northeast of the nearest edge of 10:12:12
11 East Orlando Drive, and 100 feet west of the 10:12:15
12 southwestern fence line. 10:12:22
13 Monitoring station number two is located 10:12:22
14 at approximately 1900 feet southwest of the FCCU. 10:12:24
15 MR. ARMSTRONG: Thank you. Question 10:12:30
16 number five. Please state the date and time of 10:12:32
17 each of the five FCCU startups at the Marathon 10:12:34
18 refinery during calendar years 2017 through 2019 10:12:39
19 as described in Marathon's Technical Support 10:12:43
20 Document at TSD-14. 10:12:46
21 MR. MESSINA: Alec Messina on behalf of 10:12:51
22 API. And again there is a chart that he's going 10:12:52
23 to read off but it may be easier to look at the 10:12:55
24 chart. 10:12:58

1	MR. REESE: John Derek Reese, American	10:12:59
2	Petroleum Institute. I'll go in order. So the	10:13:02
3	first startup begins January 7th, 2018 at 01:45.	10:13:05
4	Startup is completed January 8th, 2018 at 07:30.	10:13:10
5	The second startup is February 17th, 2019 at	10:13:17
6	23:00 hours. Startup is complete February 18th,	10:13:21
7	2019, 16:45.	10:13:27
8	The third startup is April 4th, 2019,	10:13:33
9	17:30. It ends April 5th, 2019 at 04:30. The	10:13:36
10	fourth startup is June 6th, 2019, 13:30. It's	10:13:45
11	complete June 7th, 2019 at 00:30. The last one	10:13:51
12	is December 8th, 2019 at 15:30. It's complete at	10:13:58
13	December 9th, 2019 at 12:00.	10:14:04
14	MR. ARMSTRONG: Thank you. And I know we	10:14:11
15	won't be reading this into the record today, but	10:14:13
16	if API could please provide all monitoring data	10:14:15
17	available from the two monitoring stations from	10:14:20
18	the dates of those five FCCU startups at the	10:14:23
19	Marathon refinery that were just summarized in	10:14:27
20	post-hearing comments, we would appreciate that.	10:14:32
21	MR. REESE: John Derek Reese, American	10:14:35
22	Petroleum Institute. We will do that.	10:14:39
23	MR. ARMSTRONG: That's all for us. Thank	10:14:40
24	you.	10:14:40

1	HEARING OFFICER: Thank you. All right.	10:14:42
2	Are there any other questions from any other	10:14:42
3	participants? Okay. Seeing none, we will go to	10:14:45
4	Board questions.	10:14:50
5	MR. RAO: Okay.	10:14:50
6	CROSS EXAMINATION BY	10:14:50
7	MR. RAO:	10:14:50
8	MR. RAO: Good morning, Mr. Reese.	10:14:53
9	MR. REESE: Good morning.	10:14:54
10	MR. RAO: Let's start with the Board's	10:14:57
11	question number 13. On page one of your	10:14:58
12	testimony you state that your current	10:15:01
13	responsibilities include advocating on	10:15:02
14	environmental and process safety issues that may	10:15:05
15	impact the procedures and/or operations of the	10:15:09
16	refineries in the United States.	10:15:11
17	13(a). Please comment on how many	10:15:13
18	refineries with petroleum catalytic cracking	10:15:16
19	units have been affected by USEPA's 2015 SSM SIP	10:15:21
20	call in states other than Illinois?	10:15:24
21	MR. REESE: John Derek Reese, American	10:15:28
22	Petroleum Institute. There are over 100	10:15:31
23	refineries operating in 31 different states.	10:15:32
24	Each state had distinctive changes that were	10:15:35

1 required by the USEPA's 2015 SSM SIP call. Those 10:15:39
2 changes have been focused primarily on the rule 10:15:44
3 of affirmative defense language. What is unique 10:15:47
4 about Illinois' response is that it eliminated 10:15:50
5 for purposes of safety, compliance and startups, 10:15:53
6 use of a federal emission alternative for 10:15:55
7 catalytic cracking unit startups which was 10:15:58
8 specifically written to address safety concerns. 10:16:00
9 MR. RAO: Are you -- 13B. Are you aware 10:16:04
10 of how the affected refineries in other states 10:16:08
11 are addressing the SIP call requirements? 10:16:11
12 MR. REESE: John Derek Reese, American 10:16:13
13 Petroleum Institute. I refer the Board back to 10:16:17
14 the public testimony of David Wall on behalf of 10:16:19
15 IERG in the original rulemaking R200-23-018. 10:16:20
16 In that testimony he stated that other 10:16:28
17 states either do not have CO standards, FCCUs, or 10:16:29
18 they exempt units subject to federal regulations. 10:16:34
19 Examples from Indiana and California were 10:16:37
20 provided with links. 10:16:39
21 The 200 part per million CO limit in 10:16:41
22 Section 216.361 is unique to Illinois without the 10:16:45
23 proposed AEL. As such, refineries in other 10:16:50
24 states are able to utilize the federal 10:16:53

1 alternatives for startups. Again, Illinois is 10:16:56
2 the outlier on their approach with respect to 10:16:58
3 process safety. But not including the federal 10:17:01
4 alternative as part of their SIP changes it's 10:17:02
5 important to note that U.S. refineries have been 10:17:05
6 implementing the federal alternatives 10:17:08
7 successfully since 2019. 10:17:08

8 MR. RAO: Does that answer 13(c) or do 10:17:14
9 you have any more to add to your response? 10:17:17

10 MR. REESE: John Derek Reese. Just a 10:17:22
11 couple more sentences. So all U.S. refineries 10:17:23
12 and catalytic cracking units are subject to Part 10:17:28
13 63 NESHAP standards. 10:17:30

14 These standards have been applicable 10:17:30
15 since the promulgation of the rule in 2016. The 10:17:33
16 final compliance state was 2019. The alternative 10:17:36
17 standard prescribed in refinery Section rules are 10:17:37
18 applicable requirements in all states. 10:17:41

19 MR. RAO: Question 14. Please clarify 10:17:42
20 whether new or existing petroleum catalytic 10:17:45
21 cracking units are generally subject to the 10:17:50
22 NESHAP standards for petroleum refineries, or 10:17:52
23 would they have to comply with them only if the 10:17:56
24 proposed alternative standards are adopted by the 10:17:59

1 Board?

10:18:01

2 MR. REESE: All U.S. refineries with

10:18:03

3 catalytic cracking units are subject to the part

10:18:07

4 63 NESHAP standards. These standards have been

10:18:08

5 applicable since 2016 promulgation of these

10:18:11

6 standards.

10:18:14

7 The alternative standard prescribed in

10:18:15

8 the refinery section rules are applicable

10:18:16

9 requirements in all states. Illinois, without

10:18:20

10 the proposed alternative emission limit which

10:18:21

11 incorporates these standards, removes the

10:18:24

12 provision for SCC and startup in refineries.

10:18:27

13 While this is unlikely to be the intent,

10:18:29

14 the effect of not having an AEL would essentially

10:18:33

15 mandate the refinery conduct startup operations

10:18:36

16 in an unsafe manner.

10:18:38

17 MR. RAO: Question 15. On page three of

10:18:43

18 your testimony you note that if refractory

10:18:46

19 repairs were made a refractory dry-out period is

10:18:50

20 required and the regenerator temperature must be

10:18:55

21 raised slowly to prevent water from damaging the

10:18:58

22 refractory.

10:19:00

23 15(a). Please comment on how frequently

10:19:02

24 refractory repairs are done on the cracking

10:19:05

1	units.	10:19:07
2	MR. REESE: Every refinery startup is	10:19:09
3	unique and an individual company decision as to	10:19:11
4	the extent of the repairs and the maintenance	10:19:14
5	actions taken during the downtime.	10:19:17
6	Refractory inspection is a typical task	10:19:17
7	during downtime or when vessel entry occurs.	10:19:22
8	Inspection findings identify the type of	10:19:23
9	refractory repairs to be executed.	10:19:25
10	MR. RAO: 15(b). What would be typical	10:19:31
11	rate of regenerator temperature increase under	10:19:33
12	normal startup conditions when no refractory	10:19:37
13	repair is involved?	10:19:41
14	MR. REESE: It's not possible to provide	10:19:43
15	a typical profile answer to the question. The	10:19:44
16	temperature increase profile is dependent upon	10:19:47
17	the individual's vessels and the extent of the	10:19:49
18	refractory work conducted. So some would, you	10:19:53
19	could go faster or slower, depending on the	10:19:57
20	amount of work you had. Right.	10:20:00
21	MR. RAO: Question 16. On page 10	10:20:03
22	regarding Marathon Refinery's adjusted standard	10:20:07
23	petition you indicate that Marathon's FCCU had	10:20:11
24	five startups over a period of three years.	10:20:15

1 16(a). Please clarify whether one or two 10:20:18
2 startups per year are typical for a catalytic 10:20:21
3 cracking unit? 10:20:27
4 MR. REESE: The number of unit startups 10:20:30
5 can vary based on the reasons for unit downtime. 10:20:32
6 As such, while large turnarounds are on 10:20:35
7 multiple-year intervals is not uncommon for 10:20:38
8 unplanned events to create unit shutdowns or hot 10:20:40
9 standby in a given year, a power outage due to 10:20:43
10 grade issues or weather such as winter storms, 10:20:46
11 hurricanes, or flooding may necessitate a 10:20:49
12 catalytic crack to be shut down. 10:20:53
13 Equipment breakdowns at the catalytic 10:20:54
14 cracking unit or other units may necessitate a 10:20:54
15 shutdown and subsequent startup. 10:20:58
16 MR. RAO: 16(b). Would it be possible to 10:21:01
17 provide startup information like Marathon's for 10:21:03
18 FCCUs at other refineries covered by the API's 10:21:07
19 proposal? 10:21:13
20 MR. REESE: The existing federal refinery 10:21:14
21 standards for catalytic cracking units require 10:21:16
22 continuous emissions monitoring, SIMS, for CO. 10:21:18
23 Performance reports for these monitors is 10:21:21
24 provided on a semiannual basis to IEPA and USEPA. 10:21:23

