

IN THE PUBLIC UTILITIES COMMISSION OF OHIO

- - -

In the Matter of the :
Application of Ohio Edison:
Company, The Cleveland :
Electric Illuminating :
Company, and The Toledo :
Edison Company for : Case No. 14-1297-EL-SSO
Authority to Provide for :
a Standard Service Offer :
Pursuant to R.C. 4928.143 :
in the Form of an Electric:
Security Plan. :

- - -

DEPOSITION

of Paul A. Harden, taken before me, Karen Sue Gibson,
a Notary Public in and for the State of Ohio, at the
offices of FirstEnergy Corporation, 76 South Main
Street, Akron, Ohio, on Friday, January 16, 2015, at
8:30 a.m.

- - -

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- - -

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On behalf of the Sierra Club.

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On behalf of the Ohio Partners for
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McNees, Wallace & Nurick LLC
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On behalf of the Industrial Energy Users
of Ohio.

- - -

APPEARANCES: (Continued)

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On behalf of the Environmental Law &
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On behalf of the Residential Consumers of
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Electric Illuminating Company, and The
Toledo Edison Company.

FirstEnergy Corp.
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On behalf of FirstEnergy Services.

Bricker & Eckler, LLP
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On behalf of the Northeast Ohio Public
Energy Council.

1 ALSO PRESENT:

2 Mr. Hisham Choueiki, PUCO Staff (via
3 speakerphone)
4 Mr. Greg Slone, OCC (via speakerphone).
5 Attorney Examiner Gregory Price (via
6 speakerphone)
7 Law Clerk Megan Addison (via Speakerphone).
8 - - -

INDEX

- - -

Witness	Page
Cross-Examination by Mr. Fisk	8
Cross-Examination by Mr. Olier	153
Cross-Examination by Mr. Darr	160
Cross-Examination by Mr. Schuler	164
Cross-Examination by Ms. Fleisher	182
Cross-Examination by Ms. Bojko	189
Cross-Examination (Continued) by Mr. Fisk	232
Cross-Examination (Continued) by Mr. Darr	287
Cross-Examination (Continued) by Mr. Schuler	289
Cross-Examination (Continued) by Ms. Bojko	294

- - -

Deposition Exhibit	Identified
1 Subpoena to FirstEnergy Solutions	56
2 Response to Sierra Club Set 4-INT-109	96
3 Term Sheet	118
4 Decommissioning Cost Analysis for the Davis-Besse Nuclear Power Station	150
5 Response to Sierra Club Set 1-INT-9 (Conf.)	233
6 Sierra Club Set 1-INT-9 Attachment 1 (Conf.)	233
7 Sierra Club Set 1-INT-10 (Conf.)	239
8 Sierra Club Set 1-INT-10 Attachment 1 (Conf.)	239
9 Sierra Club Set 1-INT-9 Attachment 4 (Conf.)	254
10 Sierra Club Set 1-INT-10 Attachment 2 (Conf.)	260
11 Sierra Club 1-RPD-49 Attachment 1 (Conf.)	273

INDEX (Continued)

- - -

Deposition Exhibit	Identified
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12 Sierra Club Set 4-INT-103 (Conf.)	279
--------------------------------------	-----

- - -

OCC Exhibit	Identified
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1 Response to OCC Set 11-INT-231	173
----------------------------------	-----

2 Response to OCC Set 11-INT-229	177
----------------------------------	-----

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1 Friday Morning Session,
2 January 16, 2015.

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4 MR. LANG: Let's go on the record. This
5 is Jim Lang from FirstEnergy representing the
6 companies. I am here with the Witness Paul Harden
7 and also have Jim Burk and Brian Knipe in the room.
8 Would you guys.

9 MR. FISK: Shannon Fisk on behalf of
10 Sierra Club.

11 MR. SOULES: Michael Soules on behalf of
12 the Sierra Club.

13 MR. LANG: Can folks on the phone
14 introduce themselves.

15 MR. OLIKER: This is Joe Oliker on behalf
16 of IGS.

17 MR. DARR: Frank Darr on behalf of
18 Industrial Energy Users.

19 MS. MOONEY: This is Colleen Mooney on
20 behalf of Ohio Partners for Affordable Energy.

21 MR. SCHULER: This is Mike Schuler with
22 the Office of the Ohio Consumers' Counsel. I also
23 have Greg Slone with me.

24 MS. FLEISHER: Madeline Fleisher with the

1 Environmental Law & Policy Center.

2 MS. BOJKO: Good morning. Kim Bojko with
3 the Ohio Manufacturers' Association.

4 MR. LANG: Smaller group today.

5 MR. FISK: It's Friday.

6 MR. LANG: It's Friday. A few people
7 took vacation.

8 Why don't we get started.

9 MR. FISK: Do you want to swear the
10 witness in.

11 - - -

12 PAUL A. HARDEN

13 being by me first duly sworn, as hereinafter
14 certified, deposes and says as follows:

15 CROSS-EXAMINATION

16 By Mr. Fisk:

17 Q. Good morning, Mr. Harden.

18 A. Good morning.

19 Q. How are you doing today?

20 A. Fantastic.

21 Q. Excellent, excellent. Could you just
22 state your complete name for the record.

23 A. Paul Andrew Harden.

24 Q. And what's your business address?

1 A. I think it's -- I can't remember the
2 street number.

3 Q. It's on page 1 of your testimony.

4 A. 341 White Pond Drive in Akron.

5 Q. Excellent.

6 A. I couldn't remember that number.

7 Q. And who are you employed by?

8 A. FirstEnergy Nuclear Operating Company.

9 Q. Okay. And if I refer to that as FENOC,
10 do you understand what I mean?

11 A. Yes.

12 Q. Okay. And what is your title at FENOC?

13 A. Senior vice president fleet engineering.

14 Q. Okay. And what are your job duties as
15 senior vice president of fleet engineering?

16 A. I'm responsible for all of the
17 engineering functions on the -- for the nuclear
18 operating plants, and I'm responsible for the fleet
19 engineering functions, subject matter experts for
20 our -- the rest of our generating plants.

21 Q. Okay. So that would include the Sammis
22 plant?

23 A. Yes.

24 Q. Okay. Do you have any responsibilities

1 with regard to the OVEC plants?

2 A. No.

3 Q. Okay. And with regard to the Sammis
4 plant, when you say you are responsible for engineer
5 functions, what does that involve?

6 A. I have fleet engineers that are subject
7 matter experts in a number of areas, and those
8 subject matter experts get called upon to provide
9 support when needed at any of our operating plants.

10 Q. Okay. And what sort of subjects are
11 those?

12 A. Mostly components like turbines, you
13 know, there's flow accelerated corrosion for piping
14 experts, vibration experts, those types of functions.

15 Q. Okay. And you -- do you oversee their
16 work or?

17 A. They report up to me.

18 Q. Okay. Directly or is there --

19 A. No. There's several layers.

20 Q. Okay, okay. How many people report
21 directly to you?

22 A. Directly to me five.

23 Q. Okay. And do any of those people work on
24 the Sammis plant?

1 A. Not directly.

2 Q. Not directly, okay. How far down the
3 reporting chain do you get -- do you have to go to
4 get to somebody that works on the Sammis plant?

5 A. Three levels.

6 Q. Three levels, okay. Okay. Could you
7 walk me through what those levels are.

8 A. Yes. Reporting to me is a director of
9 engineering --

10 Q. Okay.

11 A. -- that has responsibility for the fleet
12 subject matter experts. Reporting to him will be a
13 manager, and actually there's two managers that
14 report to him, and underneath those two managers are
15 the engineers that would be called upon to provide
16 the direct to support.

17 Q. And who is the director of engineering?

18 A. Rich Bologna.

19 Q. Okay. And who do you report to?

20 A. I report to Pete Sena.

21 Q. And who is that?

22 A. The chief nuclear officer of FENOC.

23 Q. Okay. Do you know who he reports to?

24 A. He reports to Jim Lash.

1 Q. And who is Mr. Lash?

2 A. He is the president of generation.

3 Q. At which -- which FirstEnergy company?

4 A. For FirstEnergy Generation.

5 Q. Oh, okay, okay. And so you said you're
6 responsible, I guess, essentially for the engineering
7 functions at all of FirstEnergy's plants; is that
8 right?

9 A. No.

10 Q. No.

11 A. I'm responsible for all of the
12 engineering functions at the nuclear operating plants
13 and the fleet engineering functions for the rest of
14 our generating plants.

15 Q. Okay. And what -- what's the distinction
16 there between fleet?

17 A. There are some engineers that are
18 permanently stationed at the site.

19 Q. Okay.

20 A. And those report to the site management
21 which is not under me and there are engineers that
22 support all of the plants that aren't specific to a
23 plant that report to me or up through me.

24 Q. Okay. So would the Sammis plant have

1 permanent engineers on-site?

2 A. Yes, they would have some.

3 Q. Okay. And those people don't report to
4 you.

5 A. That is correct.

6 Q. Do you ever communicate with those
7 people?

8 A. Yes.

9 Q. Okay, okay. And do you know just rough
10 percentage how much of your time you spend overseeing
11 the engineering -- the fleet engineering functions
12 for fossil-fueled units versus your work on the
13 nuclear side?

14 A. It would vary on any given day.

15 Q. Okay. Like on an average year is most of
16 your time on nuclear or is it pretty evenly divided?

17 A. It's tough to say. It varies. It
18 depends on what's going on in a particular year in a
19 particular month either on the nuclear operating
20 plant side or fossil operating plant side.

21 Q. Okay, okay. And do you know why your
22 responsibility for fleet engineering for the
23 fossil-fueled plants, why is that work housed in
24 FENOC?

1 A. I can't answer that. I don't know.

2 Q. Okay.

3 A. That's the way we set up our
4 organization.

5 Q. Okay, okay. Does FENOC have any other
6 responsibility for fossil-fueled generation? Do you
7 know?

8 A. There are other individuals, yes.

9 Q. Okay. And do you know what they do for
10 the fossil fuel?

11 A. I don't know that I could be all
12 inclusive. I can name one example. There's a fleet
13 director of training that reports through the FENOC
14 organization who also supports staff that support the
15 fossil plants.

16 Q. Okay, okay. And have you ever personally
17 visited the Sammis plant?

18 A. Yes.

19 Q. Okay. When was the most recent time?

20 A. I couldn't give you a specific date but
21 within the last few months.

22 Q. Okay. Since August of 2014?

23 A. Yes, I believe so.

24 Q. Okay. And before August of 2014, had you

1 ever visited the Sammis plant?

2 A. Yes.

3 Q. How often do you visit the Sammis plant?

4 A. I couldn't say. Probably a couple of
5 times a year.

6 Q. Okay. Great. Have you ever visited any
7 of the OVEC plants?

8 A. No.

9 Q. And how about Davis-Besse?

10 A. Yes.

11 Q. How frequently do you go there?

12 A. About once a month.

13 Q. Once a month, okay, great. And have you
14 ever been deposed before?

15 A. Yes.

16 Q. Okay. And in what context?

17 A. In regulatory matters on the nuclear side
18 in dealings with the Nuclear Regulatory Commission.

19 Q. Okay. Have you been deposed in
20 proceedings before the Public Utilities Commission of
21 Ohio?

22 A. No.

23 Q. Okay. For the Nuclear Regulatory
24 Commission, what proceedings were those?

1 A. I don't remember specifically. I don't
2 remember specifically.

3 Q. Do you remember how many times you have
4 been deposed?

5 A. Once that I can remember.

6 Q. Okay. And do you know approximately
7 timeframe when that was?

8 A. In the -- I mean early 2000, 2005
9 timeframe.

10 Q. So it was before you came to FENOC?

11 A. Yes.

12 Q. And you weren't then employed by any
13 FirstEnergy company?

14 A. No.

15 Q. Okay. Who were you employed with then?

16 A. Nuclear Management Company.

17 Q. And was that -- so was that part of a
18 utility or?

19 A. No.

20 Q. No, okay. And have you ever been
21 cross-examined in a hearing?

22 A. No.

23 Q. Have you ever submitted written testimony
24 in a court proceeding?

1 A. Not that I remember.

2 Q. Okay. And how about have you ever
3 submitted written testimony in a Public Utilities
4 Commission proceeding?

5 A. No.

6 Q. Okay. And how about in a Nuclear
7 Regulatory Commission proceeding?

8 A. I can't remember.

9 Q. Okay. What would you need to do to
10 recall if you had?

11 A. Well, I don't remember ever submitting
12 one, but I can't state -- state for certain that I
13 never have.

14 Q. Okay. Fair enough.

15 A. Not once that I remember.

16 MR. FISK: Okay. Did someone join or a
17 few people join?

18 MR. CHOUYEIKI: Good morning. This is
19 Hisham Choueiki of the Ohio staff.

20 MR. FISK: Anybody else join that hadn't
21 already announced themselves?

22 Okay. Fair enough.

23 Q. Okay. So on page 1 of your testimony,
24 you list your educational background, professional

1 qualifications, and employment experience; is that
2 right?

3 A. Yes.

4 Q. If we could just walk through that. You
5 say you have a Bachelor of Science degree nuclear
6 engineering; is that right?

7 A. Yes.

8 Q. When did you receive that degree?

9 A. 1990.

10 Q. Great. Okay. And then a Master's in
11 business administration degree. When did you receive
12 that?

13 A. I believe that's 2000.

14 Q. 2000, okay. And for your Bachelor of
15 Science degree, did any of that education involve
16 coal-fired power plants?

17 A. Yes.

18 Q. Okay. And what sort of education did you
19 get on coal-fired power plants?

20 A. There were courses that covered every
21 type of power plant.

22 Q. Okay. How many courses?

23 A. Oh, I don't remember.

24 Q. Even like a rough? Are we talking 2 or

1 10?

2 A. I am going to guess it was probably
3 between 5 and 10.

4 Q. 5 and 10, okay. And what sort of topics
5 about coal-fired power plants would have been
6 covered?

7 A. Both combustion -- combustion theory,
8 those types of things as well as electrical and
9 distribution theory, those types of applications.

10 Q. Okay, okay. And did any of that
11 education as part of the Bachelor's of Science degree
12 cover pollution controls for coal-fired power plants?

13 A. Not that I remember.

14 Q. Okay, okay. And how about environmental
15 compliance?

16 A. Not that I remember.

17 Q. Okay. And how about your Master's in
18 business administration, did any of that education
19 involve coal-fired power plants?

20 A. No.

21 Q. And how about pollution controls?

22 A. No.

23 Q. And how about environmental compliance?

24 A. No.

1 Q. Okay. And have you had any other formal
2 training?

3 A. Yes.

4 Q. Okay. And what is that?

5 A. I completed most of the course work
6 towards a Master's degree in mechanical engineering.

7 Q. Okay. Where did you do that?

8 A. Western Michigan University.

9 Q. Okay. And when was that?

10 A. In the 1990s at some timeframe.

11 Q. Okay. And when you say most of the
12 course work, how close were you to getting a degree?

13 A. It was either one or two courses shy of a
14 Master's degree.

15 Q. Okay. And why did you not complete it?

16 A. I was offered a career opportunity that
17 conflicted with it.

18 Q. Okay.

19 A. Conflicted with the ability to attend the
20 courses.

21 Q. Okay. And what career opportunity was
22 that?

23 A. To go into training for a senior reactor
24 operator license.

1 Q. What is -- what is that?

2 A. It is a license issued by the Nuclear
3 Regulatory Commission to actually oversee and operate
4 the controls of a nuclear power plant.

5 Q. Okay. And did you complete that --

6 A. Yes.

7 Q. -- process? How long of an education was
8 that?

9 A. It's between a year and a half and two
10 years.

11 Q. Okay. And that was again in the 1990s
12 sometime?

13 A. Yes.

14 Q. Okay. And did any of that education
15 involve coal-fired power plants?

16 A. Not specifically.

17 Q. Okay. Generally?

18 A. It covered details on the theory and the
19 operation of many, many types of plant components
20 that are -- that are used in coal-fired plants as
21 well as nuclear plants.

22 Q. Okay, okay. Any other way that it's
23 relevant to coal plants?

24 A. No.

1 Q. Okay. And did any of that reactor -- did
2 you call it a reactor operating license?

3 A. Senior reactor operating license.

4 Q. Did any of that education involve
5 pollution controls for coal-fired power plants?

6 A. No.

7 Q. And how about environmental compliance?

8 A. No.

9 Q. Okay. And your course work on mechanical
10 engineering, did any of that involve coal-fired power
11 plants?

12 A. Yes.

13 Q. Okay. And what sort of education on that
14 did you receive?

15 A. I was specializing in combustion turbine
16 design.

17 Q. Okay. And what is that -- what is that
18 generally?

19 A. Design of turbines and turbine blades for
20 power plants, any type of power plants, gas-powered
21 plants, coal-powered power plants, nuclear plants.

22 Q. Okay, okay. And did any of your
23 mechanical engineering education involve pollution
24 controls?

1 A. I believe there was a course on pollution
2 controls.

3 Q. Okay. Just one course?

4 A. That's all I can remember.

5 Q. Okay. And what generally did that
6 involve?

7 A. The different types of control
8 technologies.

9 Q. Okay. For coal plants.

10 A. For power plants.

11 Q. Okay. And did any of your mechanical
12 engineering course work involve environmental
13 compliance issues?

14 A. I believe there was some, not a specific
15 course but, content of courses that covered some
16 environmental areas.

17 Q. Okay. And do you recall if any of that
18 was environmental areas relative to coal-fired power
19 plants?

20 A. I am sure it was, but I don't remember
21 specifics.

22 Q. Okay. Have you had any other formal
23 training?

24 A. I've had many training courses throughout

1 the course of my career.

2 Q. Okay. Many, you are talking 20 or 50 or?

3 A. I am going to guess it's more than 50.

4 Q. Okay, okay. And are -- did any of those
5 involve coal-fired power plants?

6 A. I couldn't remember specifically.

7 Q. Okay. So you can't recall any that did
8 involve coal-fired power plants?

9 A. No, I can't.

10 Q. Okay. And did any of those courses
11 involve pollution controls?

12 A. I can't remember.

13 Q. Okay. And how many about environmental
14 compliance?

15 A. I can't remember.

16 Q. Okay. And I believe you state that you
17 are a registered professional engineer in Michigan;
18 is that right?

19 A. That's correct.

20 Q. Are you a registered professional
21 engineer in any other state?

22 A. No.

23 Q. And have you ever been disciplined or
24 anything as part of your license?

1 A. No.

2 Q. Okay. Do you have any other professional
3 licenses?

4 A. No.

5 Q. Okay. Was the senior reactor operator,
6 is that a license that you have or?

7 A. It was a license that I had. You have to
8 maintain that license, and once I changed positions I
9 no longer had a need to maintain it.

10 Q. Okay, okay. And you simply just -- you
11 just simply stopped maintaining it. It wasn't that
12 you were penalized or something --

13 A. That is correct.

14 Q. -- and had to drop it. Okay. And do you
15 have any professional certifications?

16 A. I don't think so.

17 Q. Okay.

18 A. I have a lot of education, so it's hard
19 to remember.

20 Q. Certainly, certainly. Okay. So you
21 believe -- so you list on your -- on page 1 of your
22 testimony that you -- you were a licensed senior
23 reactor operator at the Palisades nuclear plant; is
24 that right?

1 A. That is correct.

2 Q. When was that?

3 A. Does it say?

4 Q. It doesn't.

5 A. I was a licensed senior reactor operator
6 there sometime in the mid 1990s.

7 Q. Okay. All right. And was that when it
8 was owned by Consumers Energy?

9 A. Yes.

10 Q. Okay. And then on lines 16 to 18 of page
11 1 of your testimony, you say you also served as site
12 vice president, director of site operations, and
13 director of engineering at Palisades; is that right?

14 A. That's correct.

15 Q. Is that three separate positions, or is
16 that one position?

17 A. Those are three separate positions.

18 Q. Okay. All right. And how long were you
19 at Palisades?

20 A. It was 19 years.

21 Q. 19 years, okay. All right. And why did
22 you leave Palisades?

23 A. I left Palisades when it was sold.

24 Q. Okay. And while you were at Palisades,

1 did you have any responsible -- responsibility for
2 any fossil-fueled generating units?

3 A. No.

4 Q. Okay. And did you have any
5 responsibility for any pollution controls?

6 A. No.

7 Q. Okay. And how about any responsibility
8 for environmental compliance?

9 A. Yes.

10 Q. What responsibility did you have there?

11 A. Total responsibility for environmental
12 compliance as it related to the nuclear power plant.

13 Q. Okay. But not to any other generation
14 sources.

15 A. That is correct.

16 Q. Okay. And then you also list that you
17 worked at the Kewaunee plant; is that right?

18 A. Yes.

19 Q. When were you there?

20 A. I don't remember. It was sometime maybe
21 mid 2000, maybe 2005 timeframe, somewhere near there.

22 Q. Okay. Do you know how long you were
23 there?

24 A. Six to nine months.

1 Q. Okay. And you say you were the recovery
2 director; is that right?

3 A. Yes.

4 Q. And what does that mean?

5 A. The plant shut down after a -- after it
6 was discovered that it could not comply with some of
7 its design basis requirements, so I was assigned to
8 go to the plant to determine what needed to be done
9 to bring it back into compliance to conduct all those
10 activities in accordance with all the nuclear
11 regulatory requirements and get the plant to -- back
12 into a state where it could return to operation.

13 Q. Okay, okay. Great. And that effort
14 succeeded?

15 A. Yes.

16 Q. But that plant is now retired, right?

17 A. Yes.

18 Q. Okay. And why did you leave Kewaunee?

19 A. I was requested to go back to the
20 Palisades plant to become the site vice president.

21 Q. Okay. Kewaunee and Palisades were owned
22 by different people, right?

23 A. Yes.

24 Q. So the people at Palisades asked you to

1 come back basically?

2 A. No. They were operated by the same
3 company. They were owned by two different companies.

4 Q. Okay, okay. I understand. And who was
5 the operator?

6 A. Nuclear Management Company.

7 Q. Okay. And what is that?

8 A. Could you rephrase the question?

9 Q. I mean, is that -- so it's not a utility,
10 right?

11 A. No.

12 Q. Okay. So it's just a private company
13 that is --

14 A. It was an operating company that was
15 formed to operate multiple nuclear power plants that
16 had different owners.

17 Q. Okay, okay. And how long were you with
18 the Nuclear Management Company?

19 A. I think six years.

20 Q. Six years, okay. And those 6 years,
21 those overlap with your 19 years at Palisades?

22 A. Yes.

23 Q. Okay. And then you then went -- after
24 you left Kewaunee, you say you went back to

1 Palisades, right?

2 A. Yes.

3 Q. And when did you leave the Palisades the
4 second time?

5 A. When it was sold.

6 Q. Oh, right. Okay. And that's when you
7 then joined FENOC?

8 A. No. When -- that's when I became the
9 fleet vice president of projects and engineering of
10 Nuclear Management Company.

11 Q. Okay.

12 A. That's on line 15.

13 Q. There it is and that was what year?

14 A. I think it was 2007.

15 Q. Okay. And just taking a quick step back
16 when you were at Kewaunee, you didn't have any
17 responsibility for any coal-fired generating plants,
18 right?

19 A. No.

20 Q. Did you have any responsibility for
21 pollution controls?

22 A. No.

23 Q. Did you have any responsibility for
24 environmental compliance at any coal-fired plants?

1 A. No.

2 Q. Okay. And same when you were at Nuclear
3 Management Company, did you have any responsibility
4 for any coal-fired power plants?

5 A. No.

6 Q. And any responsibility for pollution
7 control?

8 A. No.

9 Q. And any responsibility for environmental
10 compliance of coal-fired power plants?

11 A. No.

12 Q. And when did you leave Nuclear Management
13 Company?

14 A. 2008.

15 Q. Okay. Is that when you joined FENOC?

16 A. Yes.

17 Q. All right. And you joined as a vice
18 president of nuclear support; is that right?

19 A. Yes.

20 Q. And what did that job involve?

21 A. I was responsible for most of the fleet
22 support functions for the nuclear plants.

23 Q. And what does that mean?

24 A. We have functional area managers for many

1 functions of the nuclear plants that are responsible
2 fleetwide and those -- those individuals reported up
3 to me.

4 Q. Okay. And that would have been -- that
5 would have included responsibility for Davis-Besse?

6 A. Yes.

7 Q. Okay. All right. But in that role you
8 didn't have any responsibility for any coal-fired
9 generation, correct?

10 A. Yes.

11 Q. That's correct?

12 A. Correct.

13 Q. Okay. And did you have any
14 responsibility for any pollution controls in that
15 job?

16 A. No.

17 Q. Okay. How about for environmental
18 compliance?

19 A. Yes.

20 Q. And none in nuclear plants? Did you have
21 any environmental responsibility for environmental
22 compliance at nonnuclear plants?

23 A. No.

24 Q. Okay. And then you moved over to the

1 Beaver Valley plant; is that right?

2 A. Yes.

3 Q. That's a nuclear plant?

4 A. Yes.

5 Q. Okay. And, again, while you were there
6 you didn't have any responsibility for any coal-fired
7 generating units?

8 A. No.

9 Q. And did you have any responsibility for
10 any pollution controls?

11 A. No.

12 Q. Okay. And did you have any
13 responsibility for environmental compliance at any
14 fossil-fueled generating units?

15 A. No.

16 Q. Okay, okay. So prior to your current
17 position, have we -- have we discussed all the jobs
18 you've had?

19 A. All the direct positions that I've held.

20 Q. Okay. I mean, not every single task
21 you've done.

22 A. That's correct.

23 Q. But all the positions you've held in the
24 energy industry.

1 A. Yes.

2 Q. Okay. So prior to your current job, am I
3 correct that you have not had any experience -- job
4 experience working with fossil-fueled generating
5 units?

6 A. No.

7 Q. Okay. What did I miss?

8 A. You asked if any of those positions had
9 responsibility. I have been asked many times in my
10 career to support fossil plants.

11 Q. Okay. And what -- what sort of work has
12 that involved?

13 A. It was different work on different
14 occasions and different requests.

15 Q. How frequently?

16 A. Some years maybe a couple of times a
17 year.

18 Q. Okay. And some years not at all?

19 A. Yes.

20 Q. Ever more than that?

21 A. Could you rephrase that?

22 Q. Have you ever -- were you ever asked to
23 do things on neu -- or coal plants more than a couple
24 of times a year?

1 A. Not that I remember.

2 Q. Okay. And have you ever asked -- before
3 your current position have you ever been asked to do
4 any work for the Sammis plant?

5 A. Yes.

6 Q. Okay. And what work?

7 A. To provide engineers to support
8 activities at the Sammis plant.

9 Q. Okay. To provide -- so you had engineers
10 that you assigned to work there.

11 A. That's correct. And I maintained
12 responsibility for those engineers.

13 Q. Okay. Were you involved in any of the
14 substantive work?

15 A. No.

16 Q. Okay. So have you -- before your current
17 position have you ever been involved in any
18 substantive work with regards to the Sammis plant?

19 A. Not that I remember.

20 Q. Okay. And how about any other coal-fired
21 power plant?

22 A. Yes.

23 Q. Okay. Which ones?

24 A. I don't remember the name of the plant.

1 Q. Just one plant?

2 A. Only one that I can remember.

3 Q. Do you know, was it a FirstEnergy plant?

4 A. No.

5 Q. When was this?

6 A. Either in the late 1990s or early 2000s.

7 Q. Okay. So that's the only time you can
8 recall doing any substantive work for a coal-fired
9 power plant?

10 A. Yes.

11 Q. And how about with regards to pollution
12 controls for any fossil-fueled generating unit, have
13 you ever had any substantive work before your current
14 position?

15 A. No.

16 Q. And how about with regards to
17 environmental compliance issues for any fossil-fueled
18 generating units, have you done any substantive work
19 prior to your current position?

20 A. No.

21 Q. Okay. So would you say you're qualified
22 to be in charge of fleet engineering and technical
23 support for fossil-fueled generating units?

24 A. Yes.

1 Q. Okay. And why?

2 A. Because my background in education covers
3 many areas that formed the basics of how these plants
4 operate and all the controls associated with these
5 plants.

6 Q. Okay. And that's the educational
7 background we discussed earlier today?

8 A. Yes.

9 Q. Any other qualifications outside of what
10 we discussed earlier today?

11 A. Not that I can think of.

12 Q. Okay. And same with regards to pollution
13 controls, what qualifications do you have to be
14 addressing issues related to pollution controls for
15 coal-fired power plants?

16 A. My education gave me all the basics on
17 the theory and the chemical reactions and the
18 operation of the types of equipment that are used for
19 controls.

20 Q. Okay. And that's the education we
21 discussed earlier?

22 A. Yes.

23 Q. Okay. Anything else besides that?

24 A. Not that I can think of right now.

1 Q. Okay. Do you know, do pollution controls
2 technologically advance over time?

3 A. Yes.

4 Q. And have you done anything to -- I
5 believe the education we discussed earlier in the
6 1990s; is that right?

7 A. Yes.

8 Q. Okay. Do you do anything to keep up with
9 developments in pollution controls for coal-fired
10 power plants?

11 A. Yes.

12 Q. And what do you do?

13 A. I read monthly publications from a
14 variety of sources.

15 Q. Such as?

16 A. The name of one I can think of off the
17 top of my head is Power Engineering. I just read one
18 last week.

19 Q. Okay. Anything else you do?

20 MR. LANG: Are you talking about before
21 his present position or during his present position?

22 MR. FISK: Yes, before.

23 MR. LANG: Still before.

24 A. Not that I can think of.

1 Q. And how about what qualifications do you
2 feel you have to evaluate and offer testimony about
3 environmental compliance in fossil-fueled generating
4 units.

5 A. I have a lot of experience with
6 environmental regulations throughout my career. And
7 many environmental regulations, some are the same and
8 many are similar.

9 Q. So the experience you have is with
10 regards to environmental regulations for nuclear
11 units, right?

12 A. Yes.

13 Q. But you are saying it's your opinion
14 coal-fired regulations are similar?

15 A. Many are similar.

16 Q. Okay. And what do you do to -- strike
17 that.

18 Do you do anything to keep current with
19 regulations affecting the coal-fired power plans?

20 A. Yes.

21 Q. Okay. What do you do?

22 A. Again, a lot of the monthly publications
23 that I read, some are monthly, some are quarterly, as
24 well as staying abreast of all recent, you know,

1 news, EPA proposals, those types of things.

2 Q. Okay, okay. Your current position, I
3 believe we discussed earlier, you're responsible for
4 the fleet engineering for the fossil-fueled units
5 owned by FirstEnergy, right?

6 A. Yes.

7 Q. And you are also responsible for
8 technical support; is that right?

9 A. Yes.

10 Q. Okay. What does that involve?

11 A. It could involve many things that the
12 plant would request support on.

13 Q. What's like an example of types of
14 things?

15 A. Could be equipment, could be technology,
16 things of that nature.

17 Q. Okay, okay. And on the fleet engineering
18 and technical support for the fossil-fueled units,
19 are you substantively involved in work, or do you
20 more oversee engineers and others who do the work?

21 MR. LANG: Objection.

22 A. Yeah. I would have to ask you to
23 rephrase that question. I don't know what you mean.

24 Q. Do you have -- do you have substantive

1 involvement, say, in the fleet engineering issues
2 involving FirstEnergy's fossil-fueled units?

3 MR. LANG: Same objection.

4 A. What would you define as substantive?
5 That's a matter of opinion.

6 Q. Well, in your opinion do you have
7 substantive involvement?

8 A. Yes.

9 Q. Okay. And why do you feel you have
10 substantive involvement?

11 A. I review a lot of work that is output of
12 my organization, and I review -- I receive regular
13 briefings on many, many issues to give myself the
14 opportunity to challenge my staff as to whether they
15 are going the proper technical direction or providing
16 the proper level of support.

17 Q. Okay. And you came into your current
18 role in April of 2013; is that right?

19 A. Yes.

20 Q. All right. Do you know what FirstEnergy
21 Solutions is?

22 A. Yes.

23 Q. And is FirstEnergy Solutions often
24 referred to as FES?

1 A. Yes.

2 Q. If I use that phrase, you will know what
3 I mean?

4 A. Yes.

5 Q. And what is FES?

6 A. FES is one -- it's hard to describe. FES
7 is responsible for marketing and selling the capacity
8 of our nonregulated generating stations.

9 Q. Okay. All right. And what's -- do you
10 know what FENOC's relationship to FES is?

11 A. They are both companies within the
12 FirstEnergy Corporation.

13 Q. Okay. Is FES a sub -- FENOC a subsidiary
14 of FES?

15 A. No.

16 Q. So they are both subsidiaries of
17 FirstEnergy Corporation as a whole?

18 A. Yes.

19 Q. Okay. And in your current position do
20 you provide any services to FES?

21 A. Yes.

22 Q. Okay. What sort of services?

23 A. We generate the electricity in the
24 generating plants that FES sells.

1 Q. Okay. But I guess do you personally do
2 any work directly for FES?

3 A. On occasion, yes.

4 Q. Okay. What sort of work?

5 A. I may get requests for information for
6 data relative to the plants for schedules of
7 activities, a number of things.

8 Q. Okay. Do you receive any compensation
9 from FES?

10 A. No.

11 Q. Okay. So your paycheck comes from FENOC?

12 A. Yes.

13 Q. Do you report to anyone at FES?

14 A. No.

15 Q. Does anyone at FES report to you?

16 A. No.

17 Q. Okay. And do you regularly communicate
18 with any employees of FES as part of your job?

19 A. What do you mean by regularly?

20 Q. Like do you have like weekly or monthly
21 conference calls or anything like that with FES?

22 A. Sometimes, yes.

23 Q. Sometimes, okay. In your current
24 position do you do any work for Ohio Edison Company?

1 A. No.

2 Q. Okay. Do you know what Ohio Edison
3 Company is?

4 A. Yes.

5 Q. Okay. Do you receive any compensation
6 from Ohio Edison Company?

7 A. No.

8 Q. Okay. Do you regularly provide any
9 services to Ohio Edison Company?

10 A. Not that I am aware of.

11 Q. Okay. And you don't report to anyone at
12 Ohio Edison?

13 A. No.

14 Q. Does anyone at Ohio Edison Company report
15 to you?

16 A. No.

17 Q. Okay. And do you communicate with any
18 employees from Ohio Edison Company?

19 A. Possibly.

20 Q. Okay. On job-related duties?

21 A. None that I can think of.

22 Q. Okay, okay. Same for Cleveland Electric
23 Illuminating Company, do you do any work for them?

24 A. No.

1 Q. Do you receive any compensation from
2 them?

3 A. No.

4 Q. Do you regularly provide any services to
5 Cleveland Electric?

6 A. Nothing that I can specifically remember.

7 Q. Okay. Anything generally?

8 A. No.

9 Q. Okay. Do you report to anyone at
10 Cleveland Electric Illuminating?

11 A. No.

12 Q. Does anyone at Cleveland Electric
13 Illuminating report to you?

14 A. No.

15 Q. And as part of your job, do you
16 communicate with any employees of Cleveland Electric
17 Illuminating?

18 A. Possibly.

19 Q. Okay. But anything you recall or
20 specifically know of?

21 A. I can remember meetings, and I can recall
22 requesting technical support from some of our subject
23 matter experts.

24 Q. Okay. With regards to what?

1 A. Transformers.

2 Q. Okay. Anything else?

3 A. Nothing that I can remember.

4 Q. Okay, okay. And do you know what Toledo
5 Edison Company is?

6 A. Yes.

7 Q. And do you do any work for Toledo Edison
8 Company?

9 A. Not directly.

10 Q. Indirectly?

11 A. I don't know.

12 Q. Okay, okay. So you don't know of any
13 indirect work you do for Toledo Edison.

14 A. That's correct.

15 Q. Do you receive any compensation from
16 Toledo Edison?

17 A. No.

18 Q. Do you report to anyone at Toledo Edison?

19 A. No.

20 Q. Does anyone at Toledo Edison report to
21 you?

22 A. No.

23 Q. And do you -- as part of your job, do you
24 communicate with any employees of Toledo Edison?

1 A. Possibly.

2 Q. Okay. But nothing specific you recall.

3 A. That's correct.

4 Q. Okay. And do you know what FirstEnergy
5 Service Company is?

6 A. Yes.

7 Q. And what is that?

8 A. It -- it's an entity that has a lot of
9 employees that have functions that support various
10 FirstEnergy subsidiaries.

11 Q. Okay. And do you know what is FENOC's
12 relationship to FirstEnergy Service Company?

13 A. FirstEnergy Service Company does support
14 some functions for FENOC.

15 Q. Okay. What sort of functions?

16 A. Accounting.

17 Q. Okay.

18 A. Legal. I mean, there are many.

19 Q. Anything with regards to, say, like the
20 Davis-Besse plant or?

21 A. What do you mean?

22 Q. Like do they provide technical support to
23 Davis-Besse?

24 A. Technical support in functions that are

1 companywide such as accounting.

2 Q. Okay. But in terms of operation of the
3 plant.

4 A. No.

5 Q. Okay. And do you receive any
6 compensation from FirstEnergy Service Company?

7 A. No.

8 Q. Do you report to anyone at FirstEnergy
9 Service Company?

10 A. No.

11 Q. Okay. Does anyone from FirstEnergy
12 Service Company report to you?

13 A. No.

14 Q. Okay. And do you communicate with anyone
15 at FirstEnergy Service Company as part of your job
16 duties?

17 A. Yes.

18 Q. Okay. And who?

19 A. Many people. I couldn't name them all.

20 Q. Okay, okay. About what sorts of issues?

21 A. Accounting, legal, information
22 technology, IT, many different functions such as
23 that.

24 Q. Okay, okay. Are you aware as to whether

1 FirstEnergy has both a regulated generation side of
2 its business and a competitive marketing side of its
3 business?

4 A. Yes.

5 Q. Okay. And it does?

6 A. Yes.

7 Q. Okay. Do you know which side of the
8 business FENOC falls on?

9 A. Yes.

10 Q. Okay. Which side?

11 A. FENOC plants are not regulated.

12 Q. Okay. So it's on the competitive
13 marketing side?

14 A. That's correct.

15 Q. So you yourself are a competitive
16 marketing employee?

17 A. I don't think I would characterize my
18 position as such.

19 Q. Okay. But in terms of the divide -- you
20 said there is a regulated generation side and a
21 competitive marketing side, correct?

22 A. There's a reg -- yes.

23 Q. Okay. And do you -- is your work on the
24 regulated generation side?

1 A. I provide support for the regulated
2 generation side.

3 Q. What sort of support?

4 A. My fleet subject matter experts.

5 Q. Any other support?

6 A. Not that I can think of.

7 Q. Okay. What's your understanding what the
8 regulated generation side is?

9 A. Generating plants that are owned by
10 regulated utilities.

11 Q. Okay, okay. Do you know if the Toledo
12 Edison, Cleveland Electric Illuminating, and Ohio
13 Edison, are they part of the regulated side?

14 A. Yes.

15 Q. But you don't provide support to them?

16 A. Not that I know of.

17 Q. Okay, okay. And FES is on the
18 competitive marketing side; is that right?

19 A. Yes.

20 Q. And do you know, does FirstEnergy also
21 have what is known as shared services employees?

22 A. Yes.

23 Q. Okay. And those are employees that do
24 work on both the regulated generating side and

1 competitive marketing side; is that right?

2 A. That's my understanding.

3 Q. Okay. And are you a shared services
4 employee?

5 A. I don't think so.

6 Q. Okay. What would you need to know to
7 confirm that?

8 A. I need to consult legal counsel on what
9 the definition of shared service employee is.

10 Q. Okay. Many of us need to do that. Okay.
11 So you're not sure if you're on competitive marketing
12 versus shared services versus regulated generation
13 sides of the company, correct?

14 A. I have responsibility for providing
15 support to both.

16 Q. Support to both, okay. Are you aware
17 FirstEnergy has a corporate separation policy?

18 A. Yes.

19 Q. And am I correct that policy is focused
20 on separating the activities of regulated generation
21 from those in the competitive marketing group?

22 A. Yes.

23 Q. Okay. And what is your understanding of
24 what that corporation separation policy requires?

1 A. Could you rephrase that question?

2 Q. Well, for example, you say you provide
3 support to both sides, correct?

4 A. That's correct.

5 Q. So what are your -- in doing that what
6 are your duties under the corporate separation
7 policy?

8 A. To not share inappropriate information
9 between the competitive and the regulated entities.

10 Q. Okay. And what do you mean by
11 inappropriate information?

12 A. There's a lot of information that relates
13 to things such as scheduling of outages, things like
14 that, that cannot be shared back and forth.

15 Q. Okay. Any other responsibilities under
16 the corporate separation policy as you provide
17 support to both sides?

18 A. There are many but I couldn't sit here
19 and regurgitate all of them off the top of my head.

20 Q. Is there any others that you can think
21 of?

22 A. I can think of many types of information
23 that cannot be shared, but off the top of my head, I
24 can't remember all of the specifics.

1 Q. Okay. So I guess outside of sharing of
2 information any other restrictions that the corporate
3 separation policy puts on you as you provide support
4 to both sides of the company?

5 A. Not that I can think of right now.

6 Q. Okay. And do you receive training on the
7 corporate separation policy?

8 A. Yes.

9 Q. Okay. How often?

10 A. I believe it's annually.

11 Q. Okay. And you've attended that every
12 year?

13 A. Yes.

14 Q. Okay. Do you know why FirstEnergy has a
15 corporate separation policy?

16 A. In general terms, yes.

17 Q. Okay. And why?

18 A. It's to ensure we comply with both
19 federal and state requirements.

20 Q. Okay. Is it your understanding that the
21 corporate separation policy, does it prevent someone
22 who works on one side of the regulated generation or
23 competitive marketing divide from providing services
24 to the other side?

1 A. It does not prevent some employees from
2 working on both sides.

3 Q. Okay.

4 A. It prevents the shared transfer of
5 information of certain types of information.

6 Q. Okay. And do you know how if someone is
7 working on both sides, they're not -- if one
8 individual is working on both sides, how are they not
9 sharing information from one side to the other?

10 A. They are trained on the type of
11 information that's inappropriate to be shared.

12 Q. Okay. And so if you have information
13 that isn't supposed to be shared from one side and
14 you are working for the other side, you just have to
15 pretend like you don't know that information?

16 A. You just can't share that information.

17 Q. Okay. And you have submitted testimony
18 in this proceeding on behalf of Ohio Edison Company,
19 Toledo Edison Company, and Cleveland Electric
20 Illuminating Company; is that correct?

21 A. Yes.

22 Q. And can we agree to refer to those as the
23 companies?

24 A. Yes.

1 Q. And you are appearing here today as a
2 witness on behalf of the companies?

3 A. Yes.

4 Q. Okay. And this proceeding involves a
5 proposed transaction between the companies and FES;
6 is that right?

7 A. Yes.

8 Q. Okay. And you work for FENOC which is on
9 the competitive marketing side, is that right, of the
10 business?

11 A. Yes. No, it's not marketing.

12 Q. Is it on the competitive side of the
13 business?

14 A. Yes.

15 Q. Okay. It is not in the regulated
16 generation side, right?

17 A. That's correct.

18 Q. And as an employee of a company on the
19 competitive side of the business, how are you able to
20 testify on behalf of the companies regarding a
21 proposed deal between the companies and FES without
22 violating the corporate separation policy?