1 In these reports the CO concentrations are 10:21:28
2 recorded as well as the periods of shutdown, 10:21:31
3 startup, malfunctions, and/or maintenance which 10:21:33
4 are provided by date and hour. 10:21:35

5 In its pre-filed questions the Attorney 10:21:38
6 General's Office records Marathon's ambient 10:21:42
7 monitoring data. To our knowledge, the other 10:21:42
8 Illinois refineries have not had similar monitors 10:21:45
9 in their areas in recent years. 10:21:48

10 MR. RAO: Okay. And you will be 10:21:51
11 responding to the Attorney General's question? 10:21:52

12 MR. REESE: Right. Yes, sir. 10:21:54

13 MR. RAO: Okay. Question 17. Also on 10:21:58
14 page 10 you note that API's proposed alternative 10:22:01
15 emissions limit requires the frequency and 10:22:05
16 duration of operations in startup or hot standby 10:22:08
17 mode are minimized to the greatest extent 10:22:11
18 practicable. 10:22:15

19 17(a). Please comment on whether the 10:22:16
20 affected refineries maintain information on 10:22:18
21 frequency and duration of FCCUs in hot standby 10:22:20
22 mode on a monthly or yearly basis. If so, please 10:22:25
23 provide such data. 10:22:28

24 MR. REESE: As noted in the previous 10:22:30

1 answer to question 16, this information is part 10:22:31
2 of the current regulatory report contents for CO 10:22:34
3 SIPs. 10:22:37

4 MR. RAO: 17(b). Also comment on whether 10:22:38
5 hot standby -- 10:22:41

6 HEARING OFFICER: Did you have a 10:22:43
7 question? 10:22:45

8 MR. ARMSTRONG: Yes. Andrew Armstrong 10:22:45
9 with the Illinois Attorney General's Office. I 10:22:47
10 have a follow-up question about the ExxonMobil 10:22:49
11 AERMOD data. I believe it's referenced in the 10:22:51
12 Technical Support Documents for ExxonMobil's 10:22:55
13 proposal for adjusted standard on page 34. 10:23:00

14 It doesn't appear that there was more 10:23:04
15 detail provided beyond the statement that 10:23:06
16 ExxonMobil has used AERMOD to conduct screening 10:23:09
17 modeling. 10:23:13

18 And then the -- the results of that, 10:23:14
19 generally summarized -- I was wondering if API 10:23:17
20 could submit more detail about the AERMOD 10:23:20
21 screening that ExxonMobil performed, including 10:23:23
22 the inputs and then more detail on the results? 10:23:26

23 MR. MESSINA: This is Alec Messina on 10:23:32
24 behalf of API, and we will follow up after the 10:23:34

1	hearing and provide what information we can.	10:23:37
2	MR. ARMSTRONG: Sounds good. Thank you.	10:23:39
3	HEARING OFFICER: Okay.	10:23:41
4	MR. RAO: So where were we? 17 --	10:23:42
5	HEARING OFFICER: A.	10:23:46
6	MR. RAO: 17(b). Yeah. 17B. Also	10:23:48
7	comment on whether hot standby operational mode	10:23:51
8	falls under the purview of SSM SIP calls?	10:23:55
9	MR. REESE: Hot standby is specifically	10:24:00
10	noted as an opt-in scenario for the alternative	10:24:01
11	emission standard in the federal language.	10:24:05
12	MR. RAO: Okay. Thank you. That's all.	10:24:07
13	HEARING OFFICER: Okay. Are there any	10:24:10
14	other questions from the Board? Okay. And then	10:24:11
15	just again, if you could please respond here	10:24:13
16	today or in written public comment to JCAR's	10:24:14
17	staff changes to, and questions, to the rule text	10:24:17
18	in public comment two as well as to the Board's	10:24:20
19	suggested changes attached to its pre-filed	10:24:23
20	questions. Thank you.	10:24:26
21	MR. REESE: All right.	10:24:26
22	HEARING OFFICER: It's close enough to	10:24:31
23	10:30 that I think we'll take a break now for 10	10:24:32
24	minutes and be back here at 10:35.	10:24:34

1	(Break taken at this time)	10:24:34
2	HEARING OFFICER: Back on the record. So	10:36:57
3	we'll be going next to Philip Crnkovich with East	10:37:09
4	Dubuque Nitrogen Fertilizers. Okay. Are you	10:37:16
5	set? And so if the court reporter could please	10:37:18
6	swear in the witness.	10:37:20
7	(Witness sworn)	10:37:20
8	PHILIP CRNKVICH,	10:37:20
9	being first duly sworn on oath, was examined and	10:37:20
10	testified as follows:	10:37:20
11	HEARING OFFICER: Okay.	10:37:20
12	MR. TAYLOR: And just for the record, my	10:37:28
13	name is Byron Taylor representing Mr. Crnkovich	10:37:30
14	and Dubuque Fertilizers.	10:37:33
15	HEARING OFFICER: Okay. As mentioned	10:37:35
16	earlier, the witness' testimony is entered into	10:37:36
17	the record as a thread and it's entered as	10:37:38
18	Hearing Exhibit Number Five.	10:37:43
19	We will proceed with questions first from	10:37:47
20	the Attorney General's Office, if you'd like to	10:37:50
21	come up here.	10:37:51
22	MR. JAMES: Hi. Jason James, Illinois	10:37:52
23	Attorney General's Office. And like we had	10:37:59
24	before, I'll read through the questions that we	10:38:03

1	had pre-filed and then perhaps ask some follow-up	10:38:05
2	depending.	10:38:08
3	DIRECT EXAMINATION BY	10:38:08
4	MR. JAMES:	10:38:08
5	MR. JAMES: And so number one, how did	10:38:09
6	EDNF determine that alternative -- the	10:38:11
7	calculation method -- in using an averaging	10:38:15
8	period was the best option to comply with	10:38:16
9	emission standards while accounting for startups	10:38:20
10	and shutdowns?	10:38:20
11	EDNF's testimony explains that it's not	10:38:21
12	practicable to initiate emissions control	10:38:25
13	technology sooner by increasing the temperature	10:38:28
14	of the flue more quickly.	10:38:29
15	Were any other emission control methods	10:38:32
16	considered? For example, using different	10:38:34
17	reductant in the SCR process, or hydrogen	10:38:36
18	peroxide injection?	10:38:36
19	Please explain whether any alternatives	10:38:41
20	aside from increasing the flue heat more rapidly	10:38:41
21	were considered, and the reasons they would or	10:38:46
22	would not be effective or practical in this	10:38:47
23	context.	10:38:47
24	MR. CRNKVICH: Okay. East Dubuque	10:38:51

1 Nitrogen followed the method that USEPA approved 10:38:53
2 in Subpart Ga, which explicitly includes an 10:38:55
3 averaging method that it does not have a 10:38:58
4 carve-out for startup, shutdown or malfunction. 10:39:01
5 It's a standard that applies at all times 10:39:03
6 during -- during operating periods. This -- 10:39:06
7 okay, that's part one. To the second part of 10:39:10
8 your question, the minimum temperature 10:39:14
9 requirement is independent of the reductant that 10:39:16
10 is used. 10:39:19
11 It is based on the catalyst that is 10:39:19
12 utilized and that determines what temperature is 10:39:22
13 necessary for the reaction that destroys the nit 10:39:25
14 -- the NO2 or NO -- so it is not emitted. 10:39:33
15 So changing the reductant would not have 10:39:37
16 any effect. While hydrogen peroxide could 10:39:40
17 theoretically improve the effectiveness of 10:39:44
18 absorption it would not be -- it would be 10:39:46
19 insufficient here. 10:39:49
20 It does reduce it somewhat, but it would 10:39:50
21 not allow us to meet the three pounds per ton 10:39:53
22 limit during startup and shutdown. 10:39:56
23 MR. JAMES: Thank you. Number two. EDNF 10:40:02
24 states that the proposed 30 operating day rolling 10:40:04

1 average and calculation method are drawn from 10:40:07
2 Subpart Ga of Title 40, part 60, of the Code of 10:40:10
3 Federal Regulations, which, quote, applies to any 10:40:15
4 nitric acid production unit that commences 10:40:17
5 construction or modification after October 14th 10:40:21
6 of 2011. 10:40:21

7 However, both of EDNF's nitric acid 10:40:21
8 processes were built and/or modified before 2011 10:40:27
9 and so are governed by Subpart G. Is EDNF 10:40:30
10 operationally similar to sources to which Subpart 10:40:30
11 Ga applies, particularly with respect to startups 10:40:37
12 and shutdowns? 10:40:40

13 What, if any, differences exist and how 10:40:42
14 might they impact the effectiveness of the 10:40:44
15 rolling average or calculation method? 10:40:46

16 MR. CRNKVICH: The units that were 10:40:49
17 designed and that were constructed or modified 10:40:51
18 prior -- after the applicability date for Subpart 10:40:55
19 Ga -- were designed to meet the Subpart Ga 10:41:01
20 standard. 10:41:03

21 Our units were designed to meet the 10:41:04
22 standards that were in effect at the time they 10:41:06
23 were constructed. However, they all do different 10:41:08
24 designs, so since we only have two acid plants 10:41:12

1 we're not familiar with others, so we cannot 10:41:15
2 comment further on other units. 10:41:18

3 MR. JAMES: Thank you. Number three. 10:41:21
4 EDNF proposes to reduce the current NOx emissions 10:41:25
5 limit in 35 Illinois Administrative Code 10:41:30
6 217.381(a)(1) to 1.5 pounds per ton. How did it 10:41:37
7 determine that limit was reasonable? Please 10:41:39
8 provide any documentation in support. 10:41:41

9 EDNF bases other portions of the proposed 10:41:44
10 amendments, including the 30-day rolling average, 10:41:49
11 on USEPA standards which lowered the NOx 10:41:50
12 emissions limit to 0.50 pounds per ton. 10:41:54

13 How do EDNF's processes differ from those 10:41:58
14 sources governed by that rule and how do these 10:42:02
15 differences justify the different standards? 10:42:04

16 MR. CRNKVICH: EDNF completed analysis of 10:42:06
17 our existing data to determine what the 10:42:09
18 applicable pound per ton limit would be on -- 10:42:12
19 that we could comply with on a 30 -- on a 30 10:42:15
20 operating day average, and that is the number 10:42:18
21 that we did -- that we did propose. 10:42:22