23 A. As an executive at my level, I am
24 considered a shared executive, so I can provide

1 support to both regulated and nonregulated sides of
2 the company in accordance with our rules and policies
3 for what information can and cannot be shared.

4 Q. Okay. But that doesn't make you a shared
5 services employee?

6 A. No. I am an employee of FENOC.

7 Q. Okay. So you're an employee of FENOC,
8 but you're a shared executive.

9 A. That's correct.

10 Q. Okay. And the shared executive category,
11 is that officially addressed under the FES's -- or
12 FirstEnergy's corporate separation policy?

13 A. I can't remember.

14 Q. Have you seen the corporate separation
15 policy?

16 A. Yes, I have.

17 Q. Are you aware that Sierra Club submitted
18 a subpoena to FES in this proceeding?

19 A. Yes.

20 MR. FISK: Okay. Mark this as Exhibit 1.

21 (EXHIBIT MARKED FOR IDENTIFICATION.)

22 Q. Mr. Harden, you have been handed a
23 document marked as Exhibit 1; is that correct?

24 A. Yes.

1 Q. Okay. And this exhibit is the subpoena
2 duces tecum submitted to FirstEnergy Solutions
3 Corporation by Sierra Club; is that right?

4 A. Yes.

5 Q. Okay. And have you ever seen this
6 document before?

7 A. I don't believe so, no.

8 Q. Okay. And did you ever do a search for
9 documents potentially responsive to this subpoena?

10 A. No, I did not.

11 Q. Okay. Did you ask anybody to do so?

12 A. Some of my staff within my organization
13 did search for information.

14 Q. Okay. At your request or at someone
15 else's request?

16 A. At my request.

17 Q. Okay. Who searched?

18 A. I do not know.

19 Q. Who did you ask to do the search?

20 A. I asked -- who did I ask? I asked one of
21 the directors in our organization.

22 Q. Who is that?

23 A. Tom Pezze.

24 Q. How do you spell the last name?

1 A. P-E-Z-Z-E.

2 Q. Anyone else?

3 A. No.

4 Q. Okay. And what -- what is Mr. Pezze
5 director of?

6 A. Nuclear projects.

7 Q. Does he have any responsibility for any
8 of the coal-fired generation fleet?

9 A. No.

10 Q. Okay. Does he have any -- does he do any
11 work with regards to the coal-fired generation fleet?

12 A. At times.

13 Q. And what sort of work?

14 A. Any kind of support that might be
15 requested.

16 Q. Do you know, has he done any
17 environmental compliance work for, say, the Sammis
18 plant?

19 A. He may have.

20 Q. But do you know of any work he has done?

21 A. I can't -- I can't remember any specific
22 work.

23 Q. Okay. Did you ask anyone else to search
24 for documents that are potentially responsive to the

1 subpoena?

2 A. Not that I remember.

3 Q. Okay. And would Mr. Pezze have -- as
4 part of his search, would he have searched through
5 your e-mails?

6 A. No.

7 Q. Okay. Would he have searched through any
8 of your documents?

9 A. Can you --

10 Q. Do you maintain files?

11 A. Yes.

12 Q. Okay. Would he have searched through
13 your files?

14 A. No.

15 Q. And do you know what he did to do his
16 search?

17 A. No, I do not.

18 Q. Do you know what documents he produced?

19 A. Not specifically.

20 Q. Generally?

21 A. Only that he did searches to try to be
22 responsive to all the requests.

23 Q. Okay. Including the subpoena request.

24 A. Yes.

1 Q. Okay. And did you review any of the
2 documents that he identified?

3 A. Specific to the subpoena?

4 Q. Yes.

5 A. Probably.

6 Q. Okay. Do you recall reviewing them?

7 A. I do not recall any specific -- I review
8 documents every day, all kinds of documents.

9 Q. Okay. But you don't recall specifically
10 reviewing any documents Mr. Pezze might have
11 identified that were potentially responsive to the
12 subpoena?

13 A. I do not remember specifics of the
14 subpoena.

15 Q. Okay. And this subpoena is directed at
16 FES, correct?

17 A. Yes.

18 Q. Okay. And Mr. Pezze is an employee of
19 FENOC; is that right?

20 A. Yes.

21 Q. Okay. Would Mr. Pezze have been able to
22 review and search through the files of FES?

23 A. Yes.

24 Q. And how does that work if he is not an

1 employee there?

2 A. He could request or coordinate with peer
3 workers on the FES side.

4 Q. Okay. Do you know if he did so?

5 A. I do not.

6 Q. Okay. Are you appearing at this
7 deposition today as a witness for FES in response to
8 the subpoena?

9 A. Relative to the subpoena, yes.

10 Q. Okay. You don't work for FES, however,
11 correct?

12 A. No.

13 Q. And you are appearing, am I correct, with
14 regards to topic 6 which is listed on page 2 of the
15 subpoena?

16 A. Yes.

17 Q. Okay. And what did you do to determine
18 what analyses may have been performed by FES that
19 would have been responsive to topic 6?

20 A. What I can remember is asking Mr. Pezze
21 if he had both looked at station records as well as
22 coordinating with our environmental department to
23 ensure we were being responsive.

24 Q. Anything else?

1 A. Not that I can remember.

2 Q. Okay. And when you say "our
3 environmental department," you mean at FENOC?

4 A. That reports to FirstEnergy Generation.

5 Q. But it's located in FENOC?

6 A. No.

7 Q. Where is it located?

8 A. FirstEnergy Generation.

9 Q. Oh, it's located in FirstEnergy
10 Generation.

11 A. Yes.

12 Q. But not located in FirstEnergy Solutions.

13 A. Correct.

14 Q. Did you contact anybody at FirstEnergy
15 Solutions with regards to this subpoena?

16 A. Not that I remember.

17 Q. Okay. Do you know if FirstEnergy
18 Solutions has an environmental department?

19 A. I know they do not.

20 Q. Okay. So if the subpoena was directed to
21 FirstEnergy Solutions, why did you contact the
22 environmental department in FirstEnergy Generation?

23 A. Because the environmental department of
24 FirstEnergy Generation provides the environmental

1 support across all of those companies.

2 Q. Okay. And who did you speak with at the
3 FirstEnergy Generation environmental department?

4 A. Specific to the subpoena?

5 Q. Yes.

6 A. I did not speak to anyone.

7 Q. Okay. You asked Mr. Pezze to do so?

8 A. Correct.

9 Q. Do you know if he spoke to anyone?

10 A. He did speak to people within
11 environmental.

12 Q. And who?

13 A. I do not know.

14 Q. You can't identify any of them?

15 A. No. I did not ask him specifically who.

16 Q. Okay. Did he ever tell you that he did
17 speak to someone at the environmental department at
18 FirstEnergy Generation?

19 A. Yes.

20 Q. Did you ask him about the substance of
21 that conversation?

22 A. Could you rephrase that question?

23 Q. Did you ask him about any details of what
24 his conversation was with people in the environmental

1 department of FirstEnergy Generation with regards to
2 this subpoena?

3 A. Yeah. I asked him if he confirmed
4 whether or not, you know, there were such analyses
5 that the environmental department had conducted.

6 Q. Okay, okay. And what did he tell you?

7 A. He told me there were no such analyses.

8 Q. Okay. And did you do anything to verify
9 that?

10 A. No.

11 Q. Okay. And do you know what sort of
12 search anyone in the environmental department of
13 FirstEnergy Generation may have done to determine if
14 any analyses responsive to request 6 of this subpoena
15 may exist?

16 A. Could you repeat that question.

17 MR. FISK: Could you read it back.

18 (Record read.)

19 A. No, I do not know.

20 MR. FISK: Okay. Could we go off, take a
21 5 minute?

22 MR. LANG: Sure.

23 (Recess taken.)

24 MR. LANG: Back on the record.

1 Q. Okay.

2 A. Before we get started, I want to clarify
3 the content of No. 6 on this subpoena you gave to me
4 as Exhibit 1. I have seen this content many times in
5 discovery requests, and I can't remember which
6 time -- which, you know, research and activities I
7 did specifically to each request. But relative to
8 the content of that I have researched that and I have
9 had at least the individual I mentioned, Mr. Pezze,
10 research that on numerous occasions.

11 Q. Okay.

12 A. All the answers I was given were relative
13 to my memory specifically on the subpoena.

14 Q. Okay. And the subpoena specifically is
15 directed at FES, correct?

16 A. Yes.

17 MR. FISK: Could somebody go on mute?

18 MR. LANG: Please.

19 MR. FISK: Please.

20 MR. LANG: Say the magic word.

21 Q. Okay.

22 A. So I have had discussions personally with
23 environmental relative to this topic. I just don't
24 remember that being specific to this subpoena.

1 Q. So you have had conversations with the
2 environmental department at FirstEnergy Generation.

3 A. Yes, I have.

4 Q. With regards to whether FES has analyzed
5 compliance with any of the regulatory standards
6 listed there?

7 A. With regards to any evaluation that may
8 have been done to those standards, not specific FES,
9 with regard to any evaluation that may have been done
10 at anyone's request.

11 Q. Okay. So if any one of the FirstEnergy
12 companies were looking to evaluate compliance with
13 environmental regulations, that's the only place they
14 would do that through is the environmental department
15 at FirstEnergy Generation?

16 A. Yes.

17 Q. There is no one else at FirstEnergy that
18 looks at environmental compliance.

19 A. Not that I am aware of.

20 Q. The regulated companies never do so?

21 A. I'm not aware of how the regulated
22 companies would do that research.

23 Q. Okay. And FES never does that?

24 A. It would be through the environmental

1 group.

2 Q. Okay. How do you know that given that
3 you don't work for FES?

4 A. I know the functions as far as the people
5 and their expertise that are within FES.

6 Q. Okay. And who did you speak with at the
7 environmental department?

8 A. One of the managers in the environmental
9 department.

10 Q. Who?

11 A. Mike Jurusik.

12 Q. How do you spell that last name?

13 A. I can't remember the exact spelling.

14 Q. Jurusik.

15 A. And, again, my discussions with Mike were
16 relative to these topics. I don't remember if it was
17 specific to this subpoena or other discovery requests
18 as far as the timing of each of the times I've had
19 discussions with Mike.

20 Q. Okay. How many times have you discussed
21 with Mike Jurusik these topics even if not directly
22 related to the subpoena?

23 A. Maybe four or five times.

24 Q. Okay. And what were the substance of

1 those conversations?

2 A. Is how they -- what they had done, how
3 they had looked at these, whether or not they had
4 conducted any formal written analyses or whether or
5 not they had just done, you know, mental assessment
6 of -- of these to understand what work may have been
7 done associated with any of these proposed
8 regulations.

9 Q. Okay. And am I correct that there was
10 not -- there has not been done any formal written
11 analyses of these regulations?

12 A. There -- there may have been something
13 written for 316(b).

14 Q. Okay. Any other ones?

15 A. I remember an item associated with
16 316(b), and I do not remember anything else that they
17 were able to find that was written with the exception
18 of a rough estimate on worst case for coal combustion
19 waste rules.

20 Q. Does FirstEnergy generally recommend that
21 its employees not put analyses in writing?

22 A. It depends on the topic and the purposes.

23 Q. Okay. Have you been instructed not to
24 put analyses in writing?

1 A. No.

2 Q. So what topics would you be -- would it
3 be suggested that you don't put something in writing?

4 MR. LANG: And just to interject, to the
5 extent that you've received legal communications
6 involving legal advice that are privileged so to the
7 extent lawyers are talking to you about advice,
8 that's privileged and should not be discussed, but to
9 the extent it's a nonlegal communication, you can
10 answer the question.

11 A. We conduct analyses of many things. We
12 conduct analyses of thermal performance of our plants
13 as an example. That's an example.

14 Q. Okay, okay. Do you have any
15 understanding as to whether the environmental
16 regulations identified in subpoena topic 6 have the
17 potential to create significant requirements for,
18 say, the Sammis plant?

19 A. Could you repeat that? By the time you
20 got to the end, I couldn't remember the beginning.

21 MR. FISK: Sure. Could you read that
22 back.

23 (Record read.)

24 A. Not that I would consider significant.

1 Q. Okay. Why not?

2 A. Significant is a matter of opinion.

3 Q. Okay.

4 A. And my opinion would be that they would
5 not.

6 Q. So, for example, the potential 111(d)
7 greenhouse gas regulations you don't think would have
8 significant requirements for Sammis?

9 A. It may or may not.

10 Q. Okay. All right. Outside of talking
11 with Mike Jurusik I believe you said four or five
12 times, is there anything you've done to determine
13 whether FES has analyzed or asked anyone to analyze
14 compliance with any of the regulations identified in
15 topic 6?

16 A. As I stated previously, you know, as part
17 of discovery in this particular topical area, I've
18 requested Mr. Pezze to try to search and to talk to
19 appropriate personnel within the organization to be
20 responsive to this as well.

21 Q. Okay. And besides that anything else?

22 A. Not that I can remember.

23 Q. Okay. If you can, up to topic 5, it says
24 "Documents reflecting evaluation of terms of the

1 proposed 'power purchase agreement' between FES and
2 Ohio Edison Company, Cleveland Electric Illuminating
3 Company, and Toledo Edison Company, including any
4 draft contract or term sheets." Do you see that?

5 A. Yes.

6 Q. Okay. And did you do any search of your
7 records to determine if you had any documents
8 responsive to that?

9 MR. LANG: Just to make clear an
10 objection. Mr. Harden is not here testifying on
11 topic 5. He's otherwise a company witness. You have
12 his testimony in this case. We have let you ask him
13 about topic 6 as this sideline for the subpoena
14 issue. But he has not been identified as being able
15 to provide information on any other topic other than
16 topic 6 in the subpoena and obviously the testimony
17 in this case.

18 So if you would like to ask him about the
19 testimony that he is filing in this case, we can
20 certainly proceed with that. If you are not
21 interested in asking him about the testimony in this
22 case, then we can move on to the next person on the
23 list.

24 MR. FISK: Well, we will certainly get to

1 his testimony, but Mr. Hayden specifically identified
2 Mr. Harden as someone who could talk about the issues
3 raised in topic 5 when -- in convincing the attorney
4 examiner not to require production of an FES witness
5 on topic 5. He specifically identified Mr. Ruberto,
6 Mr. Harden, and Mr. Moul; and, therefore, I am asking
7 Mr. Harden about those -- that topic.

8 MR. LANG: And you have received the
9 response, as I understand it, from Mr. Hayden on
10 topic 5. Mr. Harden is not a witness on topic 5.

11 MR. FISK: Mr. Hayden specifically
12 identified him as a topic -- witness on this topic at
13 the December 30 prehearing conference.

14 MR. LANG: And the hearing examiner only
15 requested that Mr. Harden be made available on topic
16 6, not topic 5.

17 MR. SOULES: That was at the December 18
18 hearing.

19 MR. FISK: That was at the December 18
20 hearing. At the December 30 hearing there was a
21 specific discussion about topic 5, and we asked for a
22 witness. Mr. Hayden said he would not produce a
23 witness and said instead you should question Mr.
24 Ruberto, Mr. Harden, and Mr. Moul about those issues;

1 and Mr. Price, the attorney examiner, said you have
2 got three witnesses you can ask.

3 MR. LANG: Not about topic 5, about the
4 term sheet.

5 MR. OLIKER: Jim, I would like to
6 interject. This is Joe Olikier for IGS. Page 34 and
7 35 of the transcript Mr. Fisk is correctly
8 characterizing what occurred.

9 MR. LANG: That's Joe.

10 MR. OLIKER: Why don't you ask your
11 questions of Mr. Harden, Mr. Ruberto, and Mr. Moul.

12 MR. FISK: And that's what we are doing.

13 MR. LANG: And he is available to talk
14 about the term sheet.

15 MR. FISK: And you've also produced in
16 response to topic 5 a privilege log that purportedly
17 has all the documents that are responsive to it, and
18 I've asked Mr. Harden --

19 MR. LANG: I did not but I know there was
20 a privilege log.

21 MR. FISK: FES did. Who knows what
22 company that is but FES did. And Mr. Harden -- I
23 asked Mr. Harden did he search his e-mails because
24 his e-mails would be responsive to that request, and

1 if e-mails are not on that privilege log, then there
2 hasn't been an appropriate search. And that's why I
3 am asking about it.

4 MR. LANG: I certainly can't agree with
5 that but what I can tell you is he's not being made
6 available by FES on any other portion of the subpoena
7 other than No. 6.

8 MR. FISK: So Mr. Harden was never asked
9 to search his e-mails with regard to topic 5.

10 MR. LANG: I don't know and it's not
11 relevant.

12 MR. FISK: How is that not relevant if he
13 is appearing on behalf of FES if he could have
14 documents relevant to topic 5 and you -- the
15 companies -- well, FES purports to have provided a
16 complete privilege log of all responsive documents
17 they have.

18 MR. LANG: Yes. FES has responded to
19 that.

20 MR. FISK: And I am trying to determine
21 whether that list is complete, and if Mr. Harden did
22 not search his e-mails for that privilege log, then
23 that privilege log would be incomplete.

24 MR. LANG: And he is not being made

1 available as a witness on -- with regard to the
2 subpoena on anything other than topic 6 which is the
3 only requirement with regard to the subpoena.

4 MR. FISK: So you are instructing him not
5 to answer with regards to whether he searched his
6 e-mail for the documents on the privilege log that
7 FES produced with regards to topic 5?

8 MR. LANG: Correct.

9 MR. FISK: Because you believe he --
10 setting aside whether he is a witness on topic 5, is
11 your position that his e-mails would not be -- should
12 not be included on that privilege log?

13 MR. LANG: I don't know. It's an FES
14 issue. You'll have to take that up with Mr. Hayden.

15 MR. FISK: Well, we have an FES lawyer
16 right here.

17 MR. LANG: Take it up with Mr. Knipe.

18 MR. FISK: Are Mr. Harden's e-mails
19 responsive to the subpoena in which you provided a
20 privilege log saying you've done a complete search of
21 e-mails and these are all the responsive e-mails that
22 you potentially have?

23 MR. KNIPE: Mr. Harden is not here to
24 discuss topic 5. He has been made available to

1 discuss the term sheet on behalf of FES. Otherwise
2 he is here on behalf of the companies, and you have
3 his testimony. You can ask him questions about that,
4 but he is not here to discuss topic 5 on behalf of
5 FES.

6 MR. FISK: I did not ask him to discuss
7 topic 5. I asked him if he searched his e-mails for
8 that. Are you claiming that he has no responsive
9 e-mails to that topic?

10 MR. KNIPE: I am not claiming anything.
11 I am not here to testify. What I am telling you he
12 is not here to discuss topic 5 today.

13 MR. FISK: So how am I supposed to
14 determine if your privilege log is complete?

15 MR. KNIPE: You've had multiple
16 discussions with FES counsel on that. I think you
17 should know by now whether or not the privilege log
18 is complete.

19 MR. FISK: Right. I know it isn't
20 complete because, you know, they never searched
21 Mr. Moul's e-mails either, but my question is we have
22 another witness who we are asking questions about
23 whether or not the privilege log is complete. We are
24 entitled to know whether the privilege log that FES

1 presented to the attorney examiner is a complete
2 search of their records regarding topic 5, whether
3 that is complete, and I am entitled to ask any
4 witness that FES is putting up regarding whether
5 their documents -- whether that person's documents
6 are on that privilege log.

7 MR. KNIPE: And what I am telling you is
8 that regardless of whatever Mr. Harden's answer to
9 the question may be, he is not here to testify
10 regarding topic 5 on behalf of FES.

11 MR. FISK: So are you instructing him not
12 to answer whether he searched his e-mails with regard
13 to documents that potentially are responsive to topic
14 5?

15 MR. KNIPE: That's correct.

16 MR. FISK: Let's give Attorney Examiner
17 Price a call.

18 MS. BOJKO: That's what I would
19 recommend. This is Kim Bojko. It's my understanding
20 Mr. Price is on call for any disputes that arise
21 during the deposition. You want his phone number?

22 MR. SOULES: If you have it handy.

23 MR. LANG: Let's go off the record while
24 you are doing all that.

1 (Discussion off the record.)

2 MR. LANG: Back on the record.

3 MR. FISK: I believe we had a question
4 pending; is that correct?

5 (Record read.)

6 Q. That being topic 5 of the subpoena that's
7 been marked as Exhibit 1.

8 A. I did do a search of my e-mail.

9 Q. And what sort of search did you do?

10 A. What do you mean?

11 Q. How did you search your e-mail?

12 A. I looked through all the items in each of
13 my folders.

14 Q. Okay. And did you produce any e-mails in
15 response?

16 A. No.

17 Q. Okay. Because you have none?

18 A. Because I had none.

19 Q. Okay. And did you -- do you keep written
20 files or like hard copies of files also?

21 A. Are you asking relative to this?

22 Q. Just in general do you keep hard copies
23 of files in your office as part of your work?

24 A. Some.

1 Q. Okay. And do any search of those files
2 with regards to topic 5 of the subpoena?

3 A. No. I had no need to.

4 Q. Okay. Why not?

5 A. Because I did not maintain or have any
6 written records relative to that topic.

7 Q. Okay. And how far back do your e-mails
8 go?

9 A. I don't know.

10 Q. Okay. Does your system have an automatic
11 deletion process?

12 A. Yes, it does.

13 Q. And do you know how far back -- how
14 quickly e-mails get deleted?

15 A. I think one year.

16 Q. Okay. And did you go back all the way
17 through that year?

18 A. With the exception of the deleted trash
19 file.

20 Q. Certainly. And did you go back for the
21 full year and search in your e-mails?

22 A. Yes.

23 MR. FISK: Okay. That is all I have on
24 that topic. Thank you, your Honors.

1 MR. LANG: Thank you, your Honors.

2 EXAMINER PRICE: We are going to sign off
3 now. If you need us, feel free to give us a call.

4 MR. FISK: Thank you.

5 Q. If you could turn to your testimony on
6 page 5, line 7 to 8. You were speaking here about
7 the Sammis plant; is that correct?

8 A. Yes.

9 Q. Okay. And you state that units 6 and 7
10 of the Sammis plant are baseload; is that correct?

11 A. Yes.

12 Q. Okay. How do you define baseload?

13 A. A unit that's designed to operate
14 continuously.

15 Q. Okay. And is there a certain capacity
16 factor for the unit that determines whether it's
17 baseload versus something else like intermediate
18 load?

19 A. Baseload unit is typically expected to
20 operate at its full output.

21 Q. Okay. So if a unit is operating at
22 70 percent capacity factor, does it -- is it not then
23 considered a baseload plant or?

24 A. Not necessarily.

1 Q. Okay. Why not?

2 A. My interpretation of a baseload unit is
3 that it's -- except for planned and scheduled
4 outages, it will be in service most of the time at
5 full power, but it may be asked based on grid
6 conditions to reduce power.

7 Q. Okay, okay. And looking down at line 8
8 of your testimony on page 5 you say that units 1
9 through 5 of Sammis are load-following units. What
10 does that mean?

11 A. That means those units were designed and
12 intended to cycle up -- up and down for peak demand
13 periods.

14 Q. Okay. And is that what those units do?

15 A. Often, yes.

16 Q. Okay. So you would consider those units
17 in a different category than the baseload units of 6
18 and 7; is that correct?

19 A. Could you rephrase that question?

20 Q. Given that you've identified units 1 to 5
21 as load following versus units 6 to 7 as baseload,
22 would you consider those sort of different categories
23 of units?

24 A. Different categories in what respect?

1 Q. Well, I mean, is load following a
2 category and baseload a different category?

3 A. I guess maybe in the initial design and
4 intent for a plant, yes.

5 Q. Okay. But in terms of the actual service
6 they provide?

7 A. In terms of the actual service they
8 provide, they could in effect do either.

9 Q. Units 1 through 5.

10 A. Yes.

11 Q. Okay. So you are saying they could be
12 baseload units.

13 A. They could be.

14 Q. But they are not operated that way
15 currently?

16 A. It depends.

17 Q. Okay. Do you know when they are operated
18 as baseload?

19 A. No.

20 Q. Okay. Do you know when they are operated
21 as load following?

22 A. No.

23 Q. Okay. Do you expect them to remain as
24 load-following units in the future?

1 A. I don't know.

2 Q. Okay. Does a load-following unit
3 typically have a lower capacity factor than a
4 baseload unit?

5 A. Yes, typically.

6 Q. Okay, okay. And on page 6 of your
7 testimony, line 22, you identify units 1 through 4 of
8 Sammis as subcritical; is that right?

9 A. Yes.

10 Q. Okay. What does subcritical mean?

11 A. Subcritical is in relation to the steam
12 temperatures.

13 Q. Okay. And do they have higher or lower
14 steam temperatures than subcritical?

15 A. Typically lower.

16 Q. Lower and unit 5 is also a subcritical
17 unit, is that right, at Sammis?

18 A. Yes.

19 Q. Okay. But units 6 and 7 I believe are
20 supercritical, correct?

21 A. Yes.

22 Q. Okay. And that means higher -- higher
23 steam temperatures?

24 A. Yes.

1 Q. Okay. And do subcritical and
2 supercritical units typically have different heat
3 rates?

4 A. Yes.

5 Q. Okay. And the subcritical are higher?

6 A. Yes.

7 Q. Okay. And is that because of a
8 subcritical unit is generally less efficient than a
9 supercritical unit?

10 A. Yes.

11 Q. Okay. And that means, all else being
12 equal, a subcritical unit will need more coal to
13 generate the same megawatt of energy?

14 A. Typically.

15 Q. Okay. And a subcritical unit, all else
16 being equal, will typically have a higher variable
17 operating cost per megawatt-hour of energy produced
18 than a supercritical unit?

19 A. Yes.

20 Q. Do you know, does FirstEnergy have any
21 other subcritical coal units besides the Sammis ones?

22 A. Yes.

23 Q. Okay. And which ones are those?

24 A. I couldn't remember the names of all of

1 them off the top of my head.

2 Q. Ashtabula, does that sound right?

3 A. I can't remember which ones are
4 subcritical and which ones are supercritical off the
5 top of my head sitting here.

6 Q. Do you know if all of the subcritical
7 units owned by FirstEnergy outside of the Sammis
8 units are either retired or proposed to be retired?

9 A. I can't remember.

10 Q. Okay. Can you identify any subcritical
11 unit outside of the Sammis units that FirstEnergy is
12 not planning to retire?

13 A. I can't remember.

14 Q. Okay. What would you need to know to
15 recall?

16 A. I have to go look at the information for
17 all of our plants. We have a lot of plants. I can't
18 remember them sitting here.

19 Q. Okay, okay. And am I -- do you recall
20 the ages of the Sammis units?

21 A. Approximately.

22 Q. Okay.

23 MR. LANG: That was in a discovery
24 response.

1 MR. FISK: Yes. Why don't we go off for
2 one second.

3 (Discussion off the record.)

4 Q. Subject to check, would you agree with me
5 that the Sammis units 1 through 4 are in the range of
6 50 to 55 years old?

7 MR. LANG: Objection. Go ahead.

8 A. Yes.

9 Q. Okay. And that the Sammis units 5
10 through 7 are within the range of 43 to 47 years old?

11 A. I don't remember specifically with 5
12 through 7. I remember the date of the first unit. I
13 can't remember the date of the last two.

14 Q. Okay. But somewhere in the 40s range
15 sound about right?

16 A. Yes.

17 Q. Okay. Certainly 5 through 7 are newer
18 than 1 through 4, correct?

19 A. Yes.

20 Q. And do you know -- so if 5 through 7 --
21 I'm sorry. Strike that.

22 If units 1 through 4 are currently in the
23 50- to 55-year-old range, that would mean that by the
24 end of the transaction proposed here they would be

1 somewhere in the 65- to 70-year-old range?

2 A. Yes.

3 Q. Okay. I can still do math. Do you know
4 what the expected life of a subcritical coal unit
5 generally is?

6 A. My opinion is there isn't a specific
7 expected lifetime for a unit.

8 Q. Okay. And why not?

9 A. It's a matter of economics.

10 Q. Okay. So the age itself, does it play
11 any role in determining how long a plant is going to
12 last?

13 A. In my opinion only from economics.

14 Q. So a plant won't just wear out after a
15 while physically.

16 A. What part of the plant?

17 Q. Well, so over time you have to replace
18 parts of the plant, correct?

19 A. Yes.

20 Q. Okay. And is it your testimony that
21 leaving economics aside, can you just do that
22 endlessly and keep a plant going forever?

23 A. Possibly.

24 Q. Okay. Do you know of any subcritical

1 coal units that have lasted more than 70 years?

2 A. I remember seeing information for one
3 that is 70 years old that's still operating.

4 Q. Which one is that?

5 A. I don't remember the name of it off the
6 top of my head.

7 Q. Okay. Do you know of any other units
8 that -- subcritical coal units that have lasted more
9 than 70 years?

10 A. Not that I remember.

11 Q. Okay. So you are unable to identify one.

12 A. I can only remember one.

13 Q. How about more than 60 years?

14 A. I can't remember. I've seen information
15 on lots of plants. I just can't remember
16 specifically.

17 Q. Okay. So you can't name any individual
18 coal unit besides the one you said is over 70 years
19 old that have lasted more than 60 years that are
20 subcritical?

21 A. No.

22 Q. Have you assessed whether one or more of
23 the Sammis units would be expected to retire before
24 the proposed transaction would be completed here?

1 A. Can you rephrase that?

2 Q. Have you -- have you assessed whether one
3 or more of the Sammis coal units would be expected to
4 retire, say, before the 2031 completion date of the
5 transaction that's at issue in this proceeding?

6 A. Are you asking if we've done a specific
7 assessment for when it's going to retire?

8 Q. Yes.

9 A. No.

10 Q. Okay. How much generally?

11 A. What do you mean?

12 Q. Generally have you assessed whether these
13 units will actually be able to continue operating
14 through 2031?

15 A. Yes.

16 Q. Okay. And what sort of assessment have
17 you done?

18 A. There was -- there was an assessment done
19 to confirm whether the date that was being used for
20 depreciation purposes was an appropriate date which
21 is beyond the term of the referenced agreement.

22 Q. And when you are saying date assumed for
23 depreciation purposes, do you mean the retirement
24 date?

1 A. From an accounting perspective, yes.

2 Q. Okay. And what -- what date was that?

3 A. I don't remember the exact date.

4 Q. Okay. But you recall that it was after
5 2031?

6 A. I don't recall -- I don't remember the
7 exact date.

8 Q. Okay, okay. And that was for each of the
9 Sammis units?

10 A. The study that I remember used two of the
11 units as reference units in relation to all the
12 units.

13 Q. Okay. Are you referring to the I believe
14 it was February, 2014, Sargent Lundy study?

15 A. I couldn't tell you that's the exact
16 date, but I am referring to a Sargent Lundy study.

17 Q. Okay, okay. That one is confidential so
18 we'll discuss that later on.

19 Okay. On your testimony page 9, line 11,
20 you state that "Sammis targets an on-site fuel supply
21 of approximately 30 days"; is that correct?

22 A. Yes.

23 Q. Okay. Do you know if they maintained
24 such a 30-day fuel supply?

1 A. Yes.

2 Q. And they have?

3 A. I can't say it's never dropped below it
4 but in general, yes.

5 Q. Okay. Do you know how coal is
6 transported to Sammis?

7 A. Yes.

8 Q. How?

9 MR. LANG: And I don't -- I don't know if
10 you are getting into confidential business
11 information for the plants.

12 MR. FISK: Okay. We can ask --

13 THE WITNESS: That's why I was
14 questioning like.

15 MR. LANG: If it's something --

16 MR. FISK: Let's table that.

17 MR. LANG: Certainly if you have to talk
18 about contracts, that would be confidential. If
19 there is something you can answer at a high level.

20 A. Answering that divulges the nature of our
21 contracts so I would rather that be under
22 confidential.

23 Q. Okay. We'll talk about that this
24 afternoon. Turning to page 10 of your testimony,

1 lines 11 through 13, there's a discussion there about
2 a \$426 million air quality control system installed
3 between 1980 and 1984 on the Sammis plant; is that
4 right?

5 A. Yes.

6 Q. What controls were installed then? Do
7 you know?

8 A. I don't remember specifically.

9 Q. Do you know if any controls were
10 installed then?

11 A. I can remember a lot of the controls
12 being installed on the Sammis. I can't remember
13 which ones were in which years.

14 Q. Okay. And you then proceed on page 10
15 and 11 you identify some were installed in 2010,
16 correct?

17 A. Correct.

18 Q. So the WFGD project in 2010 and the SCRs
19 on units 6 and 7.

20 A. Yes.

21 Q. Okay. And then you identify other
22 controls, selective non-catalytic reductions, over on
23 page 11 on units 1 through 5. Do you see that?

24 A. Yes.

1 Q. And you don't have a date on that, right?

2 A. No, I do not remember.

3 Q. Okay, okay. So but you're not sure if
4 those might have been part of the 1980 to '84
5 project?

6 A. I'm not sure.

7 Q. Okay. Fair enough. Do you know, do
8 environmental controls have a useful life after which
9 they typically would need to be replaced or rebuilt?

10 A. It depends on the type of control.

11 Q. Okay. Do you know if any of the controls
12 that were installed in the 1980 to '84 range have
13 been replaced or rebuilt since then?

14 A. I don't remember.

15 Q. Okay. Do you know if they would need to
16 be replaced or rebuilt sometime in the near future?

17 A. I do not remember.

18 Q. Okay. Have you ever looked at that
19 issue?

20 A. What issue are you referring to?

21 Q. Whether any of the existing controls on
22 the Sammis plant are getting to the age where they
23 need to be rebuilt or replaced.

24 A. I have looked at information on some

1 parts, at least some parts --

2 Q. Okay.

3 A. -- that have to be replaced on a
4 periodicity.

5 Q. Okay. And do you know, do any of the --
6 do any of the controls need to be replaced or
7 rebuilt?

8 A. There are items that periodically have to
9 be either maintenance done on them or replaced, yes.

10 Q. Just specific parts of the controls.

11 A. Yes.

12 Q. Okay. But I guess I'm talking about any
13 like -- well, is that -- that just kind of annual
14 maintenance and, you know, fixing up of controls that
15 you would normally do?

16 A. Periodic maintenance.

17 Q. Okay. But am I correct that in addition
18 to that periodic maintenance, after some time period,
19 you may need to do like a major rebuild of a control?

20 A. I guess we would have to talk about your
21 definition of a major rebuild.

22 Q. Well, something beyond just periodic
23 maintenance.

24 A. Most of the things I would consider to be

1 periodic maintenance even though some of those
2 maintenance activities are quite large in scope.

3 Q. Okay. Do you know if any of the
4 pollution controls on the Sammis plant are facing the
5 need to have some of those large-in-scope projects
6 done to them?

7 A. I can remember generally some that are
8 scheduled for maintenance in the next couple of
9 years.

10 Q. Okay. And what would those be?

11 A. I remember generally. I can't remember
12 the specific components. I remember seeing them.

13 Q. Okay. And where did you see those?

14 A. In our capital plans.

15 Q. Okay. And what are those, the capital
16 plans? Those are FENOC capital plans or whose
17 capital plans?

18 A. FirstEnergy Generation for Sammis.

19 Q. Okay. And how far out do those capital
20 plans go?

21 A. I think five years.

22 Q. Five years, okay. And is it something
23 that's, you know, updated annually or, the capital
24 plan?

1 A. Yes. We review and update annually.

2 Q. Okay. And in your -- this one I know I
3 have.

4 MR. FISK: Could we mark this Exhibit 2.

5 (EXHIBIT MARKED FOR IDENTIFICATION.)

6 Q. You have been handed an exhibit marked
7 Exhibit 2; is that correct?

8 A. Yes.

9 Q. Okay. And this exhibit is a response to
10 Sierra Club Set 4 Interrogatory 109; is that correct?

11 A. Yes.

12 Q. Okay. And I realize you were not
13 identified as a witness on this response, but I
14 wanted to point you to the response to subsection A
15 little No. 1. Do you see that?

16 A. Yes.

17 Q. Okay. And do you see the last sentence
18 of that response it says "Company Witness Harden
19 reviewed existing compliance measures and Sammis's
20 ability to comply with future environmental
21 regulations"?

22 A. Yes.

23 Q. Okay. And is that accurate?

24 A. Yes.

1 Q. Okay. And what did you do to review
2 Sammis's ability to comply with future environmental
3 regulations?

4 A. I had discussion with some of my subject
5 matter experts and with personnel in our
6 environmental group.

7 Q. Okay. Anything else?

8 A. I've reviewed our capital plans. I may
9 have looked at other things. I don't remember
10 everything I looked at.

11 Q. Okay. Anything else you can recall you
12 did?

13 A. Nothing else that I can remember
14 specifically.

15 Q. Anything else generally?

16 A. I've had a lot of discussions with
17 personnel on many topics, and I am sure this was one
18 of them, but I do not recall -- remember specifics.

19 Q. Okay. Would there be anything you could
20 do to refresh your memory as to what else you may
21 have done?

22 A. No. I remember the discussions with
23 environmental pretty clearly. I don't remember the
24 discussions I may have had with some of our

1 engineers.

2 Q. Okay. Who -- what engineers would those
3 have been?

4 A. They would have been engineers in, you
5 know, my organization.

6 Q. Who in particular?

7 A. That's -- I don't remember the specifics.
8 I get briefed on many topics in a day.

9 Q. Okay. Did your subject matter engineers
10 produce any documents to you regarding environmental
11 compliance at Sammis?

12 A. None that I remember.

13 Q. Okay. And what would you need to do to
14 remember if they did?

15 A. I don't know that there -- other than
16 going and talking to everyone in my organization I
17 don't know what would cause me to remember that.

18 Q. Okay.

19 A. I don't -- I don't remember.

20 Q. Okay. And so were there any details of
21 your discussions with subject matter experts that you
22 can recall about the environmental compliance?

23 A. Are you referring to the subject matter
24 experts in -- that are in my direct organization?

1 Q. Yes.

2 A. That is correct, I do not remember any
3 specifics about them.

4 Q. Okay. Any other -- are there other
5 subject matter experts you spoke with about
6 environmental compliance at Sammis?

7 A. Individuals in our environmental group.

8 Q. Okay. Besides that.

9 A. No.

10 Q. Okay. And who in the environmental group
11 did you speak with?

12 A. Mike Jurusik.

13 Q. Anyone else?

14 A. Mr. Weber who is -- and Mr. Weber.

15 Q. Anyone else?

16 A. I have got to clarify Mr. Weber is not in
17 the environmental group. I am trying to remember
18 everyone I had a discussion with.

19 Q. Okay.

20 A. That's all I remember.

21 Q. Okay. Who is Mr. Weber?

22 A. He's legal counsel.

23 Q. Okay. For FENOC?

24 A. Or, no, wait. I'm sorry, I am getting

1 names mixed up in my head. I don't remember. I just
2 can't remember right now.

3 Q. Who Mr. Weber is you can't remember.

4 A. I can't remember who I had all the
5 discussion -- the names of all the individuals I had
6 discussions with. I believe Mr. Weber was one of
7 them, but I can't remember. I'm sorry.

8 Q. Okay. And do you remember, is Mr. Weber
9 legal counsel or not? Okay.

10 MR. LANG: We will stipulate that he is.

11 MR. FISK: He is, okay. I just wanted if
12 he is. I didn't want to ask what the conversations
13 were.

14 Q. Okay. So the only individual that you
15 can recall having discussions with, specific
16 individual, is Mike Jurusik; is that correct?

17 A. Specific to the --

18 Q. Environmental compliance. Sorry, I cut
19 you off.

20 A. That's the only specific name. Some of
21 Mike's staff took part in some of those discussions,
22 but I don't remember who.

23 Q. Okay, okay. And did you document those
24 discussions in any way?

1 A. No.

2 Q. Okay. And did --

3 A. I'll clarify that. Only -- documentation
4 in response to some of the requests but only in that
5 fashion.

6 Q. Okay. But -- outside of any requests you
7 might have received from parties in this proceeding,
8 you didn't make any documentation of any of your
9 meetings with Mr. Jurusik about environmental
10 compliance.

11 A. No.

12 Q. Okay. And did Mr. Jurusik share any
13 documents with you about environmental compliance at
14 Sammis?

15 A. I don't remember any.

16 Q. Okay. But he may have.

17 A. He may have showed me some of the
18 proposed regulation wording, but I don't -- I don't
19 remember.

20 Q. Okay. Are there any other documents he
21 may have shown you?

22 A. None that I remember.

23 Q. Okay. And what were your discussions
24 with Mr. Jurusik about environmental compliance at

1 Sammis?

2 A. I asked Mr. Jurusik to help me understand
3 how we know we are in compliance with all the
4 existing regulations and to help me understand what
5 the proposed regulations related to environmental
6 were and what -- his judgment on the likely outcome
7 of those regulations.

8 Q. Okay. Anything else?

9 A. I remember discussing 316(b) and what we
10 were -- what we were doing to assess 316(b). And I
11 remember having detailed discussions on the coal
12 combustion waste residuals both before and after that
13 rule became final.

14 Q. Okay. And what was the substance of the
15 discussion about the coal combustion waste rule?

16 MR. LANG: Going back to the, which keeps
17 coming up, the confidentiality issue, to the extent
18 that there is confidential plant information, we can
19 keep it to the -- for the second part of this
20 deposition. But, you know, you need to tell me
21 whether it's company specific.

22 THE WITNESS: Yeah. I mean, there were
23 cost figures we discussed that I would prefer to do
24 in the confidential section, but I can talk

1 generically about, you know, the nature of the
2 discussions now, or we can wait until later.

3 Q. Why don't we talk about the nature and if
4 there is more we can get into, we can do it this
5 afternoon.

6 A. Okay. The nature was more in terms of
7 what the proposed rules were, what -- what has been
8 occurring associated with those rules, and what --
9 his judgment on the outcome of some of those rules.

10 Q. Okay. And you said you had these
11 discussions both before and after the rules were
12 finalized; is that right?

13 A. For the coal combustion residual
14 specifically, yes.

15 Q. Okay. And has Mr. Jurusik's take on the
16 rules changed now that they are finalized?

17 A. No.

18 Q. Okay, okay. We'll punt the substantive
19 discussion about that to the afternoon. You -- let's
20 see, if you could turn to page 12, lines 5 to 7 of
21 your testimony, you state that "Because Sammis is
22 equipped with scrubbers and SNCR/SCR, no additional
23 emission controls will be required for compliance
24 with CSAPR"; is that right?