22 MR. JAMES: Okay. 10:42:33

23 MR. CRNKVICH: So for the sub facilities 10:42:40
24 that are subject to Subpart Ga, they were 10:42:43

1 designed specifically for that. We have two acid 10:42:45
2 plants in Illinois. They are the only two acid 10:42:48
3 plants that we were aware of in Illinois. 10:42:51

4 And when I say acid I'm referring to 10:42:55
5 nitric acid. And so we do not know -- we're not 10:42:57
6 familiar with how the other plants were designed 10:43:00
7 or constructed -- so we cannot comment further. 10:43:03

8 MR. JAMES: Okay. Thank you. Number 10:43:05
9 four. If EDNF's proposal were adopted and a weak 10:43:08
10 acid nitric manufacturing process were 10:43:13
11 subsequently constructed or modified in Illinois, 10:43:16
12 would EDNF's proposed generally applicable NOx 10:43:18
13 emissions limit of 1.5 pounds per ton for new 10:43:21
14 weak nitric acid manufacturing processes in 35 10:43:25
15 Illinois Administrative Code 217.381(a)(1), which 10:43:28
16 applies to any emission sources constructed or 10:43:33
17 modified after April 14th, 1972, conflict with 40 10:43:36
18 C.F.R., Section 60.72 a's limit of 0.50 pounds 10:43:40
19 per ton for new nitric acid production units that 10:43:47
20 commence construction or modification after 10:43:51
21 October 14th, 2011? 10:43:53

22 MR. CRNKVICH: A new source constructed 10:43:57
23 after the Subpart Ga applicability date would be 10:43:59
24 subject to the federal Subpart Ga standard of 10:44:03

1 0.5. It would also be subject to the applicable 10:44:06
2 standard in Illinois, which we are proposing to 10:44:09
3 be 1.5 on the same calculation basis. 10:44:13

4 MR. JAMES: Thank you. Number five. 10:44:19
5 What impact, if any, does EDNF predict its 10:44:22
6 proposed regulations will have on overall monthly 10:44:26
7 and yearly NOx emissions relative to existing 10:44:29
8 rules? 10:44:33

9 Please include date on current monthly or 10:44:34
10 yearly NOx emissions and the maximum NOx 10:44:36
11 emissions allowable under EDNF's proposed 10:44:40
12 modifications? 10:44:44

13 MR. CRNKVICH: The adoption of the 10:44:45
14 proposed rule is not expected to result in a 10:44:46
15 change in emissions from the nitric acid plants. 10:44:49

16 We are proposing the rule -- to have a 10:44:53
17 rule that we can actually demonstrate compliance 10:44:54
18 with and not have a mal -- a deviation every time 10:44:56
19 we start it up or shut down an acid plant. 10:44:59

20 MR. JAMES: Thank you. Number six. Are 10:45:04
21 there any alternatives to a non-numerical opacity 10:45:06
22 standard during startup and shutdown? For 10:45:09
23 example, is it possible to use an averaging 10:45:12
24 method like that used for NOx emissions for 10:45:14

1 opacity? If yes, why did EDNF choose to use 10:45:17
2 non-numerical opacity standards during startup 10:45:23
3 and shutdowns? Why are these non-numerical 10:45:27
4 standards preferable to other options? 10:45:29
5 MR. CRNKVICH: In the USEPA in the 10:45:30
6 preamble to Subpart Ga it made it very clear that 10:45:33
7 opacity from a nitric acid plant is 10:45:37
8 non-particulate matter. 10:45:41
9 It is the actual color of the NO2 gas 10:45:42
10 that is being emitted. So they're -- and they 10:45:44
11 are being -- can you rephrase or say your 10:45:53
12 question again? 10:46:00
13 MR. JAMES: Oh, sure. Why choose to use 10:46:01
14 non-numerical opacity standards during startup 10:46:04
15 and shutdowns, and why is that preferable to 10:46:09
16 other options? 10:46:11
17 MR. CRNKVICH: Okay. Since NOx is the 10:46:13
18 actual cause of the emission of opacity and that 10:46:14
19 is being measured by SIMS and the whole goal is 10:46:18
20 to minimize NOx emissions, so that by minimizing 10:46:21
21 NOx emissions we also minimize opacity. 10:46:26
22 And there's not going to be any 10:46:31
23 difference. By controlling NOx you're also 10:46:33
24 controlling opacity. 10:46:37

1 MR. JAMES: Thanks. Number seven. How 10:46:39
2 are EDNF's proposed amendments to opacity 10:46:43
3 standards and limitations during startups and 10:46:47
4 shutdowns, quote, legally practical -- 10:46:49
5 practically enforceable -- as required by USEPA 10:46:52
6 guidance? 10:46:55
7 MR. CRNKVICH: Since Subpart Ga regulates 10:46:56
8 NOx without an opacity limit and is considered 10:47:00
9 legally and practically enforceable, the same 10:47:01
10 would be expected to apply to this regulation. 10:47:04
11 In particular, since the opacity 10:47:07
12 literally is the NOx and NOx has numerical 10:47:09
13 limitations, all operations are subject to 10:47:12
14 enforceable limits. 10:47:14
15 MR. JAMES: Thank you. Number eight. 10:47:17
16 Did EDNF consider whether the proposed 10:47:20
17 non-numerical standards for startup and shutdown 10:47:24
18 might be, quote, an inappropriately high level of 10:47:26
19 emissions or an effectively unlimited or 10:47:29
20 controlled level of emissions -- pardon me, 10:47:30
21 uncontrolled level of emissions -- such that they 10:47:33
22 would constitute impermissible de facto 10:47:36
23 exemptions for emissions during startup and 10:47:39
24 shutdowns? 10:47:41

1 MR. CRNKVICH: The proposed NOx limit in 10:47:42
2 averaging period will provide an effective limit 10:47:44
3 and enforceable limit on NOx emissions. And 10:47:46
4 since opacity literally is the NOx, that will 10:47:48
5 also provide an effective and enforceable limit 10:47:51
6 on opacity. 10:47:55

7 MR. JAMES: Thanks. And number nine. 10:47:56
8 Have any other states proposed similar 10:47:59
9 non-numerical opacity standards for weak nitric 10:47:59
10 acid processes during startups and shutdowns in 10:48:06
11 response to the SIP call? 10:48:07

12 MR. CRNKVICH: Since EDNF only has 10:48:09
13 operations in Illinois, the SIP call response of 10:48:11
14 other states was not investigated. Florida as 10:48:14
15 director of institute approval from EPA in 10:48:18
16 Florida just last month, we're reviewing that and 10:48:21
17 will be happy to provide comments following the 10:48:23
18 hearing. 10:48:26

19 MR. JAMES: Great. Thank you. Those are 10:48:27
20 all the questions I have. 10:48:28

21 MR. TAYLOR: Could I just state that 10:48:31
22 questions three and five asked us to submit data 10:48:32
23 and we'll respond by submitting that data in 10:48:35
24 supplemental comments? 10:48:39

1	MR. JAMES: Thank you.	10:48:41
2	HEARING OFFICER: Okay. Are there any	10:48:41
3	other questions from any other participants?	10:48:43
4	Seeing none, we will go to the Board's questions.	10:48:46
5	CROSS EXAMINATION BY	10:48:46
6	MR. RAO:	10:48:46
7	MR. RAO: I'll start with question 80 on	10:48:48
8	the Board's Hearing Officer order. On page four	10:48:53
9	of your testimony you state that nitric acid	10:48:56
10	processes emit more NOx per pound of production	10:49:00
11	during startup and shutdown than they do during	10:49:04
12	normal operations.	10:49:08
13	Please comment on whether EDNF maintains	10:49:09
14	records of the frequency and duration of startups	10:49:12
15	and shutdown of the two nitric acid processes?	10:49:15
16	MR. CRNKVICH: Yes. As required by our	10:49:19
17	CAAPP permit we do maintain records of each	10:49:22
18	startup and shutdown which includes the start	10:49:24
19	time and the end time of each startup or	10:49:27
20	shutdown. And we would be more than happy to	10:49:29
21	provide that information for the record.	10:49:32
22	MR. RAO: Thank you. Question 19. On	10:49:34
23	page five you note that the nitric acid processes	10:49:37
24	cannot meet Section 217.381 during startup and	10:49:43

1 shutdown because ammonia cannot be added to the
2 SCRs unless the temperature of the SCRs is at
3 least 350 degrees Fahrenheit.

10:49:48

10:49:52

10:49:58

4 Please comment on whether auxiliary
5 heaters could be used to increase the SCR
6 temperature to 350 degrees Fahrenheit prior to
7 addition of ammonia during startup and shutdown.

10:50:01

10:50:04

10:50:07

10:50:10

8 MR. CRNKVICH: Preheating the SCR would
9 require a source of heat resulting in an increase
10 in emission, and an extensive engineering study
11 would be determined -- would be needed -- to
12 determine whether it was actually feasible.

10:50:12

10:50:14

10:50:19

10:50:20

10:50:22

13 We would have to find a source for the
14 preheating energy, a way to transfer the energy
15 to the flue gas screen without impacting the
16 process during normal operation can be physically
17 added to the process.

10:50:25

10:50:27

10:50:29

10:50:33

10:50:35

18 It is not clear at this juncture where
19 that would be -- whether that would be
20 successful. It does not make sense to make
21 significant changes to the operation for a few
22 hours of reduction in NOx emissions, and the
23 excess emissions are included in the averaging
24 period.

10:50:36

10:50:40

10:50:42

10:50:45

10:50:48

10:50:53

10:50:56

1 MR. RAO: Question 20. On page 12 you 10:50:59
2 note that EDNF's proposal is more stringent than 10:51:01
3 the existing rule because the 30-day rolling 10:51:01
4 average, rolled daily available NOx emissions 10:51:11
5 limit, is lower than the current single value 10:51:12
6 daily limit. 10:51:16

7 Please explain the rationale for 10:51:17
8 proposing a NOx limit based on that 30-day 10:51:19
9 rolling average during normal operations. 10:51:22

10 MR. CRNKVICH: Since Subpart Ga supplies 10:51:26
11 a compliance method that includes startup, 10:51:29
12 shutdown and malfunction, we follow the EPA's 10:51:31
13 calculation methodologies as it would have a good 10:51:34
14 chance of acceptance by USEPA. 10:51:38

15 The Subpart methodology, Subpart Ga 10:51:40
16 methodology, its averaging period provides 10:51:44
17 adequate insurances to prevent spikes during 10:51:47
18 normal operations. 10:51:49

19 But if the Board would prefer to keep the 10:51:50
20 existing three pound per ton for limit other than 10:51:52
21 startup and shutdown, we would not object to 10:51:55
22 that. 10:51:57

23 MR. RAO: Thank you. That answers 20(b). 10:51:59
24 Question 21. Are you aware of a recent USEPA 10:52:04

1 final rule? I refer the citation here. It's in 10:52:08
2 Federal Register, Volume 88, number 149, dated 10:52:12
3 August 4, 2023, approving Florida's State 10:52:17
4 Implementation Plan revisions including NOx 10:52:24
5 limitations for nitric acid plants. 10:52:25
6 If so, please comment on how the proposed 10:52:27
7 NOx limitations compare with those in the Florida 10:52:30
8 SIP revisions approved by USEPA? 10:52:35
9 MR. CRNKVICH: We are just starting to 10:52:37
10 review the Florida approach and we'll be happy to 10:52:39
11 provide comments -- any comments that we have -- 10:52:42
12 following the hearing. 10:52:45
13 MR. RAO: Thank you. That's all I have. 10:52:47
14 HEARING OFFICER: Any other questions? 10:52:48
15 The only other thing is if you could -- 10:52:53
16 MR. CRNKVICH: I'd also like to 10:52:56
17 supplement my answer. On the terms of spikes, we 10:52:57
18 also have other permit limits that would 10:53:00
19 eliminate the possibility of spikes because, 10:53:02
20 number one, an acid plant does have a separate 10:53:06
21 limit on pounds per hour and pounds per ton that 10:53:08
22 does not apply during startup or shutdown. 10:53:13
23 The pound per hour limit has an exception 10:53:17
24 for startup and shutdown. The pounds per -- 10:53:19

1	pound per ton -- has an exemption for startup,	10:53:22
2	shutdown and malfunction. And that -- the latter	10:53:25
3	limit -- came from USEPA's consent decree.	10:53:28
4	MR. RAO: Can you provide citations to	10:53:35
5	those?	10:53:37
6	MR. CRNKVICH: Yes.	10:53:37
7	MR. TAYLOR: Sure.	10:53:39
8	MR. RAO: Thank you.	10:53:40
9	HEARING OFFICER: Okay. So just one last	10:53:42
10	thing. If you could please respond here today or	10:53:44
11	in a written public comment to JCAR staff's	10:53:45
12	changes to and questions to the rule text in	10:53:47
13	public comment two as well as the Board suggested	10:53:49
14	changes attached to its pre-filed questions.	10:53:53
15	MR. TAYLOR: We'll do that.	10:53:55
16	HEARING OFFICER: Okay. Thank you. All	10:53:57
17	right. We will move on to the next witnesses.	10:53:58
18	We'll have both Sharene Shealey from Midwest	10:54:00
19	Generation and Cynthia Vodopivec with Dynegy come	10:54:03
20	up, please. Okay.	10:54:07
21	Would the court reporter please swear in	10:54:56
22	the witnesses?	10:54:56
23	(Witnesses sworn)	10:55:04
24	SHARENE SHEALEY AND CYNTHIA VODOPIVEC,	10:55:04

1	being first duly sworn on oath, were examined and	10:55:04
2	testified as follows:	10:55:04
3	HEARING OFFICER: As mentioned earlier,	10:55:08
4	the witness' testimony is entered into the record	10:55:08
5	as a thread and Shealey's testimony will be	10:55:10
6	entered in as Hearing Exhibit Six and Vodopivec's	10:55:15
7	testimony will be entered as Hearing Exhibit	10:55:20
8	Number Seven.	10:55:23
9	We'll proceed with questions from the	10:55:24
10	Attorney General's Office first. And if the	10:55:25
11	witnesses could please when you first answer the	10:55:27
12	question state your name.	10:55:29
13	MR. ARMSTRONG: Thank you. Andrew	10:55:39
14	Armstrong for the Illinois Attorney General's	10:55:40
15	Office. One note from my last question, I	10:55:43
16	referenced AERMOD. That's A-E-R-M-O-D, all	10:55:46
17	capital letters.	10:55:52
18	DIRECT EXAMINATION BY	10:55:52
19	MR. ARMSTRONG:	10:55:52
20	MR. ARMSTRONG: Good morning. So I	10:55:56
21	have -- we had questions for both Dynegy and	10:55:59
22	Midwest Generation. Some of them are the same	10:56:02
23	questions, so if you would like to answer them as	10:56:06
24	a panel just provide one answer on behalf of the	10:56:09

1 joint proponents. That would be fine from our 10:56:13
2 perspective. And I'll flag that when I ask one 10:56:17
3 of those questions. 10:56:22

4 So question number one for Dynasty -- 10:56:26
5 Dynegy -- Dynegy Midwest Generation. Is it your 10:56:29
6 opinion that condition 7.1.3 of the Baldwin, 10:56:31
7 Kincaid and Newton Clean Air Act Permit Program 10:56:39
8 permits authorized opacity exceedances and/or 10:56:44
9 violations? 10:56:50

10 MS. VODOPIVEC: This is Cynthia Vodopivec 10:56:50
11 from Dynegy. And before I respond I just want to 10:56:55
12 note that in my testimony today I'm going to 10:56:58
13 refer to Dynegy Midwest Generation, LLC, Illinois 10:57:00
14 Power Generating Company, and Kincaid Generation, 10:57:04
15 LLC, individually and collectively as Dynegy for 10:57:06
16 the record. 10:57:06

17 It is my opinion and Dynegy's position 10:57:13
18 that the Baldwin, Kincaid and Newton CAAPP 10:57:16
19 permits authorize the opacity of emissions from 10:57:20
20 the permittee's operation of coal fired boilers 10:57:23
21 in these plants to exceed the applicable opacity 10:57:25
22 standards set forth in the Illinois State 10:57:27
23 Implementation Plan during periods of startup, 10:57:29
24 malfunction and breakdown, subject to the terms 10:57:32

1 and conditions set forth in the conditions 7.1.3 10:57:34
2 B and C of each permit. The basis for this 10:57:39
3 conclusion is detailed in our Statement of 10:57:44
4 Reasons included on pages 11 through 18. 10:57:47
5 To be clear, when I talk about the 10:57:50
6 Statement of Reasons in my testimony today I am 10:57:52
7 referring to the August 7th, 2023 Statement of 10:57:55
8 Reasons of Dynegy and Midwest Generation in the 10:57:59
9 sub document. 10:58:02
10 MR. ARMSTRONG: Question number two. You 10:58:07
11 assert that the Joint Proposal is intuitively and 10:58:08
12 demonstrably more stringent than the current SMB 10:58:14
13 authorizations in the station's CAAPP, C-A-A-P-P, 10:58:18
14 permits, and the Illinois SIP, which allow 10:58:23
15 operations in excess of applicable opacity 10:58:28
16 standards during SMB events. 10:58:31
17 That's from the Statement of Reasons that 10:58:34
18 you referenced at page three. Sub question A. 10:58:35
19 If condition 7.1.3 of the CAAPP permits only 10:58:41
20 authorizes continued operation during startup, 10:58:46
21 shutdown and malfunction events, how is the Joint 10:58:50
22 Proposal more stringent than the conditions of 10:58:54
23 these current CAAPP permits? 10:58:56
24 MS. VODOPIVEC: Cynthia Vodopivec from 10:59:01

1 Dynegey. This question is based on inaccurate and
2 incomplete summary of condition 7.1.3. Condition
3 7.1.3(b) of each CAAPP permit states that during
4 startup, quote, the permittee is authorized to
5 operate an effective boiler in violation of the
6 applicable standards. End quote.

7 That sentence goes on to identify which
8 applicable standards are the subject of that
9 sentence, including the applicable opacity
10 standards set forth in the Illinois SIP, State
11 Implementation Plan.

12 Dynegey understands this to mean that
13 opacity in excess of those standards is
14 authorized during periods of startup subject to
15 the other terms and conditions of condition
16 7.1.3(b).

17 Condition 7.1.3(c) of each CAAPP permit
18 states that in the event of a malfunction or
19 breakdown, quote, the permittee is authorized to
20 continue operation of an effective boiler in
21 violation of the applicable standards. End
22 quote.