1 A. That is correct.

2 Q. Okay. And CSAPR which I think is
3 referred to as CSAPR, right?

4 A. Yes.

5 Q. That's the Cross-State Air Pollution
6 Rule?

7 A. Yes.

8 Q. And SNCR is selective non-catalytic
9 reduction control?

10 A. Yes.

11 Q. Okay. For NOx?

12 A. Yes.

13 Q. And SCR, selective catalytic reduction
14 for NOx?

15 A. Yes.

16 Q. And what is your basis for believing that
17 no additional emission controls will be required for
18 compliance with CSAPR at Sammis?

19 A. Because modeling done to date by the
20 state would not indicate Sammis is a contributor to
21 nonattainment areas.

22 Q. And what modeling are you referring to?

23 A. I've not seen the modeling personally. I
24 am referring to what Mr. Jursik briefed me on.

1 Q. Okay. So Mr. Jurusik told you the state
2 has done some modeling, and on that basis it's his
3 opinion that nothing further will be needed at
4 Sammis; is that right?

5 A. That is correct.

6 Q. Okay. And you have not reviewed any of
7 that modeling.

8 A. No.

9 Q. Okay. Have you reviewed the CSAPR rule?

10 A. Not in its entirety.

11 Q. Okay. In any sense?

12 A. I believe I've seen excerpts of the
13 rule.

14 Q. Okay. And do you recall what those were
15 with regards to?

16 A. Not specifically.

17 Q. Do you recall anything specifically about
18 the CSAPR rule?

19 A. No, just generalities.

20 Q. Okay. Do you know if Mr. Jurusik has the
21 modeling that you referred to?

22 A. I don't believe so. I believe the -- I
23 am trying to recall the discussion. What I remember
24 is that -- I mean, CSAPR is a cross-state rule

1 that -- and the modeling he referred to was some
2 state modeling that had been done.

3 Q. Okay. But you don't know if he actually
4 has that modeling himself.

5 A. I do not know.

6 Q. Or a report about that modeling.

7 A. I do not know.

8 Q. Okay. But you have never seen a report
9 about that modeling either.

10 A. No.

11 Q. Have you seen any document with regards
12 to Sammis's compliance with CSAPR?

13 A. That's -- I don't know. That's a broad
14 request.

15 Q. Well, can you recall any document you've
16 seen with regards to Sammis's compliance with CSAPR?

17 A. I can remember seeing some documents with
18 emission levels of some of the like SO-2 and NOx.

19 Q. Of emission levels from the Sammis plant?

20 A. Yes.

21 Q. Okay. Any other documents?

22 A. Not that I remember.

23 Q. Okay. What would you need to do to
24 remember if there was any other documents?

1 A. I'm not sure. I see a lot of documents.

2 Q. Okay. Do you know if CSAPR -- if under
3 CSAPR there are NOx allowances that are provided for
4 specific units?

5 A. I know there are NOx allowances. I do
6 not remember, you know, specific to the units.

7 Q. Okay. So do you know -- do you have any
8 opinion as to whether NOx emissions from any of the
9 Sammis units are higher or lower than allowances for
10 the Sammis plant under CSAPR?

11 A. I don't remember the specifics on any of
12 the units.

13 Q. With regards to their allowances.

14 A. That's correct.

15 Q. So you have no opinion as to whether --
16 whether the Sammis units were over or under their
17 allowances?

18 A. As far as opinion, I have an opinion
19 they're all under.

20 Q. And how do you know that?

21 A. Based upon briefings I've had with our
22 environmental group.

23 Q. Okay. So that's with Mr. Jurusik and his
24 team.

1 A. Yes, yes.

2 Q. And so what were those briefings?

3 A. Can you be more specific?

4 Q. I mean, did he just tell you we are under
5 the allowances and that was it or is there some sort
6 of here is what the allowances are, here is what our
7 emissions are?

8 A. We had discussions on how we know we are
9 in compliance, and they did have data on the
10 emissions that they reviewed with me.

11 Q. Okay. And that was written data, like a
12 document?

13 A. Yes.

14 Q. Okay. Was it a document actually
15 analyzing are we in compliance with CSAPR?

16 A. It was a document listing the levels of
17 emissions. I don't remember what else was on the
18 document.

19 Q. Okay. Was that document ever produced to
20 any of the parties?

21 A. I believe it was. I take that back.
22 Maybe not the specific document but information
23 concerning those emission levels may have been.

24 Q. But you're not sure.

1 A. No, I'm not.

2 Q. Okay. Any other basis for believing that
3 Sammis emissions are below the allowances under
4 CSAPR?

5 A. None other than what we've discussed.

6 Q. Okay. And have you ever directly
7 evaluated whether SCRs would need to be installed on
8 any of Sammis units 1 through 5?

9 A. No.

10 Q. Okay. And is that true not just under
11 CSAPR but under any other environmental regulatory
12 program?

13 A. Is what true?

14 Q. That you have never evaluated whether an
15 SCR would be needed on units 1 through 5?

16 A. No, I have not.

17 Q. Okay. And have you ever evaluated the
18 potential cost of compliance with the recently
19 propounded Clean Power Plan for the Sammis plant?

20 A. What do you mean by evaluated?

21 Q. Have you done any analysis of that of
22 how -- what sort of costs for the Sammis plant might
23 be established by the Clean Power Plan?

24 A. No.

1 Q. Do you know if anybody at FirstEnergy
2 has?

3 A. No, I do not.

4 Q. Have you ever discussed that topic with
5 anybody?

6 A. Yes.

7 Q. With who?

8 A. With Mr. Jurusik.

9 Q. Okay. What were those discussions?

10 A. They were part of the discussions on the
11 proposed rules as I explained previously. We went
12 through what the proposed -- the existing proposed
13 rules were.

14 Q. Oh, so that was not with just regards to
15 the coal combustion waste but that was with regards
16 to the Clean Power Plan also.

17 A. Yes.

18 Q. And did Mr. Jurusik have an opinion as to
19 any costs that might apply to the Sammis plant under
20 the Clean Power Plan?

21 A. Not that I remember.

22 Q. And did he provide you any documents
23 about that topic?

24 A. No.

1 Q. Okay. Have you ever seen any documents
2 about the Clean Power Plan?

3 A. I don't know.

4 Q. Okay. You can't remember any documents
5 you've seen?

6 A. That's correct. I do not remember.

7 Q. Okay, okay. Do you know, does FES have a
8 forecast of CO-2 prices?

9 A. I don't know.

10 Q. Okay. Have you ever seen one?

11 A. No.

12 Q. Okay. Do you ever speak with anybody in
13 the business development group?

14 A. Yes.

15 Q. Okay. And do you know, do they prepare
16 forecasts of various commodity prices?

17 A. Yes.

18 Q. Okay. And do you have any involvement in
19 that?

20 A. No.

21 Q. Okay. Do you ever use any of their
22 forecasts?

23 A. Are you referring relative to commodity
24 prices?

1 Q. Yes.

2 A. No, I do not.

3 Q. Okay. And how about with regards to
4 energy prices?

5 A. Energy prices in an indirect way.

6 Q. How so?

7 A. In -- in assessing our forecasts for a --
8 from a profit and loss standpoint for our plants.

9 Q. Okay. And are those -- over what time
10 length are those forecasts?

11 A. I would prefer to do that in a
12 confidential session.

13 Q. Okay. Fair enough. We can do that.
14 Okay. And are you familiar with the proposed
15 agreement under which FirstEnergy Solutions would
16 sell its capacity, energy, and ancillary services to
17 the companies?

18 A. Are you referring to the term sheet?

19 Q. Yeah, that's certainly part of it, yes.

20 A. Yes.

21 Q. Are you -- and are you aware that the
22 term sheet is for a proposed transaction that's at
23 issue in this proceeding?

24 A. Yes.

1 Q. Okay, okay. And do you know -- when did
2 you first hear about the proposed transaction?

3 A. I don't remember a specific date. It was
4 generally in the May-June timeframe of last year.

5 Q. Okay. And do you remember who told you
6 about it?

7 A. Yes.

8 Q. And who?

9 A. Jim Lash.

10 Q. Jim Lash, okay. And if I remember
11 correctly, he's at FirstEnergy Generation; is that
12 right?

13 A. Yes.

14 Q. And what did he tell you?

15 A. He told me that he wanted me to support a
16 team that FES was putting together to evaluate such a
17 transaction.

18 Q. Okay. Anything else he told you?

19 A. No.

20 Q. Okay. And that team is that -- is that
21 commonly known as the FES team?

22 A. Yes.

23 Q. Okay. And what sort of support did he
24 ask you to provide to the team?

1 A. He asked me to provide support in the
2 form of gathering any information that was requested
3 and providing, you know, a perspective from the
4 generating plants.

5 Q. A perspective about -- about what?

6 A. Any technical perspective that would come
7 up, you know, relative to working on such an
8 agreement.

9 Q. Okay. Anything else you were asked to
10 provide to the FES team?

11 A. Are you still referring to when Mr. Lash
12 asked me to?

13 Q. Yes.

14 A. No.

15 Q. And who have you communicated with
16 regarding the proposed transaction?

17 A. The FES team members.

18 Q. Okay. Makes sense. Anyone -- let's
19 start anyone besides the FES team members and
20 Mr. Lash obviously.

21 A. There may have been many occasions where
22 I would have discussed that there was such a team
23 working on transactions but there wouldn't -- there's
24 no instance that I recall discussing any details from

1 the team or from them with anyone other than the team
2 members.

3 Q. Okay. Are you aware of -- do you know
4 what the EDU team is?

5 A. I know that one existed.

6 Q. Okay. And what -- do you know what that
7 is?

8 A. A team similar to the FES team put
9 together for the companies.

10 Q. Okay. And did you ever communicate with
11 anyone on the EDU team regarding the proposed
12 transaction?

13 A. No.

14 Q. Okay. So have you ever spoken to Jay
15 Ruberto about the proposed transaction?

16 A. No.

17 Q. How about Judah Rose?

18 A. No.

19 Q. Okay. I assume you have spoken with
20 Sharon Noewer?

21 A. Yes.

22 Q. Okay. How about Jason Lisowski?

23 A. Yes.

24 Q. Kelley Mendenhall?

1 A. Yes.

2 Q. Okay. Tracy Ashton?

3 A. I don't remember.

4 Q. Okay. Do you know who Tracy Ashton is?

5 A. Not off the top of my head, no.

6 Q. How about Celia Hashlamoun?

7 A. Yes.

8 Q. Okay. Did I get her last name right?

9 A. Close.

10 Q. Close, okay. And how about Fred von Ahn?

11 A. Ahn, yes.

12 Q. Okay. And so the people that you did
13 speak with, was all of that in the context of the FES
14 team meetings or work?

15 A. Yes.

16 Q. Okay. Did you -- did you attend any FES
17 team meetings?

18 A. Yes.

19 Q. Okay. How many about?

20 A. I don't remember specifically.

21 Q. Okay. Are we talking 1 or 5 or 10? Any
22 range?

23 A. Half a dozen, maybe a few more.

24 Q. Okay, okay. And did you keep any notes

1 of those meetings?

2 A. No.

3 Q. No, okay. Do you recall what was
4 discussed at those meetings?

5 A. I recall some of the things discussed at
6 the meetings, but I'm not -- I am sure I can't recall
7 everything.

8 Q. Okay. Anything -- anything specific
9 outside of the term sheet which we'll get to in a
10 minute?

11 A. Can you rephrase that?

12 Q. Anything -- so there's a term sheet,
13 correct --

14 A. Yes.

15 Q. -- that you had some involvement with; is
16 that right?

17 A. Yes.

18 Q. Okay. Leaving aside the term sheet for a
19 minute, anything else specifically you can recall
20 that was discussed at the FES team meetings?

21 A. All the discussions that I remember in
22 some -- you know, relate to the term sheet or aspects
23 of the term sheet.

24 Q. Okay, okay. Fair enough.

1 MR. LANG: Good time to take a break if
2 that's okay?

3 MR. FISK: That's fine, that's fine. 10
4 minutes?

5 MR. LANG: Yeah. Let's do 10 minutes.

6 (Recess taken.)

7 MR. LANG: Back on.

8 MR. FISK: So why don't we go ahead and
9 mark this as Exhibit 3.

10 (EXHIBIT MARKED FOR IDENTIFICATION.)

11 Q. Okay. Mr. Harden, you have been handed a
12 document labeled Exhibit 3; is that correct?

13 A. Yes.

14 Q. And it is the re -- Attachment 1 to the
15 Response to IEU Set 1-INT 25; is that right?

16 A. Yes.

17 Q. And is this the term sheet that we've had
18 reference to earlier?

19 A. Yes, it is.

20 Q. Okay. Great. That's why I assume you
21 have seen this document.

22 A. Yes, I have.

23 Q. And to your knowledge -- I know this
24 document says draft on it, but to your knowledge is

1 it the final version of the term sheet?

2 A. Yes.

3 Q. So you were involved in the negotiations
4 around this term sheet; is that correct?

5 A. Not in the negotiations between FES and
6 the companies. I did not attend the -- those
7 negotiation meetings.

8 Q. Okay. So what was your involvement with
9 the term sheet?

10 A. My involvement was participating in the
11 FES meetings and providing input.

12 Q. Okay. And do you know why you were
13 selected to do that?

14 A. No.

15 Q. Okay. Fair enough. Okay. And these
16 were -- were these the meetings you referred to
17 earlier when I think you said you attended, you know,
18 maybe half a dozen meetings or so; is that right?

19 A. Yes.

20 Q. Okay, okay. And were there any specific
21 provisions of the term sheet that you recall
22 providing input on?

23 A. Yes.

24 Q. Okay. Which ones?

1 A. First, I am not certain I can recall
2 every.

3 Q. Let's start with what you recall.

4 A. Yes. Certainly the description of the
5 facilities to ensure that was correct.

6 Q. Okay.

7 A. Provided input on the unit contingent.

8 Q. Okay.

9 A. I remember providing input on operating
10 work.

11 Q. Okay.

12 A. I remember providing input on contract
13 price.

14 Q. Okay.

15 A. I remember providing input on some of the
16 definitions and that's what I remember directly
17 providing input on, but I was a participant in
18 discussions on every section.

19 Q. Okay, okay. All right. Let's start with
20 the facilities description, just one quick question,
21 you identify Sammis as a 2,200 megawatt coal-fired
22 plant, correct?

23 A. Yes.

24 Q. Okay. And on your testimony on page 5,

1 lines 5 to 6, and I think there was some confusion in
2 yesterday's deposition about this, you have a
3 reference to it being 2,130 megawatt PJM ICAP; is
4 that correct?

5 A. Yes.

6 Q. And what does that refer to, the 2,130
7 PJM ICAP?

8 A. When you refer to the capacity of a power
9 plant, there are many different ways to refer to the
10 capacity of it. There's more or less a design
11 number, which the 2,200 is, and then there's a bunch
12 of ways that PJM defines various terms, ICAP, UCAP.
13 I don't remember the specific definition.

14 Q. Okay. So but the 2,130 is the amount of
15 megawatts from Sammis that would qualify under PJM's
16 ICAP rules.

17 A. It's what meets PJM's rules for
18 definition of ICAP.

19 Q. And the 2,200 megawatt, is that like the
20 nameplate capacity?

21 A. It's the nominal design.

22 Q. Okay, okay. And when we are referring to
23 megawatts, that's typically -- that's a measurement
24 of capacity, right, not generation?

1 A. It depends on how the term is being used.

2 Q. Okay. Is generation expressing like
3 megawatt-hours?

4 A. Well, for -- for like a capacity of a
5 unit we would refer to it as megawatts electric.
6 That's what it's capable of providing at any given
7 moment.

8 Q. Okay, okay. And then the generation
9 would be the amount that it actually produces --

10 A. Yes.

11 Q. -- in megawatt hours.

12 A. Yes.

13 Q. Okay. So on the term sheet page 2, you
14 said you had some input with regards to the unit
15 contingent provision; is that right?

16 A. Yes.

17 Q. And that's Section 8 on the term sheet?

18 A. Yes.

19 Q. Okay. And what was your input there?

20 A. My input concerned the -- the use of the
21 term good utility practice.

22 Q. Okay.

23 A. And I remember a lot of discussion on
24 the -- I don't know how it refers to it, the 180

1 days, what was the right duration.

2 Q. Okay.

3 A. Or appropriate duration, I should say.

4 Q. Right. Okay. And with regards to good
5 utility practice what was your -- what was your input
6 there?

7 A. There was some who disagreed with wanting
8 to use the term and questioned whether there was a
9 good definition for the term.

10 Q. Okay. And what was your -- what was your
11 opinion?

12 A. My opinion after all of the discussions
13 was that there is good definitions for it. PJM has a
14 definition for it and that it -- it was an acceptable
15 term to use.

16 Q. Okay, okay. And so my understanding of
17 the unit contingent provision is that if one of the
18 units that's part of the transaction is -- is
19 unavailable for up to 180 days, FES doesn't have to
20 provide services from that unit so long as the
21 unavailability couldn't have been avoided through the
22 use of good utility practices; is that right?

23 A. That's my understanding as well.

24 Q. Okay. Do you have an understanding as to

1 who determines whether the unavailability could have
2 been avoided through the exercise of good utility
3 practice under the term sheet?

4 A. No.

5 Q. Okay. Do you know if that was ever
6 discussed?

7 A. I don't remember it being discussed.

8 Q. And that's not addressed in the term
9 sheet, correct?

10 A. Not that I'm aware of.

11 Q. Okay. And when I say -- when I say who,
12 I mean in terms of whether FES or the companies would
13 determine. Was that your understanding?

14 A. Yes.

15 Q. Okay. And then on the 180 consecutive
16 days issue, is it my understanding that FES's initial
17 position was they didn't want to have a time limit?

18 A. Yes.

19 Q. Okay. And how was the 180 days reached?

20 A. What I remember is when there were
21 negotiation meetings between the representatives of
22 the companies and the representatives of the FES team
23 that attended those, they each communicated to one
24 another the other's position. And then, you know, in

1 the case of the FES team, the position would be
2 brought back to us as a team to discuss whether we
3 thought the proposal by the companies was reasonable
4 or not, and then we would have some debate and
5 discussion on whether we thought it was reasonable
6 and, if not, what would be reasonable.

7 Q. Okay. And did you think 180 consecutive
8 days was reasonable?

9 A. Yes.

10 Q. Okay. And why?

11 A. 180 days, I feel -- well, encompasses the
12 types of -- the types of issues that you would
13 typically expect at a typical fossil or nuclear plant
14 that would result in a scheduled outage.

15 Q. So scheduled outages are generally going
16 to be less than 180 days.

17 A. Yes.

18 Q. Okay. So it would cover basically any
19 scheduled outage.

20 A. Let me read.

21 Q. Sure.

22 A. Yeah, I believe it would also encompass
23 scheduled outages.

24 Q. Okay, okay. And do you know, would that

1 180 days cover forced outages?

2 A. Yes.

3 Q. Okay. And would you expect forced
4 outages to last less than 180 days?

5 A. Yes.

6 Q. Okay.

7 A. Typical forced outages.

8 Q. Okay, okay. And the 180 -- it says 180
9 consecutive days, so is that for each individual
10 unavailability period?

11 A. Let me think. Yes.

12 Q. Okay. So Sammis 6, let's say, in 2015
13 has a three-month outage and then two years later has
14 a two-month outage. Those are two separate periods;
15 you get 180 days for each one of them, right?

16 A. Yes.

17 Q. Okay. And is it by -- counted by unit as
18 opposed to by plant, the 180 days?

19 A. That would be my understanding.

20 Q. Okay. And is it your opinion that the
21 Sammis plant is currently being operated in
22 compliance with good utility practices?

23 A. Yes.

24 Q. And it has been for the past -- as long

1 as you know?

2 A. As long as I know, yes.

3 Q. Okay. And how about the Davis-Besse
4 plant?

5 A. Yes.

6 Q. Okay. Did you have any input -- with
7 regards to the unit contingent provision, did you
8 have any input about the replacement services that
9 would need to be provided if it went -- if the
10 unavailability went beyond 180 days?

11 A. I remember discussing it. I do not
12 remember whether I directly provided input.

13 Q. Okay. Do you know at what cost those
14 replacement services would be provided under the term
15 sheet?

16 A. I'm sorry. Can you repeat that?

17 Q. Do you know what cost the replacement
18 services would be provided under the term sheet?

19 A. I don't believe it specifies a cost at
20 all. It just specifies there would have to be
21 replacement services or equivalent.

22 Q. Okay. But is it your understanding that
23 the companies would have to pay for the replacement
24 services under the agreement?

1 A. Within -- are you referring to within the
2 180 days if good utility practices were used?

3 Q. No. After the 180-day period, my
4 understanding is unavailability goes beyond 180 days,
5 FES has to provide replacement capacity, energy, and
6 ancillary services to the companies, correct?

7 A. Yes.

8 Q. Okay. And who -- do the companies have
9 to pay for that replacement services?

10 A. No. That is not my understanding. FES
11 would have to procure and provide -- procure or
12 provide those replacement services.

13 Q. At no cost to the companies?

14 A. I don't believe it's at no cost. I have
15 to read the entire agreement to get to the exact
16 words that I remember from the discussions. If you
17 want me to take the time to do that, I can.

18 Q. Is it -- is it addressed in Section 13,
19 contract price?

20 A. I don't believe it is. I remember the
21 discussion. If you want me to take the time, I can
22 read it.

23 Q. I don't want to tie this up too long. Do
24 you recall any discussions about that topic?

1 A. I do recall discussions.

2 Q. Okay. Do you recall the substance of
3 those discussions?

4 A. Yeah. I remember in general -- I can't
5 remember the specific where it landed in what
6 section, but I can tell you that the -- it was not
7 the intent in the discussions that FES could pass --
8 pass on any cost no matter what it was to go procure
9 replacement services if it went beyond the 180 days
10 or if good utility practices weren't used.