23 That sentence goes on to identify which
24 applicable standards are the subject of that

1 sentence, including the applicable opacity 11:00:12
2 standards set forth in the Illinois SIP, State 11:00:15
3 Implementation Plan. 11:00:18
4 Dynegy understands this to mean that 11:00:21
5 opacity in excess of those standards is 11:00:23
6 authorized during periods of malfunction and 11:00:25
7 breakdown subject to the other terms and 11:00:28
8 conditions of condition 7.1.3 C. 11:00:31
9 The Joint Proposal is more stringent 11:00:37
10 because it includes a limit on the percent value 11:00:39
11 and duration of an authorized opacity -- of 11:00:42
12 authorized opacity -- during periods of startup, 11:00:47
13 malfunction and breakdown and work practice 11:00:49
14 requirements. 11:00:51
15 Those limits and work practice 11:00:53
16 requirements are not required by the current 11:00:54
17 CAAPP permits or the Illinois State 11:00:56
18 Implementation Plan. 11:01:00
19 MR. ARMSTRONG: This question two, sub 11:01:05
20 question B, could be answered as a panel question 11:01:09
21 if you'd like. How, if at all, does the Joint 11:01:12
22 Proposal avoid backsliding, which is prohibited 11:01:18
23 under Section 110(1) of the Clean Air Act? 11:01:20
24 MR. SAWULA: Yeah, I think we can answer 11:01:45

1 that as a joint, and Cynthia can deliver the 11:01:46
2 answer. Andrew Sawula, S-a-w-u-l-a, from 11:01:50
3 ArentFox Schiff. 11:01:57
4 MS. VODOPIVEC: Cynthia Vodopivec from 11:02:01
5 Dynegy again. Section 111 -- sorry. Section 11:02:03
6 110(1) of the Clean Air Act prohibits USEPA from 11:02:05
7 approving any SIP provision that, quote, would 11:02:10
8 interfere with any applicable requirement 11:02:12
9 concerning attainment and reasonable further 11:02:14
10 progress as defined in Section 7501 of this 11:02:16
11 title, or any other applicable requirement of 11:02:21
12 this chapter. End quote. 11:02:25
13 Dynegy believes that the Joint Proposal 11:02:28
14 is fully approvable pursuant to S110(1), 11:02:30
15 including for the reasons detailed on pages 31 11:02:35
16 through 33 of its Statement of Reasons. 11:02:38
17 In short, the Joint Proposal would not 11:02:43
18 affect the emissions of any pollutant, would not 11:02:45
19 negatively impact air quality in relation to any 11:02:48
20 National Ambient Air Quality standard. 11:02:52
21 It would not negatively affect compliance 11:02:56
22 with any other Clean Air Act requirement. And as 11:02:58
23 explained in the Technical Support Document 11:03:02
24 prepared by Steven Northey and discussed in the 11:03:04

1	Statement of Reasons, the Joint Proposal would	11:03:07
2	not interfere with attainment, reasonable further	11:03:10
3	progress, or any other Clean Air Act	11:03:13
4	requirements.	11:03:16
5	MR. SAWULA: And Sharene Shealey would	11:03:19
6	also like to make a statement in response to what	11:03:20
7	was question number four from the Attorney	11:03:22
8	General's pre-filed questions.	11:03:24
9	MS. SHEALEY: I'm Sharene Shealey,	11:03:28
10	Midwest Generation, LLC. S-h-a-r-e-n-e,	11:03:28
11	S-h-e-a-l-e-y. I just wanted to affirm the	11:03:35
12	answer from Dynegy, we agree with that. Midwest	11:03:37
13	Generation, LLC, agrees with that answer.	11:03:41
14	MR. ARMSTRONG: Moving on to question	11:03:46
15	number three, which also could be answered as a	11:03:47
16	panel if preferred. The Joint Proposal in part	11:03:50
17	relies on compliance with work practices as a	11:03:55
18	condition to using an alternative averaging	11:04:00
19	period.	11:04:03
20	Specifically, what do you mean by, quote,	11:04:05
21	good engineering practices? End quote. That's	11:04:08
22	from the Statement of Reasons at page 24. Please	11:04:13
23	explain how a standard of quote, good engineering	11:04:16
24	practices, end quote, is, quote, legally and	11:04:20

1 practically enforceable. End quote. And that's 11:04:24
2 quoting from 80 Federal Register 33840, 33978. 11:04:28
3 MR. SAWULA: We'll respond as a panel 11:04:50
4 with Cynthia Vodopivec first answering for Dynegy 11:04:51
5 and then Sharene Shealey will make a statement 11:04:55
6 for Midwest Generation. 11:04:55
7 MS. VODOPIVEC: Cynthia Vodopivec from 11:05:00
8 Dynegy. So Dynegy modeled this requirement on a 11:05:02
9 recommendation -- on recommendation six -- for an 11:05:05
10 alternative emission limitation from USEPA's 2015 11:05:07
11 SIP State Implementation Plan call. 11:05:11
12 That recommendation calls for operating, 11:05:15
13 quote, in a manner consistent with good practice 11:05:17
14 for minimizing emissions. 11:05:22
15 Note also that similar terms are used in 11:05:23
16 the Clean Air Act regulations and in Dynegy's 11:05:25
17 CAAPP permits. 11:05:29
18 For example, 40 C.F.R., Section 11:05:31
19 3063.10000(b), which is incorporated to the CAAPP 11:05:36
20 permits -- I lost my space here. Requires 11:05:45
21 operation, quote, in a manner consistent with 11:05:50
22 safe and good air pollution control practices for 11:05:53
23 minimizing emissions. End quote. And provisions 11:05:58
24 of a national emission standard for hazardous air 11:06:01

1 pollutants use the term good engineering 11:06:06
2 practices. 11:06:08

3 MS. SHEALEY: Sharene Shealey, Midwest 11:06:13
4 Generation, LLC. Similarly, Powerton's stations 11:06:15
5 CAAPP permit condition, I think it was 6.6.3(d), 11:06:17
6 as in door, has -- has some -- has similar 11:06:24
7 language, and so I affirm that answer on behalf 11:06:30
8 of Midwest Gen. 11:06:33

9 MR. ARMSTRONG: A follow-up question on 11:06:35
10 that. On September 7th JCAR staff emailed the 11:06:35
11 Pollution Control Board and provided a request 11:06:43
12 regarding the reference to good engineering 11:06:46
13 practices. 11:06:49

14 Specifically, JCAR said please 11:06:51
15 incorporate by reference the standard to be 11:06:54
16 enforced. Do Dynegy or Midwest Generation have 11:06:58
17 any suggestions about how that comment could be 11:07:03
18 responded to? 11:07:05

19 MR. SAWULA: I think we will take that 11:07:19
20 question under advisement and can respond to it 11:07:21
21 in our joint comment at the end of the 11:07:24
22 proceeding. Is there -- where would that 11:07:28
23 specific question be located? 11:07:31

24 MR. ARMSTRONG: This is public comment 11:07:34

1	number two in the docket, the September 7th, 2023	11:07:36
2	email. And I believe it is comment 30 on part	11:07:42
3	212.	11:07:53
4	MR. SAWULA: Thank you.	11:08:06
5	MR. ARMSTRONG: Question number four.	11:08:12
6	This is directed to Dynegy specifically. In your	11:08:14
7	Statement of Reasons you explained that, quote,	11:08:19
8	it is technically infeasible to avoid all opacity	11:08:21
9	exceedances during SMB, end quote; and that	11:08:25
10	Baldwin boiler two, equipped with a baghouse,	11:08:29
11	came, quote, precariously close to exceeding the	11:08:34
12	standard, end quote. That is from the Statement	11:08:39
13	of Reasons at 19.	11:08:41
14	Sub question A. Is it your understanding	11:08:43
15	that the boiler in this example did not	11:08:46
16	ultimately exceed the opacity standard at that	11:08:49
17	time?	11:08:51
18	MS. VODOPIVEC: Cynthia Vodopivec from	11:08:54
19	Dynegy. Yes, that is my understanding.	11:08:57
20	MR. ARMSTRONG: Sub question B. From	11:08:58
21	January of 2020 through the present on how many	11:08:59
22	occasions has the Baldwin plant exceeded the	11:09:03
23	applicable opacity standard?	11:09:07
24	MS. VODOPIVEC: From January 2020 through	11:09:08

1 September 26th, 2023, the coal fired boilers at 11:09:10
2 the Baldwin plant have not exceeded the 11:09:15
3 applicable opacity standard codified at 35 IAC 11:09:18
4 212.123. 11:09:18

5 MR. ARMSTRONG: Question number five. 11:09:26
6 Have you, Dynegy, considered utilizing baghouses 11:09:29
7 or other pollution control technologies at other 11:09:33
8 facilities to similarly avoid exceeding the 11:09:37
9 opacity standard? 11:09:40

10 If so, why have you determined not to 11:09:43
11 install additional pollution controls at other 11:09:45
12 facilities? 11:09:45

13 MS. VODOPIVEC: Cynthia Vodopivec, 11:09:49
14 Dynegy. As I explained to my declaration 11:09:50
15 supported Dynegy Statement of Reasons, which I 11:09:53
16 incorporated into my pre-filed testimony with sub 11:09:56
17 docket, Dynegy does not believe that Kincaid and 11:09:59
18 Newton coal fired boilers could avoid exceeding 11:10:01
19 the opacity standard through the installation of 11:10:04
20 baghouses or other pollution control 11:10:06
21 technologies. 11:10:08

22 Installing fabric filter baghouses on 11:10:08
23 Kincaid and Newton coal fired boilers might have 11:10:12
24 the potential to further reduce opacity to an 11:10:14

1 extent; however, Dynegy believes it would not 11:10:16
2 eliminate the risk of opacity exceedances during 11:10:22
3 startup, malfunction and breakdown events. 11:10:22

4 Moreover, based on Dynegy's industry 11:10:26
5 experience, Dynegy believes that baghouses would 11:10:29
6 cost tens of millions of dollars at each plant. 11:10:31
7 It would take approximately three years to 11:10:34
8 design, procure and install. 11:10:37

9 That means that baghouses could not help 11:10:38
10 control emissions of particulate matter and the 11:10:41
11 associated opacity from those units until late 11:10:44
12 2026 at the earliest. Yet, Dynegy currently 11:10:47
13 plans to cease operation and retire the Kincaid 11:10:50
14 and Newton plants in 2027. 11:10:53

15 As a result, even if Dynegy took 11:10:57
16 immediate steps to add baghouses to these coal 11:10:58
17 fired boilers at a cost of tens of millions of 11:11:01
18 dollars, the baghouses would operate for one year 11:11:03
19 or less, if at all. 11:11:06

20 MR. ARMSTRONG: What analyses form the 11:11:08
21 basis of your opinion that installation of 11:11:12
22 baghouses at Kincaid and Newton would not allow 11:11:14
23 compliance with the opacity standard? 11:11:19

24 MS. VODOPIVEC: Cynthia Vodopivec from 11:11:19

1 Dynegey. So as I mentioned before, based on our 11:11:51
2 experience with the baghouses we do not believe 11:11:53
3 that that is going to help us, especially in our 11:11:57
4 startup, shutdown -- or startup, malfunction and 11:12:00
5 breakdown limitations. 11:12:04

6 And as I've also mentioned, even if we 11:12:07
7 did install those baghouses they would not 11:12:09
8 operate for very much time because of the already 11:12:12
9 committed shutdown dates of those boilers. 11:12:16

10 MR. ARMSTRONG: But in your experience 11:12:20
11 would you agree that the baghouses at Baldwin 11:12:21
12 have been effective in preventing exceedances of 11:12:25
13 the opacity limit at that plant? 11:12:29

14 MS. VODOPIVEC: So based on my knowledge, 11:12:41
15 yes, the baghouses at Baldwin have been 11:12:42
16 effective. However, as we've stated in our 11:12:46
17 testimony, there's no guarantee that they will be 11:12:48
18 effective for those periods of startup and 11:12:52
19 breakdown and malfunction. 11:12:55

20 MR. ARMSTRONG: Okay. Question number 11:13:02
21 six. And I believe this could be answered as a 11:13:05
22 panel question if preferred. You state that, 11:13:10
23 quote, short-term changes in opacity make no 11:13:15
24 difference to the corresponding anticipated 11:13:19

1 maximum particulate matter emission range, end 11:13:21
2 quote. That's at the Statement of Reasons at 32. 11:13:26
3 What is the basis for that statement? 11:13:29
4 MS. VODOPIVEC: Cynthia Vodopivec, 11:13:34
5 Dynegy. The full statement from the Statement of 11:13:37
6 Reasons is, quote, short-term changes in opacity 11:13:38
7 make no difference to the corresponding 11:13:41
8 anticipated maximum PM emission rate and 11:13:45
9 associated PM mass emissions under Mr. Northey's 11:13:47
10 correlations or under the correlations that 11:13:50
11 Illinois EPA relied upon in approving these 11:13:52
12 plans, so long as the three hour opacity average 11:13:56
13 remains at or below 20 percent or 30 percent as 11:14:00
14 applicable. 11:14:03
15 The Technical Support documentation 11:14:05
16 provides the rationale for this conclusion, 11:14:07
17 including on pages nine, 10 and 12. 11:14:09
18 MR. ARMSTRONG: So with respect to the 11:14:14
19 reference to the anticipated maximum particulate 11:14:18
20 matter emission rate, would that be fair to say 11:14:22
21 that you're referencing the rate on an hourly 11:14:26
22 basis? 11:14:29
23 MR. SAWULA: For follow-up questions 11:14:33
24 about the Technical Support Document we do have 11:14:35

1 Mr. Northey. He's en route. He's going to be 11:14:38
2 here about 12:00. So if there are -- if you have 11:14:40
3 questions that get into the specifics about his 11:14:43
4 conclusions -- we'd be happy to have him answer 11:14:46
5 those questions here today. 11:14:48
6 I apologize, he was -- he had travel 11:14:49
7 delays -- and so I know he's arriving at about 11:14:52
8 12:00 today. 11:14:55
9 MR. ARMSTRONG: If we could just have an 11:14:57
10 answer to that in post-hearing comments that 11:14:59
11 would be acceptable. 11:15:02
12 MR. SAWULA: Okay. I'd be happy to do 11:15:04
13 that. Yeah. 11:15:06
14 MS. SHEALEY: Sharene Shealey, Midwest 11:15:11
15 Generation. Just for the record, you didn't ask 11:15:12
16 that question of Midwest Generation so that was 11:15:13
17 not a panel response. 11:15:16
18 MR. ARMSTRONG: Oh, I'm sorry. 11:15:17
19 MS. SHEALEY: That's okay. I just want 11:15:19
20 it to be clear. 11:15:21
21 MR. ARMSTRONG: Fair point. 11:15:22
22 MR. SAWULA: And just a follow-up 11:15:25
23 question. Could you restate for me, please, the 11:15:25
24 specific question you'd like us to respond to on 11:15:27

1 that for follow-up?

11:15:30

2 MR. ARMSTRONG: Yes. So in the quote in

11:15:31

3 question number six there's a reference to the

11:15:34

4 corresponding anticipated maximum particulate

11:15:39

5 matter emission rate.

11:15:44

6 And my question was, in that quote would

11:15:46

7 it be fair to say that rate is referring to an

11:15:51

8 hourly rate of emissions?

11:15:54

9 MR. SAWULA: Thank you. We'll --

11:15:58

10 MR. ARMSTRONG: If not, what rate is that

11:16:01

11 referring to?

11:16:03

12 MR. SAWULA: Okay. Thank you. We'll

11:16:04

13 respond to that.

11:16:05

14 MR. ARMSTRONG: Question number seven to

11:16:08

15 Dynegy. Does a longer averaging period allow for

11:16:25

16 more variability in terms of meeting the opacity

11:16:30

17 standard?

11:16:34

18 MS. VODOPIVEC: Cynthia Vodopivec from

11:16:35

19 Dynegy. The Joint Proposal will provide an

11:16:37

20 exception to the applicable Illinois opacity

11:16:40

21 standard, meaning that certain six minute

11:16:40

22 exceedances of the applicable opacity -- meaning

11:16:46

23 that certain -- excuse me. Meaning that certain

11:16:47

24 six minute exceedances in the applicable opacity

11:16:49

1 standard, but it would not result in more 11:16:52
2 variability in actual performance. 11:16:55

3 As discussed in the Statement of Reasons, 11:16:56
4 including on pages 13 through 19, the Joint 11:16:59
5 Proposal is narrower on its face than the current 11:17:02
6 SMP authorizations in the station's CAAPP permits 11:17:06
7 which state that the permittees are authorized to 11:17:09
8 operate in excess of their Illinois SIP opacity 11:17:13
9 limits during startup, malfunction and breakdown 11:17:15
10 events with no numerical opacity limit during 11:17:17
11 such events, no numeric limit on duration of such 11:17:20
12 events, and with fewer work practice 11:17:23
13 requirements. 11:17:25

14 In practice, Dynegy has historically 11:17:26
15 operated its coal fired boilers in reliance on 11:17:30
16 these startup, malfunction and breakdown 11:17:32
17 authorizations. 11:17:37

18 MR. ARMSTRONG: Question number eight, 11:17:40
19 for Dynegy. How does a longer period of allowed 11:17:41
20 variability opacity, which is an indicator for 11:17:45
21 PM, avoid negative impacts to air quality? 11:17:50

22 MS. VODOPIVEC: Cynthia Vodopivec from 11:17:54
23 Dynegy. So this is explained in detail in the 11:17:56
24 Technical Support documentation and in related 11:17:59

1 portions of the Statement of Reasons, and I refer
2 you to that explanation. But to summarize, I
3 offer the following brief explanation.

4 Opacity can be an indicator for PM. The
5 National Ambient Air Quality Standards for PM are
6 set in 24-hour and annual period. The National
7 Ambient Air Quality Standards, or NAAQS, is
8 impacted by changes in daily PM emission.

9 The current state opacity rules which
10 have been revised to eliminate the startup,
11 malfunction and breakdown provisions allow a
12 source to have 20 percent or 30 percent opacity
13 as applicable for each six minute period.

14 Note that at times opacity could be
15 higher. Based on 35 ILC, Sections 212.122(b),
16 212.123(b), and 212.124. But I will focus my
17 answer on what is allowed looking only at
18 sections 212.122(a), and 212.123(a).

19 A source operating at 20 percent or 30
20 percent opacity for every six minute period
21 during the day will have a daily average of 20
22 percent or 30 percent respectively. And it is
23 that daily average that would correlate with the
24 daily PM emissions rate, which in turn is a point

1 of reference for evaluating air quality under the
2 PM NAAQS.

3 Under the Joint Proposal, six minute
4 opacity values will be allowed to exceed 20
5 percent or 30 percent under certain
6 circumstances, but only if a three hour average
7 does not exceed 20 percent or 30 percent
8 respectively.

9 If opacity is no higher than 20 percent
10 or 30 percent in a three hour average basis then
11 it cannot be higher than 20 percent or 30 percent
12 on a 24-hour basis.

13 On a 24-hour basis the current version of
14 the State opacity regulations on the one hand, in
15 our Joint Proposal on the other hand, both would
16 allow the same maximum average opacity on a 24
17 hour basis. And again, 24 hour PM and annual PM
18 is what matters for the purposes of air quality.

19 MR. ARMSTRONG: Question number nine.
20 And this would be a panel answer potentially.
21 Given that the Joint Proposal would apply only to
22 a subset of Illinois coal fired power plants,
23 what makes it a rulemaking of general
24 applicability as opposed to a site-specific

1 rulemaking?

11:20:59

2 MR. SAWULA: Before either witness

11:21:00

3 answers I just wanted to check that the question

11:21:02

4 calls for a legal conclusion and it's outside the

11:21:04

5 scope of testimony, but there are statements that

11:21:07

6 the witnesses would like to make in response.

11:21:10

7 MS. VODOPIVEC: So Cynthia Vodopivec,

11:21:14

8 Dynegy. The Joint Proposal was filed with a sub

11:21:16

9 docket at the direction of the Board in its July

11:21:19

10 6th, 2023 order.

11:21:21

11 Given that the Joint Proposal was

11:21:24

12 previously submitted and discussed at length

11:21:26

13 before the Board in the main docket, we have

11:21:28

14 deferred to and agreed with the Board's judgment

11:21:30

15 that this is the proper forum to submit the Joint

11:21:33

16 Proposal.

11:21:36

17 MS. SHEALEY: Sharene Shealey, Midwest

11:21:38

18 Generation. I affirm that answer for Midwest

11:21:40

19 Generation.

11:21:42

20 MR. ARMSTRONG: Okay. Thank you. That

11:21:42

21 is all the questions for Dynegy, so I'll move on

11:21:45

22 to Midwest Generation. Question number one, is

11:21:49

23 it your opinion that condition 7.1.3 of the

11:21:58

24 Powerton CAAPP permit authorizes opacity

11:22:04

1 exceedances and/or violations?

11:22:08

2 MS. SHEALEY: Sharene Shealey, Midwest

11:22:12

3 Generation, LLC. And forgive me if I say Midwest

11:22:14

4 Gen, but that's -- it's Midwest Generation, LLC.

11:22:16

5 It is my opinion and Midwest Generation's opinion

11:22:20

6 that the Powerton CAAPP permit authorizes the

11:22:23

7 opacity of emissions from its operation of the

11:22:25

8 Powerton coal fired boilers to exceed the

11:22:29

9 applicable opacity standards set forth in the

11:22:32

10 Illinois State Implementation Plan during periods

11:22:34

11 of startup, malfunction and breakdown, subject to

11:22:37

12 the terms and conditions set forth in conditions

11:22:39

13 7.1.3(b), bravo, and (c), cat, of the permit.