11 Q. Okay. So the intent was some costs would
12 get passed on but just not a blank check.

13 A. That's what I remember from the
14 discussions.

15 Q. Okay, okay.

16 A. I just don't remember where the words
17 specifically landed in here.

18 Q. Sure. Do you know if the discussions
19 during the initial 180 days, assuming good utility
20 practices were followed, would the companies still be
21 expected to pay depreciation and fixed operating
22 costs of the unit even though they are not being
23 provided any energy or capacity or ancillary
24 services?

1 A. Yes.

2 Q. Yes, they would?

3 A. That is my understanding.

4 Q. Okay, okay. Great. You said you had
5 some input into operating work which I believe is
6 Section 11 on page 3; is that right?

7 A. Yes.

8 Q. Okay. What was your input there?

9 A. It revolved around the use of the term
10 good utility practice.

11 Q. Okay. Kind of the same discussion we had
12 about being a unit contingent?

13 A. Yes.

14 Q. And then on page 4, Section 13, I believe
15 you had said you had input on contract price; is that
16 right?

17 A. Yes.

18 Q. And what was your input on that section?

19 A. Just to ensure that the language was
20 correct for what -- I remember specifically for fuel
21 since fossil plant fuel and nuclear plant fuel were
22 both procured and expensed differently.

23 Q. Okay. Any other input?

24 A. Not specifically that I remember.

1 Q. Okay. And I believe you said that you
2 had some input on some of the definitions that are
3 listed I guess starting on page 13; is that correct?

4 A. Yes.

5 Q. Okay. I assume one of those was good
6 utility practice?

7 A. Yes.

8 Q. Any other ones?

9 A. That's the only one I remember
10 specifically providing input on.

11 Q. Okay. And do you recall any other
12 provision in the term sheet that you specifically
13 provided input on?

14 A. Other than my opinion as to whether it
15 was acceptable, no.

16 Q. Okay. And is your opinion that the term
17 sheet that's in front of you is acceptable to FES?

18 A. Yes.

19 Q. Okay. And why?

20 A. I believe it was a fairly negotiated
21 agreement between the parties and that the
22 negotiations ended in terms that were neither --
23 neither overly favorable or unfavorable to either
24 party.

1 Q. Okay. And do you believe that the term
2 sheet was negotiated at arm's length?

3 A. Yes, I do.

4 Q. Okay. And did those arm's length
5 negotiations continue through the day the term sheet
6 was finalized?

7 A. Yes.

8 Q. And in your involvement in the term sheet
9 you were representing the views of FES; is that
10 right?

11 A. That is correct.

12 Q. And you were representing their
13 interests.

14 A. Yes.

15 Q. You were not representing the interests
16 of the companies; is that correct?

17 A. That is correct.

18 Q. Okay. Do you recall any discussions
19 about whether FES could terminate the proposed
20 transaction before the 15-year period runs?

21 A. I remember some general discussions, and
22 then I remember one specific area in the term sheet
23 that addressed.

24 Q. And what were the general discussions?

1 A. The general discussions were that if the
2 agreement were going to be entered into, that it
3 needed to be such that neither party had the right to
4 walk away or terminate the agreement at any point.

5 Q. Okay. And that was the position of FES?

6 A. Yes, it was.

7 Q. And who -- who communicated that
8 position?

9 A. It was the opinion of most of the team
10 that -- that -- maybe all, I can't remember every
11 single person's opinion, that for this to be a fair
12 transaction for both parties that the only way it
13 could be fair is if neither party had the right to
14 terminate.

15 Q. Okay, okay. Any other general
16 discussions about that issue that you recall?

17 A. Not that I remember right at this moment.

18 Q. Okay. And then you said that this was a
19 reflection, I guess, of that discussion in specific
20 terms in the agreement; is that right?

21 A. No. There's one specific area in here
22 that I do remember being discussed that did have I
23 will call it a caveat relative to termination.

24 Q. Okay. And what is that?

1 A. That's Section 20 --

2 Q. Okay.

3 A. -- conditions.

4 Q. Okay. And what's your understanding of
5 Section 20?

6 A. My understanding of Section 20 was that
7 that section basically states that if -- before or
8 after the transaction is consummated, it is
9 recognized that some approval that's needed has not
10 been required -- that's required has not been
11 attained, then the FES could terminate it.

12 Q. Okay.

13 A. But that's only if that was an approval
14 needed to consummate it.

15 Q. Okay, okay. In your understanding is
16 there any other provision of the term sheet that
17 would prohibit FES from terminating the agreement
18 early?

19 A. Could you rephrase that?

20 Q. In the term sheet is there any other
21 provision you can point to that prohibits FES from
22 terminating the agreement early?

23 A. I believe there is. My understanding is
24 Section 10, the delivery period obligates both

1 parties for the entire duration of June 1, 2016, to
2 May 31, 2031, and that that obligation explicitly
3 would not allow termination.

4 Q. Okay, okay. Do you recall -- well, I'm
5 sorry, any other provisions besides that?

6 A. That discussed --

7 Q. That would --

8 A. -- inability to terminate?

9 Q. Yes.

10 A. No, I do not.

11 Q. Okay. If I could turn to page 10 of the
12 agreement -- the term sheet, sorry, paragraph 19,
13 limitations of liability. Do you see that?

14 A. Yes, I do.

15 Q. Do you recall any discussions about that
16 provision?

17 A. I don't recall any specific discussions.

18 Q. Okay. Do you know if a party were to --
19 if FES were to terminate the agreement early, whether
20 that would cause direct damages to the companies?

21 A. I would have to get a legal counsel to
22 help me with the interpretation of those words.

23 Q. Fair enough. Okay. So in your
24 discussions of the term sheet among the FES team,

1 were there any written communications?

2 MR. KNIPE: Excuse me. Just to be clear
3 are you addressing the topic -- are you addressing
4 topic 5 in your subpoena? I understand Mr. Lang is
5 defending the subpoena. I want to be sure.

6 MR. FISK: I am saying with regards to
7 the term sheet.

8 MR. KNIPE: Okay. With that
9 clarification.

10 A. The term sheet itself, of course.

11 Q. Okay. Sure.

12 A. There -- I don't remember the specifics
13 of any of the communications but there were e-mails
14 to the team members on status and, you know, copies
15 of a draft term sheet to come to a meeting prepared
16 to discuss our opinions on.

17 Q. Okay. Any other written communications
18 you can recall?

19 A. Not that I remember.

20 Q. Okay. And do you know if any of those
21 written communications were produced to any of the
22 parties in this proceeding?

23 MR. KNIPE: I would say at this point
24 this is requested in topic 5 seeking documents

1 reflecting evaluation of terms including draft term
2 sheets so please be mindful.

3 MR. LANG: And I just object. It's
4 going -- what -- what the parties did in discovery is
5 very far beyond what he is here to testify about but
6 certainly -- you can answer, if you know.

7 A. Can we repeat the question?

8 MR. FISK: Can you read the question
9 back.

10 (Record read.)

11 A. I don't have knowledge of everything that
12 was produced.

13 Q. Okay. Fair enough. And do you know,
14 were any notes of any of the FES team meetings taken,
15 written notes?

16 A. None that I saw.

17 Q. Okay, okay. Outside of your work in the
18 FES team and your one communication with Jim Lash,
19 did you have any other communications regarding the
20 proposed transaction with anybody else at FES?

21 MR. KNIPE: At this point I'm going to --
22 we are really delving into topic 5 now about the
23 written communications, and I hate to do this, but I
24 would instruct the witness not to discuss any

1 documents regarding FES's evaluation of the terms of
2 the proposed transaction because this falls -- now we
3 are getting back into topic 5.

4 MR. FISK: Right. And I am just trying
5 to determine if there are documents out there that
6 exist. And I mean, Mr. Price already made clear I
7 could ask him about what sort of search he did of
8 documents.

9 MR. KNIPE: My understanding Attorney
10 Examiner Price heard the questions that he was
11 prepared to allow and that was the end of the
12 discussion of topic 5.

13 MR. FISK: He said we could ask questions
14 regarding documents to determine whether -- whether
15 the privilege log that the company -- that FES
16 produced is complete.

17 MR. LANG: And I think the issue is you
18 asked your questions while Mr. -- Attorney Examiner
19 Price was on the phone and we let that go and he said
20 he would give you a little leeway. You asked your
21 questions and so are you --

22 MR. FISK: I am asking if he had any
23 other communications.

24 MR. LANG: Are you swinging back around

1 to the same topic?

2 MR. FISK: Well, trying to find out if he
3 had any other communications with anyone else at FES
4 about this proposed transaction. I mean, he is
5 being -- he was part of an FES team. He was asked to
6 provide testimony about this -- about these plants
7 relevant to the proposed transaction in a proceeding.
8 I'm entitled to find out who he talked to.

9 MR. KNIPE: Now you are saying talked to,
10 but I think your question related to written e-mails
11 and communication. He is not here to discuss
12 documents relating to topic 5.

13 MR. FISK: I am allowed to ask him who he
14 communicated with about this proceeding and this
15 transaction.

16 MR. KNIPE: That's a little different.

17 MR. LANG: I was going to recommend that
18 as a compromise, if I could.

19 MR. FISK: Well, communications includes
20 written communications.

21 MR. LANG: The request is for documents.
22 To the extent, you know, he talked to somebody about,
23 you know, what he did on the team, I think you can
24 ask him did he talk to any -- did he talk to anyone

1 else outside of the FES team about the term sheet. I
2 think -- is that what you are trying to ask him?

3 MR. FISK: I am trying to ask him if he
4 had any other communications with anyone else at FES
5 about the proposed transaction besides the members of
6 the FES team and the one phone call -- one
7 communication with Mr. Lash.

8 MR. KNIPE: And I guess my last -- my
9 request is that you define what you mean by
10 communications for the witness.

11 MR. FISK: Conversations, documents,
12 e-mails.

13 MR. KNIPE: And I would instruct him not
14 to answer with regard to documents because he is not
15 here today on behalf of FES to testify regarding
16 documents that were requested in topic 5.

17 MR. FISK: But if he has a document from
18 FES, I am plainly entitled to finding that out.

19 MR. KNIPE: You asked your questions
20 earlier about documents. The Attorney Examiner heard
21 them. That's the end of topic 5 from my
22 understanding.

23 MR. SOULES: Just because there are words
24 in the subpoena that correspond with words in

1 discovery requests that were made to the companies
2 doesn't mean those issues are automatically, you
3 know, out of bounds.

4 MR. KNIPE: I did not understand what you
5 just said. What do you mean with regard to discovery
6 that was asked of the companies?

7 MR. FISK: He is appearing here on behalf
8 of the companies, correct?

9 MR. KNIPE: Yes, as a witness for the
10 companies and he can talk about his testimony and
11 discovery response, yes.

12 MR. FISK: Yes. And if he has a
13 communication from FES as a witness for the
14 companies, I'm entitled to know whether he has
15 communications from FES.

16 MR. KNIPE: But so is your question
17 excluding any communications related to the
18 evaluation of the proposed transaction? I did not
19 hear that in your question. That's topic 5.

20 MR. FISK: I am asking him if he has any
21 communications as a witness for the companies. Has
22 he had any communications regarding a proposed
23 transaction with anybody outside of who he has
24 mentioned which is the FES team and Mr. Lash.

1 MR. KNIPE: And if we are talking about
2 conversations, that's -- I'm okay with what his
3 answer is but if it is going into topic 5 and
4 documents, communications reflecting evaluation terms
5 and proposed transactions within FES, Mr. Harden is
6 not here today to discuss that. So questions were
7 allowed earlier while the Attorney Examiner listened.
8 Those were asked and answered.

9 MR. FISK: How am I not entitled to know
10 whether a witness for the companies has a document
11 from FES about the proposed transaction? If you --
12 if you guys sent a document to the companies' witness
13 about the proposed transaction, that's plainly
14 relevant to the proceeding.

15 MR. KNIPE: Who are "you guys"?

16 MR. FISK: FES. I realize you might be
17 worried that you've blown your privilege by giving it
18 to another company, but I am plainly entitled to know
19 that.

20 MR. KNIPE: I don't understand how this
21 relates to the question you asked. The question you
22 asked clearly encroached on topic 5, and I am
23 instructing the witness not to discuss written
24 communications within -- regarding FES's evaluation

1 of the terms.

2 MR. FISK: Are you instructing him not to
3 answer if he had any communications with anyone at
4 FES about the proposed transaction?

5 MR. KNIPE: That's not what I said.

6 MR. FISK: Okay. Will you let him answer
7 that question?

8 MR. KNIPE: If we are restricting it to
9 oral communication, yes.

10 MR. FISK: Why am I not entitled to ask
11 about written communications? I am entitled to ask
12 about an oral communication.

13 MR. KNIPE: Because you asked for written
14 communication. You had your argument before the
15 Attorney Examiner. You lost. You revisited it again
16 this morning. Mr. Hayden came in. The attorney
17 examiner reached a compromise of allowing you to ask
18 a few additional questions. You asked those
19 questions and it's over.

20 MR. FISK: That was with regards to
21 Mr. -- Mr. Harden as an FES witness. I am asking as
22 a company witness, he's a company -- he is a witness
23 for the companies here, correct?

24 MR. KNIPE: Yes.

1 MR. LANG: Yes.

2 MR. FISK: And I am entitled to know as a
3 witness for the companies who he has spoken to and
4 what documents he's received.

5 MR. KNIPE: So this question that you are
6 asking, if you articulate it with these parameters
7 that you're talking to him as a -- purely in his
8 capacity as a witness for the companies, has he --
9 not with respect to his member -- his capacity as a
10 member of the FES team, has he had any communications
11 regarding his witness duties with FES? Is that what
12 you are asking?

13 MR. FISK: No, has he had any
14 communications with regarding the proposed
15 transaction.

16 MR. KNIPE: And you are encroaching on
17 topic 5.

18 MR. FISK: Let's get Mr. Price on the
19 phone. This is ridiculous.

20 MR. SOULES: Should I?

21 MR. FISK: Yeah.

22 (Discussion off the record.)

23 Q. All right. If I could turn to page 2 of
24 your testimony, lines 1 through 13, you state that

1 "the Plants are good, efficient generation facilities
2 which benefit the State of Ohio and, if the Economic
3 Stability Program is implemented, will be able to
4 continue operating over the long term." Do you see
5 that?

6 A. Yes.

7 Q. Okay. Is it your testimony that if the
8 economic stability program is not implemented, the
9 plants won't be able to continue operating over the
10 long term?

11 A. Can you repeat that?

12 MR. FISK: Sure. Could you read that
13 back.

14 (Record read.)

15 A. I don't know. I don't know if they will
16 be able to continue to operate.

17 Q. Okay. Do you have any opinion on that
18 question as to whether they will be able to continue
19 operating if this proposed transaction is not
20 approved?

21 A. I guess I have the opinion that it is
22 very questionable.

23 Q. Okay. What's your basis for that
24 opinion?

1 A. My basis for that opinion is their profit
2 and loss statement with the way -- with the levels of
3 capacity and energy prices in the last, I don't know,
4 year or so.

5 Q. Okay. Have you seen profit and loss
6 statements for any of the plants?

7 A. Yes.

8 Q. Okay. When did you see those?

9 A. I can't say specifically when because I
10 see them on a periodic basis.

11 Q. Okay. Just as a regular part of your job
12 you see them?

13 A. Yes.

14 Q. Okay. Did you see one specifically with
15 regards to this proceeding?

16 A. The ones I've seen I don't consider to
17 have anything to do with the -- this proceeding.
18 They are actuals.

19 Q. Okay, okay. Have you seen a projection
20 of future profits and losses from the plants?

21 A. Yes, yes, I have.

22 Q. Okay. And do you know who created those
23 projections?

24 A. No, I do not.

1 Q. Okay. When did you see those
2 projections?

3 A. I don't remember.

4 Q. Okay. Do you know since August or since
5 the testimony was filed?

6 A. Yes.

7 Q. Okay. Had you seen projections before
8 your testimony was filed?

9 A. I don't remember if I saw projections
10 before. I only remember seeing projections in the
11 last few months which would have been since.

12 Q. Okay. Outside of those projections have
13 you seen any analysis showing that Sammis or the
14 Davis-Besse plants would be retired if the proposed
15 transaction were rejected?

16 A. No.

17 Q. Okay. Has anyone told you that the
18 plants would be retired if the proposed transaction
19 were rejected?

20 A. No.

21 Q. Do you recall any discussions as to
22 whether the plants would be permanently retired if
23 the proposed transaction were rejected?

24 A. No.

1 Q. Okay. Do you know who would make the
2 decision whether to retire any of the plants involved
3 in this proceeding?

4 A. By name, no. It could be a number of
5 people.

6 Q. Okay. Would you have any involvement in
7 that -- in that decision as to whether to retire a
8 plant?

9 A. I would likely be asked to provide an
10 opinion.

11 Q. Okay. With regards to just the nuclear
12 plant or also the coal plant?

13 A. Both.

14 Q. Have you ever been asked to provide such
15 an opinion?

16 A. No.

17 Q. Okay. Are you aware that the companies
18 have projected over the term of the proposed
19 transaction that -- the plants would earn
20 approximately \$2 billion, nominal dollars, over the
21 next 15 years?

22 A. Yes.

23 Q. Does it seem likely to you that
24 FirstEnergy would retire generating units that are

1 projected to earn approximately \$2 billion over the
2 next 15 years?

3 A. My opinion is it is very possible.

4 Q. Okay. And have you personally evaluated
5 the question of whether the plants would retire?

6 A. No.

7 Q. Okay. If Davis-Besse were to be retired,
8 do you know if it would need to be decommissioned?

9 A. Yes, eventually.

10 Q. Okay. And that's a requirement of the
11 Nuclear Regulatory Commission regulations?

12 A. Yes.

13 Q. And do you know if FirstEnergy has an
14 estimate of decommissioning the Davis-Besse plant?

15 A. Yes.

16 Q. Okay. And do you know approximately what
17 that cost is?

18 A. I don't remember off the top of my head.

19 MR. FISK: Okay. Let's just mark this as
20 Exhibit 4.

21 (EXHIBIT MARKED FOR IDENTIFICATION.)

22 Q. Okay. I am handing you an exhibit marked
23 4; is that correct?

24 A. Yes.

1 Q. Okay. And this document is entitled
2 "Decommissioning Cost Analysis for the Davis-Besse
3 Nuclear Power Station"; is that right?

4 A. Yes.

5 Q. Have you ever seen this document?

6 A. I don't remember.

7 Q. Okay, okay. It's dated May, 2011, is
8 that right, at the bottom?

9 A. Yes.

10 Q. Okay. Do you know if there is any more
11 recent decommissioning cost analysis for Davis-Besse?

12 A. I don't know.

13 Q. Okay, okay. If you could turn to page
14 XV.

15 A. Where's the page numbers?

16 Q. It's on the top right.

17 MR. LANG: Top right.

18 Q. And this page says "Cost Summary
19 Decommissioning Cost Elements." Do you see that?

20 A. Yes.

21 Q. And do you see the total of \$1.216
22 billion?

23 A. Yes.

24 Q. Okay. Is that -- does that -- would you

1 agree that's the approximate cost of decommissioning
2 Davis-Besse?

3 A. At the time this study was done, yes.

4 Q. Okay. And is that consistent with any
5 current understanding of potential decommissioning
6 costs of Davis-Besse that you might have?

7 A. Well, I don't know if there has been an
8 additional analysis since this one was produced.

9 Q. Okay, okay. So you don't know of any
10 reason that it would be, you know, significantly less
11 or more than that \$1.2 billion figure?

12 A. No.

13 Q. Okay. And do you know where the funding
14 for such decommissioning would come from?

15 A. Yes.

16 Q. Okay. Would that -- where would that be?

17 A. Nuclear Decommissioning Trust Fund.

18 Q. Okay. And do you know approximately how
19 much is in the Nuclear Decommissioning Trust Fund for
20 FirstEnergy?

21 A. I don't remember.

22 Q. Okay. 2.2 billion, does that sound
23 right?

24 A. I don't -- I've seen it, but I don't

1 remember.

2 MR. FISK: Okay, okay. That's all the
3 public I have.

4 MR. LANG: Okay. I think we will take a
5 lunch break at this time. 57 minutes, let's come
6 back at 1:20.

7 (Thereupon, a lunch recess was taken at
8 12:24 p.m.)

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1 Friday Afternoon Session,
2 January 16, 2015.

3 - - -

4 MR. LANG: Back on in Akron. You guys
5 have finished up. The next taker by order of
6 introduction this morning would have the infamous
7 Mr. Joe Oliker.

8 MR. OLIKER: Thank you for that
9 introduction, Mr. Lang.

10 MR. LANG: Quite welcome.

11 MR. OLIKER: Appreciate that.

12 - - -

13 CROSS-EXAMINATION

14 By Mr. Oliker:

15 Q. My questions will be short this
16 afternoon, Mr. Harden. Thankfully Mr. Fisk covered
17 much of my subject matter.

18 Going back to an issue that you discussed
19 briefly with Mr. Fisk about the ICAP rating in PJM of
20 the Sammis plant. Would you agree that for purposes
21 of calculating the unforced capacity level of Sammis,
22 you would apply the EFORD number to the ICAP level?

23 A. Could you repeat? I didn't catch the
24 last part.

1 Q. Sure. For purposes of calculating the
2 unforced capacity level of the Sammis plant, would
3 you agree you would -- you would apply the EFORD
4 rating to the ICAP level?