11:22:42

14 MR. ARMSTRONG: Question number three,

11:22:55

15 I'll skip to that one. You have previously

11:22:56

16 stated that opacity exceedances still occur when

11:22:59

17 using a longer averaging period.

11:23:02

18 That's a reference to Midwest

11:23:05

19 Generation's responses to questions received at

11:23:07

20 hearing at page four from March 1st, 2023. How

11:23:09

21 does a longer averaging period address the

11:23:16

22 opacity standard exceedances at issue?

11:23:18

23 MS. SHEALEY: To clarify, are you

11:23:22

24 referring to the following statements from page

11:23:23

1 four of Midwest Generation's March 1st, 2023 11:23:25
2 responses to questions received at hearing? 11:23:28
3 Quote, notably these are just two examples of 11:23:32
4 what -- of the need for a longer averaging 11:23:36
5 period. 11:23:40
6 Excess opacity events may last longer or 11:23:41
7 result in higher opacity, thus creating the need 11:23:44
8 for a proposed alternative averaging period, end 11:23:47
9 quote. 11:23:50
10 MR. ARMSTRONG: Yes. 11:23:52
11 MS. SHEALEY: And can you also clarify 11:23:54
12 what you mean in reference to the opacity 11:23:56
13 exceedances at issue? Opacity standard 11:23:59
14 exceedances at issue. 11:24:04
15 MR. ARMSTRONG: The opacity standard 11:24:05
16 exceedances that Midwest Generation has reported 11:24:07
17 at its Powerton station. 11:24:16
18 MS. SHEALEY: So the exceedances in -- 11:24:47
19 that occur -- are the opacity and we can't do 11:24:50
20 anything about those. In the future what we 11:24:53
21 meant on page four of the March 1st responses and 11:24:58
22 in supplement to that response -- and in our 11:25:03
23 supplement to that response -- was that the 11:25:06
24 examples Midwest Generation provided were just 11:25:08

1 that, examples of actual monitoring data 11:25:11
2 supporting the need for a proposed averaging 11:25:14
3 period in the Joint Proposal. 11:25:17

4 MR. ARMSTRONG: Okay. I'll move to 11:25:29
5 question four. I'm sorry. I'll move to question 11:25:30
6 five. Has Midwest Generation considered 11:25:33
7 utilizing baghouses or other pollution control 11:25:41
8 technologies at the Powerton plant to avoid 11:25:44
9 opacity exceedances? 11:25:48

10 If so, why have you determined not to 11:25:50
11 install additional pollution controls at the 11:25:52
12 Powerton plant? 11:25:52

13 MS. SHEALEY: As I explained in my direct 11:25:56
14 declaration in support of Midwest Generation's 11:25:58
15 Statement of Reasons, which I incorporated into 11:26:00
16 my pre-filed testimony in the sub docket, Midwest 11:26:03
17 Generation does not believe it can take any steps 11:26:08
18 through installation or upgrading of pollution 11:26:11
19 controls or changing operating practices that 11:26:14
20 would eliminate the risk of opacity exceedance 11:26:16
21 storm periods of startup, malfunction and 11:26:19
22 breakdown. 11:26:20

23 My declaration explains all the steps 11:26:21
24 Midwest Generation has always taken -- has 11:26:24

1 already taken -- pursuant to a May 10th, 2018 11:26:27
2 Federal Consent Decree such as upgrading its 11:26:33
3 ESPs, electrostatic precipitators, and setting an 11:26:36
4 alarm to trigger at 25 percent opacity as a six 11:26:38
5 minute average to alert operational personnel to 11:26:42
6 take appropriate action to minimize the 11:26:45
7 likelihood of an exceedance of a 30 percent 11:26:48
8 opacity limit. 11:26:48

9 Notwithstanding that Midwest Generation's 11:26:53
10 rigorous implemation -- implementation -- of the 11:26:56
11 Consent Decree requirements, the Powerton coal 11:26:57
12 fired boilers still experience occasional 11:26:59
13 unavoidable opacity exceedances resulting from 11:27:03
14 startup, malfunctions, or breakdowns. 11:27:04

15 As further explained in my declaration, 11:27:07
16 installation and operation of fabric filter 11:27:09
17 baghouses might have the potential to reduce 11:27:12
18 opacity to an extent; however, Midwest Generation 11:27:15
19 does not believe the installation of baghouses 11:27:19
20 would eliminate the risk of opacity exceedances 11:27:22
21 during SMB events, and so installation of 11:27:25
22 baghouses would not oblivate the need -- obviate 11:27:28
23 the need -- for the relief Midwest Generation is 11:27:30
24 requesting through the Joint Proposal. Moreover, 11:27:33

1 Midwest Generation believes it would take 11:27:37
2 approximately three years to design, procure and 11:27:39
3 install baghouses. Midwest Generation currently 11:27:41
4 plans to cease operating and retire the Powerton 11:27:45
5 station coal fired boilers on or before December 11:27:47
6 31st, 2028. 11:27:50

7 The tremendous cost of installing 11:27:54
8 baghouses cannot be justified given the limited 11:27:55
9 years remaining prior to the retirement of these 11:27:59
10 boilers and a limited further control improvement 11:28:01
11 that the baghouses may provide, if any, compared 11:28:05
12 to the controls in operational practices 11:28:07
13 specified in the Consent Decree. 11:28:10

14 Finally, I want to emphasize that the 11:28:15
15 Consent Decree was - as agreed to by the State of 11:28:17
16 Illinois, United States and the organization 11:28:20
17 Citizens Against Ruining the Environment -- does 11:28:25
18 not require the installation of baghousees to 11:28:25
19 avoid exceedances of the opacity standard. 11:28:28

20 MR. ARMSTRONG: And what analysis 11:28:34
21 underlie Midwest Generation's conclusion that 11:28:36
22 installation of baghouses at Powerton would not 11:28:39
23 eliminate opacity exceedances? 11:28:43

24 MS. SHEALEY: I'm sorry, could you 11:29:26

1 please --

11:29:29

2 MR. ARMSTRONG: What analyses underlie

11:29:30

3 Midwest Generation's conclusion that installation

11:29:32

4 of baghouses at the Powerton facility would not

11:29:35

5 eliminate opacity exceedances?

11:29:40

6 MS. SHEALEY: We don't have specific

11:29:42

7 experience with baghouse ESPs combinations, but

11:29:44

8 we relied on the analysis done for Baldwin plant

11:29:48

9 and the Statement of Reasons.

11:29:53

10 MR. ARMSTRONG: Okay. I can skip number

11:29:54

11 six. Question seven. And I'm referring to in

11:30:04

12 this question to include good engineering

11:30:23

13 practices referenced in the proposed alternative

11:30:25

14 limitation.

11:30:29

15 How, if at all, would these work

11:30:32

16 practices measurably impact elevated opacity

11:30:34

17 levels during startup, shutdown and malfunction

11:30:38

18 events?

11:30:41

19 MS. SHEALEY: Sharene Shealey, Midwest

11:30:43

20 Generation. The work practices will be codified

11:30:44

21 requirements. Midwest Generation already

11:30:46

22 operates its boilers in a manner that would

11:30:49

23 comply with these parameters; thus we do not

11:30:49

24 anticipate any additional increase in opacity

11:30:55

1 levels during startup, malfunction or breakdown 11:30:56
2 events. Please also note that the Joint Proposal 11:30:59
3 does not address shutdown events except as it's 11:31:01
4 related to breakdowns. 11:31:05
5 MR. ARMSTRONG: Question number eight. 11:31:10
6 The Joint Proposal Statement of Reasons asserts 11:31:11
7 that, quote, none of the affected units is 11:31:14
8 located in an area designated as an EJ area. 11:31:17
9 That's from the Statement of Reasons at 40. 11:31:25
10 Are you aware that the Illinois 11:31:29
11 Environmental Protection Agency's EJ Start tool 11:31:32
12 currently shows that Powerton is located in an EJ 11:31:34
13 area? 11:31:37
14 MS. SHEALEY: I'm sorry. Sharene 11:31:54
15 Shealey, Midwest Generation. Shortly before 11:31:56
16 filing the Statement of Reasons, Midwest 11:31:58
17 Generation reviewed IEPA's Start tool and 11:32:01
18 confirmed that at that time Powerton was outside 11:32:04
19 of any environmental justice area. 11:32:06
20 Specifically, the stack serving 11:32:11
21 Powerton's coal fired boilers was more than one 11:32:13
22 mile from the nearest EJ area. On August 1st of 11:32:15
23 2023, just days before filing the Statement of 11:32:19
24 Reasons, IEP updated the EJ Start tool based on 11:32:23

1 2022 data. Midwest Generation was unaware of 11:32:26
2 that update at the time it filed its Statement of 11:32:29
3 Reasons. Using the 2022 data, the Powerton stack 11:32:33
4 is located within a buffer area for an EJ area 11:32:37
5 based on low income. 11:32:40

6 MR. ARMSTRONG: Question number nine. 11:32:44
7 Has Midwest Generation analyzed how the EJ area 11:32:45
8 in which Powerton is located will be impacted by 11:32:50
9 the Joint Proposal? 11:32:55

10 MR. SAWULA: I guess, if I may ask a 11:33:05
11 question of clarification, to ensure that we're 11:33:06
12 all using the term EJ area in the same way, could 11:33:09
13 you just define for us what you mean by, you 11:33:13
14 know, which areas from the EJ Start tool you're 11:33:15
15 referring to as qualifying as an EJ area? 11:33:18

16 MR. ARMSTRONG: So the Illinois EPA EJ 11:33:21
17 Start tool uses two different metrics to 11:33:24
18 determine whether a specific area should be 11:33:27
19 considered an area of environmental justice 11:33:31
20 concern. 11:33:33

21 And then for any area that is flagged as 11:33:35
22 being in one of those parameters there's also a 11:33:38
23 buffer zone around that specific area. So when I 11:33:40
24 refer to EJ area I refer to any geographic area 11:33:43

1 identified by Illinois EPA as being an area of 11:33:47
2 environmental justice concern on the EJ Starting 11:33:53
3 map. 11:33:55

4 MR. SAWULA: And do you include the 11:33:56
5 buffer area as -- as -- when you use the term EJ 11:33:58
6 area do you -- do you use that term to include 11:34:01
7 the buffer area or just the area that's 11:34:04
8 designated based on low income or minority 11:34:07
9 population? 11:34:09

10 MR. ARMSTRONG: Consistent with -- 11:34:10
11 consistent with Illinois EPA's approach, we -- I 11:34:11
12 am including the buffer zone. 11:34:13

13 MR. SAWULA: Okay. Okay. And so for the 11:34:15
14 record then our answer will -- or Midwest 11:34:17
15 Generation's answer -- will similarly use the 11:34:20
16 term to include the buffer zone. 11:34:23

17 MR. ARMSTRONG: Okay. 11:34:25

18 MS. SHEALEY: Yeah. Sharene Shealey, 11:34:25
19 Midwest Gen. Because it's -- my whole 11:34:32
20 understanding -- is that the station itself is 11:34:32
21 not within the EJ area, it's within the buffer 11:34:34
22 zone. That -- so just -- that's where I was 11:34:37
23 getting confused, so forgive me. 11:34:39

24 MR. ARMSTRONG: No problem. 11:34:41

1	MS. SHEALEY: How is this -- okay. Could	11:34:44
2	you -- after all of that could you please reask	11:34:47
3	your question?	11:34:49
4	MR. ARMSTRONG: Yes, no problem. So	11:34:50
5	referring to the EJ area as the geographic area	11:34:52
6	that is identified by IEPA's EJ Start tool as an	11:34:57
7	area of environmental justice concern, has	11:35:03
8	Midwest Generation analyzed how the EJ area in	11:35:06
9	proximity to the Powerton plant will be impacted	11:35:13
10	by the Joint Proposal?	11:35:16
11	MS. SHEALEY: Yes. Sharene Shealey,	11:35:19
12	Midwest Generation. Yes. As indicated in the	11:35:22
13	Statement of Reasons, including on page 40 and as	11:35:24
14	demonstrated in a Technical Support Document, the	11:35:27
15	Joint Proposal will not result in any impacts to	11:35:30
16	human health or the environment anywhere, and so	11:35:33
17	it will not have any disproportionate impacts or	11:35:36
18	create any EJ environmental justice concern for	11:35:39
19	Illinois Environmental Justice communities.	11:35:42
20	That conclusion remains the same	11:35:46
21	irrespective of whether Powerton is inside or	11:35:51
22	outside the EJ area.	11:35:54
23	MR. ARMSTRONG: Thank you. That's all	11:35:55
24	the questions we have.	11:35:57

1 HEARING OFFICER: And just to clarify, 11:35:58
2 you're not waiting for the witness and just 11:35:59
3 having them answer in a comment later on? 11:36:01
4 MR. ARMSTRONG: Yes. Thank you. 11:36:03
5 HEARING OFFICER: Okay. All right. Are 11:36:04
6 there any other questions from any other 11:36:05
7 participants? Seeing none, we'll go to the 11:36:06
8 Board's questions. 11:36:09
9 CROSS EXAMINATION BY 11:36:09
10 MR. RAO: 11:36:09
11 MR. RAO: I have one question. It's 11:36:10
12 question number 12 on the Board's Hearing Officer 11:36:14
13 order. On page 22 of the Statement of Reasons 11:36:16
14 refers to Miss Vodopivec's pre-filed testimony 11:36:21
15 that indicates Dynegy's affected units are 11:36:25
16 controlled by both ESPs and baghouses. 11:36:28
17 (A) Please clarify if all five Dynegy 11:36:33
18 boilers in Baldwin, Kincaid and Newton plants 11:36:36
19 which are covered by the proposed alternative 11:36:41
20 emission limits are equipped with both ESPs and 11:36:44
21 baghouses? 11:36:46
22 MS. VODOPIVEC: Cynthia Vodopivec from 11:36:48
23 Dynegy. So the only two coal fired boilers 11:36:49
24 equipped with both ESP and baghouses are the two 11:36:53

1 coal fired boilers at Baldwin. The coal fired 11:36:56
2 boilers at Kincaid and Newton are equipped with 11:37:00
3 ESPs but not baghouses. 11:37:02

4 MR. RAO: Okay. 12B. Comment on whether 11:37:03
5 the Dynegy proposal could be further narrowed by 11:37:07
6 limiting the proposal alternative emission 11:37:10
7 standards to apply to boilers equipped with only 11:37:12
8 ESPs. 11:37:16

9 Alternatively, could the boilers equipped 11:37:20
10 with both ESPs and baghouses have a shorter 11:37:21
11 averaging time than the proposed three hours? 11:37:24

12 MR. SAWULA: Just a quick question. Is 11:37:27
13 that question directed to Dynegy or to both 11:37:28
14 companies or -- 11:37:31

15 MR. RAO: I would say Dynegy because I 11:37:33
16 don't think Midwest Generation -- yeah. 11:37:36

17 MR. SAWULA: Thank you. 11:37:39

18 MS. VODOPIVEC: Cynthia Vodopivec from 11:37:42
19 Dynegy. So Dynegy needs an alternative emission 11:37:42
20 standard for the Baldwin coal fired boilers 11:37:45
21 because it cannot assure compliance with a 30 11:37:48
22 percent opacity standard on a six-minute basis 11:37:51
23 100 percent of the time during periods of SMB. 11:37:53

24 Dynegy agrees that the risk of 11:37:58

1 exceedances is lower at Baldwin than at coal 11:38:01
2 fired boulders not equipped with both an ESP and 11:38:03
3 baghouse. 11:38:03

4 Consequently, while Dynegy believes that 11:38:03
5 the proposed three hour standard is justified for 11:38:09
6 Baldwin coal fired boilers, it is willing to 11:38:12
7 accept a one hour -- a one hour averaging period 11:38:14
8 -- for the Baldwin boilers. 11:38:19

9 This would increase the risk of 11:38:21
10 non-compliance due to unavoidable opacity during 11:38:23
11 SMB events, but would not result in any 11:38:27
12 difference in opacity levels as the company has 11:38:30
13 already taken numerous steps to minimize opacity 11:38:32
14 and there are no further steps involved. 11:38:35

15 MR. RAO: Will you be able to submit 11:38:42
16 changes to your Joint Proposal? 11:38:42

17 MR. SAWULA: Yes, we would be happy to do 11:38:47
18 that. 11:38:49

19 MR. RAO: Thank you. 11:38:49

20 HEARING OFFICER: Okay. Any further 11:38:50
21 questions from the Board members? Okay. Then 11:38:51
22 just one last thing again. If you could please 11:38:54
23 respond here today or in a written public comment 11:38:57
24 to JCAR staff changes to and questions to the 11:39:00

1	rule text in public comment number two as well as	11:39:03
2	to the Board's suggested changes attached to its	11:39:05
3	pre-filed questions.	11:39:05
4	MR. SAWULA: We would be happy to. And I	11:39:09
5	have one follow-up question. For the proposed	11:39:10
6	changes regarding the one-hour proposal for	11:39:13
7	Baldwin, is that something you would like to see	11:39:16
8	in the Company's joint comment at the end of the	11:39:19
9	process for the sub docket, or is that something	11:39:22
10	you'd like to see sooner after this first	11:39:25
11	hearing?	11:39:29
12	MR. RAO: If you can do it sooner it will	11:39:30
13	be helpful.	11:39:32
14	MR. SAWULA: Okay. We will do so. Thank	11:39:33
15	you.	11:39:33
16	HEARING OFFICER: Okay. Thank you so	11:39:36
17	much. All right. So we will move on to public	11:39:40
18	comments. I did not see any names on the sign-up	11:39:43
19	sheet but I just want to double-check if there's	11:39:49
20	anyone here who would like to provide a public	11:39:51
21	comment?	11:39:54
22	Okay. Seeing none, I'd like to go off	11:39:56
23	the record for just a second.	11:39:58
24	(Discussion off the record)	11:39:58

1	HEARING OFFICER: So we'll go back on the	11:40:45
2	record to adjourn then. Copies of the transcript	11:40:46
3	of today's hearing are expected to be available	11:40:50
4	no later than Tuesday, October 3rd.	11:40:52
5	When the Board receives the transcript we	11:40:55
6	will promptly post it to COOL from which it can	11:40:57
7	be viewed and printed.	11:40:59
8	The second hearing is scheduled on	11:41:01
9	Wednesday, November 1st, 2023, beginning at 9:00	11:41:03
10	a.m. at the Michael A. Bilandic Building in	11:41:06
11	Chicago.	11:41:10
12	The deadline to pre-file testimony for	11:41:10
13	the second hearing is October 18th, 2023, and to	11:41:12
14	pre-file questions is Wednesday, October 25th,	11:41:16
15	2023. Before the second hearing adjourns we will	11:41:20
16	set a post-hearing comment deadline.	11:41:23
17	Are there any other matters that need to	11:41:25
18	be addressed at this time? Yes?	11:41:27
19	MR. SAWULA: Can I ask a follow-up	11:41:30
20	question off the record on the second hearing?	11:41:31
21	HEARING OFFICER: Yes. We'll go off the	11:41:34
22	record, please.	11:41:35
23	(Discussion off the record)	11:41:35
24	HEARING OFFICER: We'll go back on the	11:42:02

1 record. Okay. I would like to thank everyone
2 for participating today, and this first hearing
3 is adjourned.

11:42:03

11:42:06

11:42:08

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(Hearing end time: 11:42 a.m.)

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CERTIFICATE OF REPORTER

I, Kathy L. Johnson, a Certified Court Reporter, and Notary Public within and for the State of Illinois, DO HEREBY CERTIFY that the testimony of all witnesses in the foregoing hearing were duly sworn to testify to the truth and nothing but the truth; that the testimony of said witnesses was taken by stenographic means by me to the best of my ability and thereafter reduced to print under my direction.

I further certify that I am neither attorney nor counsel for, nor related, nor employed by any of the parties to the action in which this deposition was taken; further, that I am not a relative or employee of any attorney or counsel employed by the parties hereto, or financially interested in this action.

-----*Kathy Johnson*-----
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