5 A. As I recall, yes.

6 Q. And in this proceeding, did you provide
7 calculations of unforced capacity to Witness
8 Lisowski?

9 A. I don't remember providing unforced
10 capacity to Mr. Lisowski.

11 Q. Do you know who provided that information
12 to him?

13 A. I guess let me clarify the question, make
14 sure I'm interpreting what you are asking. Are you
15 talking about the projections?

16 Q. Yes, I am.

17 A. The -- for the purposes of the
18 projections, the EFORD was provided to Mr. Lisowski.
19 That EFORD was what was provided.

20 Q. And did you provide that to him or
21 somebody under your direction?

22 A. Yes. My staff provided that to him.

23 Q. And my next question is for purposes of
24 the projections created by Mr. Lisowski, did you

1 perform the calculation of the unforced capacity
2 level that he ultimately used for determining
3 capacity revenue?

4 A. No. The capacity levels were not
5 provided to Mr. Lisowski. The capacity levels were
6 an output from the model.

7 Q. Okay. Just so I understand, you would
8 agree that the unforced capacity level that the
9 models used would be a product of ICAP, G rated for
10 EFORD.

11 MR. LANG: Objection.

12 A. I don't know. I have not personally seen
13 the details of the model.

14 Q. Okay. For example, if we -- okay. We
15 can do a hypothetical to get to the point here. Can
16 you understand me?

17 A. Yeah. We hear you right now.

18 Q. Would you agree that for determining the
19 capacity for Sammis, the revenue, that is, you would
20 take 2,130 megawatts and apply the EFORD to that
21 amount and then multiply it by the capacity price?

22 A. No, I would not agree.

23 Q. Could you explain why you disagree?

24 A. Because the model also carries out

1 predictions of how the units will be dispatched. And
2 what you just used would assume that all units are
3 operating at their ICAP value and that's not
4 necessarily how they would be dispatched.

5 Q. I think we're -- this is probably my
6 fault. I must not have asked the question very
7 clearly. I am totally talking about capacity revenue
8 here.

9 A. Oh, capacity revenue, I'm sorry, yes.

10 Q. Yeah. So and maybe that helps our
11 conversation. For purposes of Mr. Lisowski's
12 projections of capacity revenue, you would agree you
13 would only take 2,130 megawatts for Sammis and reduce
14 that by EFORD and apply that number to the projected
15 price of capacity.

16 A. I guess I don't know off the top of my
17 head. I would have to sit and think about that. I
18 haven't seen the calculations.

19 Q. Okay. And that's my next question is did
20 you review Mr. Lisowski's workpapers for accuracy?

21 A. No, I did not.

22 Q. Okay. Do you know if anybody under your
23 direction reviewed Mr. Lisowski's workpapers for
24 accuracy?

1 A. I do not know.

2 Q. Okay. Moving on to a different subject,
3 do you have responsibility or oversight regarding
4 capital expenditures for FirstEnergy Solutions power
5 plants, correct?

6 A. No, not -- not direct oversight for the
7 capital expenditures.

8 Q. But you are involved in the discussions,
9 correct?

10 A. I am involved in some discussions.

11 Q. Okay. And are you involved in
12 discussions regarding the operation and maintenance
13 expenditures?

14 A. Only to a limited degree, yes.

15 Q. Okay. Would you agree that in 2012
16 FirstEnergy Solutions began to implement cost
17 reduction measures at the power plant?

18 A. What year did you say?

19 Q. 2012.

20 MR. LANG: And are we -- I'm sorry, are
21 we talking about Sammis? I wasn't clear on the
22 question.

23 Q. I'm starting from the broader level, and
24 then I would go to Sammis, of course.

1 MR. LANG: So any FES plants?

2 MR. OLKER: Yes.

3 MR. LANG: All right. Sorry, Joe. Go
4 ahead.

5 A. No, I wouldn't -- I wouldn't agree a
6 specific cost reduction was started in 2012.

7 Q. In the past three years, has -- has cost
8 reduction measures been implemented at FES power
9 plants?

10 MR. LANG: Objection to the extent that
11 it goes beyond the scope of his testimony regarding
12 Sammis and Davis-Besse but answer, if you can.

13 A. No specific reduction or reduction
14 strategy to my knowledge.

15 Q. And then my next question is kind of more
16 focused based. You don't know of any specific cost
17 reduction measures that have been implemented at the
18 Sammis power plant in the past few years.

19 A. No, I do not.

20 Q. And just to be clear, now, if I ask that
21 same question regarding capital expenditures, would
22 your answer be the same?

23 A. Which question, please?

24 Q. And if this is confidential, please let

1 me know, but in the past three years has FirstEnergy
2 Solutions started deferring capital expenses at the
3 Sammis plant?

4 A. I have to say I don't know.

5 Q. Okay. And in the past three years, has
6 FirstEnergy Solutions started deferring capital
7 expenditures at the Davis-Besse plant?

8 A. Not to my knowledge.

9 Q. Okay. If I could have just one minute, I
10 think I might be done.

11 Just to follow up on one issue that
12 Mr. Fisk asked earlier, I just wanted to make sure I
13 heard your answer correctly and, I'm sorry, maybe it
14 was a bad question, you did not provide a projection
15 of potential variable cost of operation expenses
16 associated with carbon, correct?

17 A. That's correct.

18 Q. And you were not aware of any individual
19 providing any such projection for FirstEnergy
20 Solutions.

21 A. No.

22 MR. OLIVER: I believe those are all the
23 questions I have. Thank you, Mr. Harden.

24 MR. LANG: And next on my list I had

1 Frank Darr.

2 MR. DARR: Thank you.

3 - - -

4 CROSS-EXAMINATION

5 By Mr. Darr:

6 Q. Mr. Harden, my name is Frank Darr, and I
7 am here on behalf of Industrial Energy Users. If you
8 would, please, turn to page 3 of your testimony and
9 I'm looking at the paragraph beginning on line 14
10 with regard to the steam generators. Please tell me
11 when you're there.

12 A. Yes, I'm there.

13 Q. Could you indicate for us when the unit,
14 by unit I mean Davis-Besse, was out of service for
15 the replacement of the steam generators?

16 A. I don't remember the exact dates.

17 Q. Can you give us a general range?

18 A. It was in the February to May timeframe.

19 Q. The generators that were replaced, is
20 there an expected life to the new units?

21 A. There would be a design life, not an
22 expected life.

23 Q. What is the design life of the new
24 generator?

1 A. I don't know specifically.

2 Q. Is it measured in years? Hours?

3 A. It's measured in years.

4 Q. Would it be more than 15 years?

5 A. Yes, it would.

6 Q. Would it be more than 20?

7 A. Yes.

8 Q. The original generators were on-site for,
9 I believe, roughly 40 years. Would the design life
10 of the new generators be assumed to be in that same
11 range?

12 A. I would assume them to be in at least
13 that same range.

14 Q. Were the generators warrantied, again, I
15 am referring to the new generators, warrantied for a
16 design life that you've just described?

17 A. I don't remember the details of the
18 warranty on the generators.

19 Q. They were warrantied?

20 A. There was a warranty, yes.

21 Q. At the time that you replaced the steam
22 generators, there was also an opportunity -- an
23 opportunity to replace the reactor cooling pumps; is
24 that correct?

1 A. Yes.

2 Q. The existing or -- let me rephrase that.

3 The reactor cooling pumps that were taken
4 out, as I understand it, were scheduled to be
5 refurbished; am I correct?

6 A. The reactor coolant pump motors were
7 taken out for refurbishment.

8 Q. And those are going to be reused at some
9 later time; is that correct?

10 A. Yes.

11 Q. And my understanding is that the motors
12 will be reused with refueling outage 191(H). Are you
13 familiar with that?

14 A. I'm not familiar with the term you just
15 used for the refueling outage, the 191(H).

16 Q. I've located that term in a report that
17 was filed with the state commission that reviews the
18 safety of the plant. It contained a reference to a
19 refueling outage. Do you know when the expected
20 refueling outage is that -- where you -- let me
21 rephrase that.

22 Do you know when you anticipate reusing
23 the motors that were refurbished? Keep it simple.

24 MR. LANG: Objection to form. Go ahead.

1 A. I don't remember specifically.

2 Q. And you're not familiar with the term
3 191(H) refueling outage; is that correct?

4 MR. LANG: Asked and answered. Go ahead.

5 A. That is correct.

6 Q. A matter came up yesterday during the
7 deposition concerning the renegotiation of coal
8 contracts for the Sammis facility. Are you familiar
9 with the renegotiation of those contracts?

10 A. I'm generally familiar.

11 Q. Do you know what the term of the new
12 contracts is? And if this is confidential, please
13 let me know.

14 MR. LANG: I'm confident that would be.

15 A. That would be confidential.

16 MR. LANG: There's things I wonder about
17 but that would definitely be confidential.

18 MR. DARR: Okay. Then we will hold that
19 matter until after we complete this portion of the
20 public session.

21 That's all the questions I have. Thank
22 you.

23 MR. LANG: All right. Thanks, Frank.

24 Colleen Mooney was next on my list.

1 Colleen, are you there? I don't think she's on.

2 OCC, Mike Schuler.

3 MR. SCHULER: Yes, thank you.

4 - - -

5 CROSS-EXAMINATION

6 By Mr. Schuler:

7 Q. Good afternoon, Mr. Harden. My name is
8 Mike Schuler. I'm an attorney with the Office of
9 Ohio Consumers' Counsel.

10 I wanted to start off by having you turn
11 to page 4 of your testimony. Let me know when you're
12 there.

13 A. I'm there.

14 Q. On lines 16 through 18, you reference the
15 operating license of Davis-Besse that is currently
16 under review, correct?

17 A. That is correct.

18 Q. The renewal application, I apologize.
19 You filed a license renewal application, excuse me,
20 on August, 2010, that is currently under review,
21 correct?

22 A. Yes.

23 Q. And what is the current status of the
24 license renewal application for Davis-Besse?

1 A. It is still under review with the Nuclear
2 Regulatory Commission.

3 Q. Can you explain to me the process of a
4 license renewal?

5 A. From a high level.

6 Q. That would be fine.

7 A. Okay. In general terms the -- there's a
8 lot of guidance documents for what goes into the
9 application but you prepare the application in
10 accordance with the regulatory guidance documents.
11 You submit it to the Nuclear Regulatory Commission.
12 You will typically go through a long period of
13 requests for additional information which are
14 questions from the Nuclear Regulatory Commission and
15 responses. There will be opportunities along the
16 way, and I can't remember the specific opportunities,
17 for public comment.

18 There is an environmental impact
19 statement that is written by the Nuclear Regulatory
20 Commission. They draft a safety evaluation report
21 for the plant. The application, once the Nuclear
22 Regulatory Commission staff is ready, would typically
23 go through a review by a subcommittee of the advisory
24 committee on reactor safeguards. And then once it's

1 gone through the subcommittee, they would pass it on
2 to the full committee of the advisory committee of
3 reactor safeguards for its final reviews prior to
4 being approved.

5 Q. Thank you. Is there a due process
6 portion such as a notice and hearing on the renewal
7 application?

8 MR. LANG: Objection to the extent
9 it's -- objection to the extent you are asking him
10 that in terms of a legal term of due process. But to
11 the extent you can answer, go ahead.

12 A. Okay. To the extent of ignoring the
13 legal terms, there is a -- there is a process for
14 public comments and intervention. There may or may
15 not be a hearing.

16 Q. You mentioned intervention. Do you
17 recall what parties have intervened in this
18 particular application?

19 A. No, I do not recall all the parties.

20 Q. You also mention requests for additional
21 information. Has FirstEnergy Solutions received such
22 requests for additional information from NRC?

23 A. Yes.

24 Q. And based on the process that you just

1 described to me previously, what step are you
2 currently in in the process for this renewal
3 application?

4 A. We have answered all the requests for
5 additional information that I'm aware of and at least
6 at this point do not expect to receive any more. The
7 environmental impact statement is being drafted, and
8 I can't predict when the NRC will issue but would
9 expect it to be issued in the near future. And then
10 we would expect to have the advisory committee on
11 reactor safeguards subcommittee scheduled a little
12 later this year, then followed later beyond that by
13 the full committee for its -- before its final
14 approval.

15 Q. Have you been a part of other nuclear
16 plant license renewal processes?

17 A. Yes, I have.

18 Q. How many times?

19 A. Once.

20 Q. On what plant?

21 MR. LANG: Objection, beyond the scope.

22 Go ahead.

23 A. Palisades nuclear plant.

24 Q. How long did the process take for that

1 particular application?

2 MR. LANG: Continuing objection. Go
3 ahead.

4 A. From what point are -- you know, from
5 development or? At what point are you asking for the
6 length?

7 Q. From the time of the application.

8 A. I don't remember specifically. It was a
9 couple of years.

10 Q. When you say a couple, do you mean two?
11 Three? Seven?

12 A. I'm thinking it was on the order of three
13 years.

14 Q. Would you say that is average for the
15 time it takes to approve such an application to be
16 approved or disapproved?

17 MR. LANG: Objection.

18 A. No. In my opinion I would not say that's
19 average. I don't believe you -- at least sitting
20 here I couldn't tell you an average because each
21 plant that I'm aware of that is submitted I am not
22 aware of -- I haven't stayed pace with every one of
23 them, but they have all taken different lengths of
24 time depending on intervention, the amount of

1 intervention, those types of things.

2 Q. On page 4, line 21 of your testimony, you
3 state that you have no reason to believe
4 Davis-Besse's operating license will not be approved
5 for renewal. What is the basis for that statement?

6 A. The basis for that statement would be
7 knowledge of the requirements to go into an
8 application that are required to receive that
9 approval and quite a bit of experience having had a
10 personal involvement in putting one of those
11 applications together for the referenced Palisades
12 plant and the fact that all the appropriate
13 information and all the appropriate requirements in
14 my opinion have been provided in that application to
15 achieve a successful renewal once the reviews are
16 finished and any associated contentions are
17 dismissed.

18 Q. You would agree that it is possible that
19 the license renewal will not be granted, correct?

20 MR. LANG: Objection.

21 A. I view it as unlikely.

22 Q. Unlikely yet possible?

23 MR. LANG: Objection.

24 A. Unlikely but possible.

1 Q. Thank you. If in the event the license
2 was not renewed, what effect will that have on the
3 PPA?

4 A. The -- well, the PPA is not written and
5 in place yet.

6 Q. Let me rephrase. What effect -- if the
7 license renewal is not granted, what effect will that
8 have on the PPA term sheet?

9 A. Per Section 4 of the term sheet titled
10 "Facilities," it describes that the Davis-Besse power
11 station being included in the agreement is subject to
12 the NRC renewing the license. Therefore, if the
13 license were not reviewed, the plant would simply be
14 dropped from the transaction.

15 Q. Okay. Would FirstEnergy Solutions still
16 pursue the PPA in that event?

17 A. I can't say. I don't know.

18 Q. Okay. The W.H. Sammis plant was idled to
19 run on an as-needed basis in 2012, correct?

20 A. Yes.

21 Q. Do you recall approximately when in 2012
22 that occurred?

23 A. No, I do not.

24 Q. It is not currently in an idle status to

1 run on an as-needed basis any more, correct?

2 A. That is correct.

3 Q. When did that change occur?

4 A. I don't remember specifically.

5 Q. Can you give an approximation?

6 A. I'm sorry. I can't because I do not
7 remember.

8 Q. So you don't recall if it was 2013 or
9 sometime in 2014?

10 A. Yeah. I just don't remember.

11 Q. Okay. Do you know why it was taken out
12 of the idle status?

13 A. It had to do with economics, and I
14 wouldn't want to answer any further on this portion.
15 The rest would be confidential.

16 Q. Okay. I suspected that might be the
17 answer, but I wanted to check. Thank you. The W.H.
18 Sammis plant was subject to a desulfurization
19 retrofit, correct?

20 A. Yes.

21 Q. I think on page 8 of your testimony, line
22 9, you refer to that as a WFGD retrofit.

23 A. Yes.

24 Q. Is that correct?

1 A. Yes.

2 Q. What was the start and end date of the
3 WFGD retrofit?

4 A. Oh, I don't remember off the top of my
5 head.

6 Q. Do you know if there was a revenue
7 analysis that was completed prior to conducting the
8 WFGD retrofit?

9 A. I do not know.

10 Q. If I could turn you to page 5 of your
11 testimony, I apologize for bouncing you around, but
12 page 5, line 15, let me know when you're there.

13 A. I am there.

14 Q. Speaking with respect to the W.H. Sammis
15 plant, you mention that on lines 4 to 15 \$52 million
16 spent each year on Ohio coal alone, correct?

17 A. That is correct.

18 Q. What do you mean by Ohio coal?

19 A. Coal that came from within the state of
20 Ohio.

21 Q. As in it was mined in Ohio?

22 A. I guess I can't specifically answer as to
23 whether it was actually mined or not based upon what
24 I know of the contract. I don't know enough to -- on

1 the contract to answer further than that.

2 Q. So then when you said it came from Ohio,
3 what were you basing that upon?

4 A. Knowing it's delivery from an entity in
5 Ohio.

6 Q. In other words, it was delivered from an
7 Ohio company.

8 A. Or from an entity that had operations in
9 Ohio.

10 Q. But you do not know where it was
11 specifically mined though.

12 A. No, I do not.

13 MR. SCHULER: Could we go off the record
14 for a second?

15 MR. LANG: Sure.

16 (Discussion off the record.)

17 MR. SCHULER: Back on the record. If I
18 could have the document that is OCC Set 11-INT-231
19 marked as OCC Exhibit 1.

20 (EXHIBIT MARKED FOR IDENTIFICATION.)

21 Q. Mr. Harden, have you seen this document
22 that is labeled as OCC Exhibit 1?

23 A. Yes.

24 Q. And you recognize this as a discovery

1 response based on a discovery request propounded by
2 OCC?

3 A. Yes.

4 Q. And you helped prepare this response,
5 correct?

6 A. Yes.

7 Q. And the response that is provided here
8 identifies the total number of employees that were
9 employed at the W.H. Sammis generation plant at the
10 end of each year from 2009 to 2014?

11 A. Yes.

12 Q. What is your understanding of the term
13 "employee"?

14 A. Permanent FirstEnergy employees from what
15 I remember when this was put together.

16 Q. And those permanent FirstEnergy employees
17 would be located at the W.H. Sammis plant?

18 A. Yes.

19 Q. Is that what these numbers represent?

20 A. Yes.

21 Q. This does not include independent
22 contractors, does it?

23 A. No, I do not believe so.

24 Q. Do you know how many of the employee

1 numbers listed -- strike that.

2 Do you know how many of the employees
3 listed in this document are residents of Ohio?

4 A. No, I do not.

5 Q. Would you agree with me that the total
6 number of employees at the W.H. Sammis plant have
7 declined from 2009 to 2014?

8 A. Yes.

9 Q. Can you explain why that number has
10 declined?

11 A. I can give several reasons. One is as we
12 began operating all of the generating units more in a
13 fleet approach than a station-by-station approach,
14 more and more functions have been centralized where a
15 central support group can provide a lot of the
16 function rather than each individual site providing
17 its own function. And some of the reduction has been
18 through attrition. There may be other reasons but
19 those are what I can remember.

20 Q. Okay. You mentioned a fleet approach.
21 Does that mean that some employees work at multiple
22 locations?

23 A. That would mean there are employees that
24 do work at multiple locations, so yes.

1 Q. Are any of the numbers on OCC Exhibit 1
2 representing those type of employees that work at
3 multiple locations?

4 A. I do not believe so.

5 Q. Do you have any projections of how many
6 employees will be at W.H. Sammis for the next 15
7 years?

8 A. No, I do not.

9 Q. What about for the next 10 years?

10 A. No, I do not.

11 Q. The next five?

12 A. No. Typically I do not do forward
13 projections on number of employees.

14 Q. Does anyone else do this type of
15 projection in the company?

16 A. There are, I guess, not -- there are
17 expense projections that make assumptions on number
18 of employees but not a specific projection on number
19 of employees.

20 Q. I am not sure I understand the difference
21 there. Could you explain that to me?

22 A. I have not seen any explicit projections
23 on the actual number of employees. I have seen
24 projections on the operating and maintenance expenses

1 which includes the salaries of employees.

2 Q. And does that projection specifically
3 delineate how many salaries are being paid out?

4 A. None that I have seen. There's a total
5 but not a delineation.

6 Q. Based on your recollection of those
7 projections, is that particular number declining on
8 the projections?

9 A. I do not know. The projections I've seen
10 have been a total expense projection and not just --
11 you know, salaries weren't delineated out.

12 Q. Okay.

13 MR. SCHULER: At this time could I have
14 the other document OCC Set 11-INT-229 marked as OCC
15 Exhibit 2.

16 (EXHIBIT MARKED FOR IDENTIFICATION.)

17 MR. LANG: Okay. It has been marked.

18 MR. SCHULER: Thank you.

19 Q. Mr. Harden, do you recognize the document
20 that has been labeled as OCC Exhibit 2?

21 A. Yes.

22 Q. And you recognize this as a FirstEnergy
23 response to an OCC discovery request?

24 A. Yes.

1 Q. And did you help prepare this particular
2 response?

3 A. Yes, I did.

4 Q. And the response asks to "identify the
5 total number of employees that were employed at the
6 Davis-Besse generation plant at the end of each year
7 from 2009 to 2014," correct?

8 A. That is correct.

9 Q. And the response provides numbers for the
10 total nuclear group, special projects, security, and
11 engineering personnel, correct?

12 A. That is correct.

13 Q. Are these all employees that are located
14 at the Davis-Besse plant?

15 A. This would be all FirstEnergy employees.
16 It would not include contractors.

17 Q. None of these numbers include independent
18 contractors?

19 A. That's correct.

20 Q. And maybe I should clarify my prior
21 question. Of the numbers listed here do all of those
22 employees work at the Davis-Besse plant itself?

23 A. Yes.

24 Q. We had talked about a complete

1 organization in the prior discussion on OCC Exhibit
2 1. Are any of these employees subject to that same
3 type of set up where they might work at multiple
4 locations?

5 A. None of the -- I guess let me answer this
6 way, none of the -- none of the employees in the
7 numbers on this exhibit would be employees that due
8 to the definition of their job function regularly
9 support other stations. That doesn't mean they
10 wouldn't from time to time be asked to go to one of
11 the other stations but as a job function, these
12 employees -- these numbers represent the employees
13 that most of their time is spent directly supporting
14 the Davis-Besse site.

15 Q. Does that include employees that would be
16 based at the company headquarters?

17 A. No, no, it does not. And nor would it
18 include the numbers of employees whose office is at
19 Davis-Besse but are considered fleet employees that
20 regularly support all the sites.

21 Q. You said it does not include those?

22 A. That is correct.

23 Q. Thank you. Do you know how many of these
24 employees reside in Ohio?

1 A. No, I don't.

2 Q. And would you agree with me that the
3 number of employees at the Davis-Besse plant declined
4 from 2009 to 2014?

5 A. Yes.

6 Q. Can you explain why that is?

7 A. I can explain in part. I'm not sure I
8 can be all inclusive. Some of the similar
9 explanation I used on the numbers for the Sammis
10 plant apply here in that since 2009, there's been a
11 more concentrated effort on the efficiencies game by
12 continuing to improve functions that can be operated
13 fleetwide as opposed to site specific. And there is
14 some attrition in those numbers and some of that
15 reduction is likely attributed to some of the capital
16 investment that was made that results in the need for
17 less employees.

18 Q. Going forward will there be a continued
19 effort on efficiency?

20 A. There will always be a continuous look
21 for methods of improving efficiency.

22 Q. Does that mean that there will be more
23 attrition?

24 A. I don't know. That would be speculation.

1 Q. You said that you couldn't answer the
2 question all inclusively. Why is that?

3 A. Because there may be reasons that I can't
4 remember sitting here.

5 Q. Fair enough.

6 A. Yeah. I gave you the ones I could
7 remember.

8 Q. I can't ask for more than that. Do you
9 have any projections of how many employees will be at
10 the Davis-Besse plant in the future?

11 A. No specific projections.

12 Q. Do you have the same expense projections
13 that we discussed with regard to the W.H. Sammis
14 plant?

15 A. Yes.

16 Q. That does not delineate the specific
17 number of employees.

18 A. It does not.

19 Q. And those projections are based on the
20 approval of rider RRS?

21 MR. LANG: Objection.

22 A. No. Those projections are our internal
23 projections of, you know, the required expenses for
24 continuing to operate the plant.

1 MR. SCHULER: All right. I have no
2 further questions for the public record. Thank you
3 very much, Mr. Harden.

4 MR. LANG: Next on the list is Madeline
5 Fleisher.

6 MS. FLEISHER: Yes, okay. I should not
7 have too much.

8 - - -

9 CROSS-EXAMINATION

10 By Ms. Fleisher:

11 Q. Let's go ahead and get started.
12 Mr. Harden, my name is Madeline Fleisher. I
13 represent the Environmental Law & Policy Center. And
14 I just wanted to ask you a few questions to follow up
15 on your discussion with Mr. Fisk about the compliance
16 of the Sammis CSAPR. And do you understand when I
17 refer to CSAPR, that's the Cross-State Air Pollution
18 Rule, correct?

19 A. Yes.

20 Q. And you -- could you just confirm my
21 understanding of your testimony that you discussed
22 CSAPR compliance with Mr. Jurusik?

23 A. Yes.

24 Q. Is that correct?

1 A. That is correct.

2 Q. Okay. And in your discussions with him,
3 did you discuss the substance of the CSAPR rule?

4 A. Yes, to some extent. I can't --

5 Q. Okay. And did -- sorry. Did you discuss
6 the fact that it's designed to ensure compliance with
7 particular National Ambient Air Quality Standards?

8 A. Yes, we did discuss that.

9 Q. And if I refer to those as NAAQS going
10 forward, will you understand what I mean?

11 A. Yes.

12 Q. Great. And did you discuss which NAAQS
13 the CSAPR rule was designed to ensure compliance
14 with?

15 A. Yes, we did.

16 Q. Did you discuss the fact that those NAAQS
17 may change in the future?

18 A. Yes, we did.

19 Q. And did you discuss whether the
20 requirements under CSAPR might change in the future
21 if those NAAQS would change?

22 A. We discussed that possibility, yes.

23 Q. And did you discuss whether Sammis would
24 continue to be in compliance with CSAPR if the --

1 those NAAQS become more stringent?

2 A. Yes, we did have discussions on that.

3 Q. And did you reach any conclusions over
4 the course of those discussions?

5 A. Yes.

6 Q. And what were your conclusions?

7 MR. LANG: I don't know if this is
8 confidential but.

9 THE WITNESS: I don't believe so.

10 MR. LANG: Okay.

11 A. I will stay out of confidential. At
12 least I believe I can stay out of confidential space.
13 We discussed that we believe Sammis will continue to
14 be in compliance for what we know on the horizon
15 today, and we also discussed the essence of cap and
16 trade and in the -- and the ability to purchase
17 allowances if needed.

18 Q. Okay. A couple of follow-up questions
19 about that answer. When you said that you believe
20 Sammis would remain in compliance for what you know
21 on the horizon today, does -- what is it that you
22 know is on the horizon or what were you referring to
23 with that answer?

24 A. We are referring to the current NAAQS and

1 what our environmental group believes will likely be
2 implemented in the foreseeable future that they can
3 predict.

4 Q. And does that include the pending update
5 to the 2008 ozone NAAQS?

6 A. Yes.

7 Q. Okay. And when you talked about the
8 ability to purchase allowances, how -- what role will
9 that play in compliance for Sammis in your view?

10 A. Our opinion right now is that that's I'll
11 say a contingency. We believe the plant will
12 continue to be in compliance. If needed, the ability
13 to purchase allowances exists.

14 Q. Okay. Let's break that down a little bit
15 further. Am I correct in understanding that you're
16 saying you believe Sammis will continue to be in
17 compliance without purchasing allowances even if some
18 of the NAAQS indicated in the CSAPR rules become more
19 stringent?

20 A. Our judgment on what we believe will be
21 implemented we believe Sammis can continue to comply
22 with.

23 Q. Okay. So am I correct then in
24 understanding that you view the need to purchase

1 allowances as something that is unlikely to happen?

2 A. Yes.

3 Q. Okay. And is the possibility of having
4 to purchase allowances incorporated anywhere in the
5 forecast for the Sammis plant?

6 MR. LANG: Objection, beyond the scope,
7 but if you know.

8 A. I don't know.

9 Q. Am I -- my apologies if I am not
10 remembering correctly, but did you provide
11 information about costs for the Sammis plant to be
12 incorporated into the Lisowski projection?

13 A. Yes, for capital needs, capital
14 expenditures.

15 Q. Okay. But that -- the cost -- I guess
16 the cost information you provided for Mr. Lisowski's
17 analysis did not include any cost related to the
18 purchase of the allowances?

19 A. That is correct. Purchase after
20 allowances would not be a capital expenditure.

21 Q. Okay. What sort of expenditure would
22 that be categorized as?

23 A. That would be on the expense, you know,
24 operations and expenses for the plant rather than

1 capital needs.

2 Q. But would that be the same as operations
3 and maintenance?

4 A. Yes.

5 Q. Okay. And as far as you are aware, was
6 the potential need to purchase allowances
7 incorporated in any of the operations and maintenance
8 costs forecasts?

9 A. I don't know. I did not have input on
10 the operation and maintenance expense.

11 Q. Okay. Do you know -- did you talk to Mr.
12 Jurusik about the potential cost of allowances at
13 all?

14 A. Not that I remember.

15 Q. Do you know if he talked to anyone else
16 about that issue?

17 A. I do not know.

18 Q. And going back to your conclusion, is
19 that Sammis -- I am just summarizing here -- would
20 probably not need to purchase allowances, what was
21 that conclusion based on?

22 A. Based upon the emissions today with the
23 what I would call state-of-the-art equipment that we
24 have installed, particularly on units 6 and 7 with

1 the SCRs, and what the typical dispatch of the plant
2 has been and would be expected to be. It's a
3 judgment forecast based upon historical experiences.

4 Q. Okay. You mean historical experiences,
5 emissions from the Sammis plant; is that correct?

6 A. That's correct.

7 Q. And did your analysis -- or Mr. Jurusik's
8 analysis involve any emission modeling of any kind?

9 A. Not that I am aware of.

10 Q. Okay. And are there any documents
11 commemorating or relating to that analysis?

12 MR. LANG: Objection.

13 A. Yeah. I said there's no analysis or
14 modeling was done that I am aware of.

15 Q. Sorry. I took two steps ahead. I was
16 asking are there any documents or written analysis
17 related to your overall conclusion that Sammis would
18 continue to comply with CSAPR even if the related
19 NAAQS become more stringent?

20 A. None other than our records of historical
21 emissions.

22 Q. Okay. And moving to one other different
23 topic, did you discuss with Mr. Jurusik whether the
24 Sammis plant might need to undertake any heat rate

1 improvement in order to comply with the final 111(d)
2 rules?

3 A. Yes, we did.

4 Q. And what did you conclude from that
5 discussion?

6 A. That it's too early to tell what we would
7 need to do relative to whether or not heat rate
8 improvements are going to be needed.

9 MS. FLEISHER: Okay. That's all I have.
10 Thank you.

11 MR. LANG: Thank you. And the last name
12 I have on my list is Kim Bojko.

13 MS. BOJKO: Thank you.

14 - - -

15 CROSS-EXAMINATION

16 By Ms. Bojko:

17 Q. Good afternoon, Mr. Harden. I am going
18 to do my best not to reask any questions. I might
19 need to just for foundation, foundational purposes.

20 Sir, I represent the Ohio Manufacturers'
21 Association Energy Group. Did you state earlier this
22 morning that you did prepare your testimony?

23 A. Yes, I did.

24 Q. And your response to Mr. Fisk you are

1 testifying today on behalf of the companies; is that
2 correct?

3 A. That is correct.

4 Q. The regulated utilities? I'm sorry.

5 A. Yes.

6 Q. Okay. Can you hear me okay, sir?

7 A. Yes, I can.

8 Q. Oh, great. Who asked you to prepare the
9 testimony for the company?

10 A. Specifically who I do not remember.

11 Q. Do you know which entity -- which person
12 or which entity that person that did ask you would
13 have been working for? Was it somebody at the
14 regulated entities that asked you to prepare or
15 somebody at FirstEnergy Solutions? Was it somebody
16 at your subsidiary FENOC?

17 A. I honestly don't remember.

18 Q. Who did you talk to about preparing your
19 testimony? Who told you what the purpose of it would
20 be?

21 MR. LANG: Objection to the extent she's
22 seeking legal discussions. To the extent you can
23 answer without divulging legal communications, you
24 can do so.

1 A. Can you repeat the question? I'm sorry.

2 Q. Sure. I am trying to figure out if
3 someone talked to you before you started drafting
4 your testimony, since you do not work for the utility
5 companies, if someone talked to you about what that
6 testimony would entail.

7 A. I remember having discussion with legal
8 counsel and beyond that I don't remember any others.

9 Q. And do you know on whose behalf the legal
10 counsel is representing?

11 A. I can't say for certain, no.

12 Q. And, sir, what do you believe the purpose
13 of your testimony is?

14 A. The purpose of my testimony -- I believe
15 the purpose of it is to support the companies from a
16 technical perspective relative to the operating plans
17 that are proposed to be included in the agreement.

18 Q. And as you were drafting your testimony,
19 you understood that you would be a witness for the
20 regulated companies and not FENOC; is that correct?

21 A. That is correct.

22 Q. And you similarly believe that you were
23 going to not be a witness for FirstEnergy Solutions;
24 is that correct?

1 A. At the time I was asked to do this, that
2 is correct. It was solely with the intention of
3 being a witness for the companies.

4 Q. Okay. And, sir, to your knowledge is
5 there anyone -- any employee that worked for the
6 regulated utilities that offers similar testimony in
7 this proceeding?

8 A. I'm sorry. Can you repeat that question?

9 Q. Sure. To your knowledge is there any
10 other employee of the regulated entities or is there
11 any other witness that you believe is testifying on
12 behalf of the regulated entities regarding the
13 subject matter of your testimony?

14 A. Regarding the same subject matter? I
15 don't think so.

16 Q. And, sir, did you state you were on the
17 FES team regarding the proposed transaction? Do you
18 know the proposed transaction to be the purchase
19 power agreement that entails the term sheet that you
20 discussed this morning?

21 A. Yes. That is what I interpret it to be
22 and, yes, I was on the FES team.

23 Q. Thank you. Thank you for backing up and
24 answering both. I was making sure we were talking

1 about the same -- using the same terminology first.

2 So you were on the FES team.

3 A. Yes.

4 Q. And, sir, did you have a role in drafting
5 the application that's pending before the Public
6 Utilities Commission?

7 A. No, I did not.

8 Q. Okay. Did you have a role in the
9 creation of the rider R -- RSR -- RRS?

10 A. No, I did not have a role in creation of
11 the rider.

12 Q. And you did have the understanding that
13 the plants that you're discussing in your testimony
14 are the subject plants of the term sheet that would
15 create the purchase power arrangement between
16 FirstEnergy and FirstEnergy Solutions; is that
17 correct?

18 A. Yes, that's correct.

19 Q. Okay. And you -- do you believe that
20 there are other issues and aspects of the economic
21 stability program that the FirstEnergy companies are
22 proposing?

23 MR. LANG: Objection, beyond the scope of
24 his testimony. You can answer, if you can.

1 A. I understand that the -- there is an ESP
2 and there are many pieces of it but I do not have
3 knowledge of all of it.

4 Q. Okay. Well, let's talk about that. I
5 used the term economic stability program, and I think
6 that's different from an electric security plan which
7 is what I would call an ESP. Were you referring to
8 an electric security plan when you just used the term
9 ESP?

10 A. I guess in rephrasing my answer I would
11 say I don't have knowledge or involvement of either.

12 Q. Okay. And, thus, you had no role in
13 preparing or analyzing, reviewing any of the other
14 provisions of either the electric security plan or
15 economic stability program; is that right?

16 A. That is correct.

17 Q. And that's all you are testifying to as
18 well; is that correct?

19 A. Could you clarify that?

20 Q. Sure. I'm sorry. The only thing you're
21 testifying to is what's with regard to the proposed
22 transaction, no other terms or conditions of the
23 electric security plan or the economic stability
24 program.

1 MR. LANG: Objection but, you know,
2 his -- his testimony is in front of you as to what he
3 is testifying about.

4 MS. BOJKO: Well, I understand that. I
5 am trying to ask the witness what he believes his
6 testimony is and what his testimony on the stand will
7 be.

8 A. I believe that my testimony solely
9 surrounds the -- the transaction and proposed
10 purchase power agreement that --

11 Q. Okay. Thank you. Sorry. Were you
12 finished?

13 A. Yes.

14 Q. Okay. And, sir, who do you believe you
15 are appearing on behalf of in the deposition today?

16 A. I'm a witness on behalf of the companies,
17 Ohio Edison, Cleveland Electric Illuminating, and
18 Toledo Edison.

19 Q. Is that all you believe you are appearing
20 on behalf of today?

21 A. That was the primary purpose of my
22 witness testimony and my appearance today.

23 Q. And are there any ancillary purposes,
24 sir?

1 A. I guess I need advice from legal counsel
2 relative to a subpoena that I know exists, but I
3 really don't understand all the details of everything
4 that's gone back and forth on.

5 MR. LANG: As a result of that answer, I
6 will object and say calls for a legal conclusion.

7 Q. Well, sir, did you -- related to the
8 subpoena, did you believe that -- and from everything
9 you've heard today, did you believe that you were
10 offering some testimony today on behalf of your
11 participation on the FES team?

12 A. Yes, my participation on the FES team and
13 the term sheet was my understanding.

14 Q. And the term sheet would have been on
15 behalf of FirstEnergy Solutions; is that right?

16 A. That's correct.

17 Q. Okay. Do you know, sir, why FirstEnergy
18 Solutions chose the 15 years as a term in the term
19 sheet?

20 A. Not specifically.

21 Q. Do you recall a discussion regarding the
22 term in your team meeting?

23 A. I recall some discussion, yes.

24 Q. And what was that discussion around?

1 A. That discussion was around the notion
2 that the term needed to be long enough that -- that
3 the -- that there would be a net benefit to the
4 customers in Ohio.

5 Q. And, sir, do you know what other issues
6 were negotiated in the term sheet that you went
7 through this morning?

8 MR. LANG: Objection. I believe that was
9 covered extensively this morning. Asked and
10 answered.

11 A. I guess I need more specifically what you
12 are looking for. We this morning talked about many
13 aspects of what was discussed and negotiated on the
14 term sheet.

15 Q. Okay. Well, one second. I'm sorry. I
16 think my term sheet got up and left the room.

17 Okay. Well, let's talk a little bit more
18 about that. I was using the term negotiated as
19 meaning issues that were contentious and there was a
20 lot of back and forth and I didn't take that as every
21 subject matter that you discussed this morning. But
22 are you saying that all the terms that you discussed
23 this morning were -- were negotiated between the
24 parties back and forth occurred between the parties

1 on those issues?

2 A. Yes. What I covered this morning were
3 all the things that I recalled having discussion and
4 the negotiations back and forth as well as the -- the
5 issues that required the most discussion.

6 Q. Okay. So the -- and maybe it was just
7 the terminology or misunderstanding you. When you
8 say you had discussions, I thought those were
9 internal with the FES team. Are you using the word
10 discussions to mean discussions between FES and FE?

11 A. Well, I was not present when FES and the
12 companies had their discussions, but after each of
13 those meetings, the -- at the next FES team meeting
14 would be discussed here were the issues that still
15 require the most negotiation to come to agreement.

16 Q. Okay. And those issues to you were
17 the -- what I understood you to say this morning
18 those issues were the unit contingent and you said
19 the description of the facilities that you worked on.
20 I am assuming that this was no back and forth about
21 the description. You just assisted in that?

22 A. That's correct. I described that as an
23 area where I provided input.

24 Q. Okay. And so the unit contingent was one

1 that needed some negotiations as I understood you; is
2 that correct?

3 A. That is correct.

4 Q. And then you also talked about operating
5 work?

6 A. Yes.

7 Q. What was that?

8 A. Specific to the use of the term good
9 utility practice.

10 Q. Okay. And that's in the unit contingent
11 provision; is that right?

12 A. That term is in unit contingent as well
13 as in Section 11 for operating work.

14 Q. Okay. And then the other item I believe
15 you mentioned was contract price; is that right?

16 A. I mention that as an area where I
17 provided input.

18 Q. Input. And then under the unit
19 contingent there was also some discussion with regard
20 to the 180 days; is that accurate?

21 A. That is accurate.

22 Q. Okay. And you were talking this morning
23 about the 180 days. I just want to make sure I
24 understand. You used the word "replacement

1 services," and when you use that word services --
2 "replacement services," you are including capacity,
3 energy, ancillary services, and the environmental
4 attributes; is that right?

5 A. Yes.

6 Q. Okay. So I also heard you say something
7 that I need some help with. You stated that the --
8 you believed that after the 180 days when FirstEnergy
9 Solutions is required to replace those services or
10 provide replacement equivalent, do you recall that?

11 A. Yes.

12 Q. Okay. You said -- you made a statement
13 that there would be replacement costs passed on to
14 FirstEnergy. Do you recall that?

15 A. No. I don't believe that's what I said.

16 Q. Okay. Maybe you could clarify. I
17 thought that's what you were trying to look for in
18 the document, and Mr. Fisk said you didn't have to
19 search for it.

20 A. That's correct, but I don't believe you
21 captured correctly what I said and that's --

22 Q. Okay. Please --

23 A. What I said, you know, without reading
24 the entire document and finding the explicit words my

1 understanding was that if good utility practices were
2 used for the first 180 days, FES would not be
3 required to provide replacement services, and
4 services included all the things you had read through
5 a few minutes ago, but after the 180 days, it was the
6 responsibility of FES to find and provide
7 replacement.

8 Q. Okay. And then I thought Mr. Fisk asked
9 you a follow-up question that asked you if those
10 replacement costs to do that, that FES incurs,
11 whether those would then be passed on to FirstEnergy,
12 and I thought your response was "yes." Is that not
13 correct?

14 MR. LANG: Objection, asked and answered
15 but go ahead and explain.

16 A. No. What I thought I explained was my
17 understanding is FES would not be able to pass on,
18 you know, any amount of cost. In other words, FES
19 had to pay a much higher price to obtain those
20 services. They would not be able to pass on that
21 higher cost.

22 Q. Okay. Thank you so much for that
23 clarification. I misheard you.

24 And you keep stating a name Mike Jurusik.

1 I have heard it pronounced a couple of different
2 ways. Could you spell that for me?

3 MR. LANG: That was also asked and
4 answered.

5 A. Yeah. Off the top of my head I cannot.

6 Q. I'm sorry. Okay. And you stated that he
7 works for the environmental group; is that right?

8 A. That is correct.

9 Q. Okay. Where is the environmental group
10 housed?

11 A. The environmental group is housed under
12 FirstEnergy Generation.

13 Q. Okay. And FirstEnergy Generation is
14 another subsidiary of FirstEnergy Corp.?

15 A. Yes.

16 Q. And it's not sub, it's an affiliate of
17 FENOC; is that right?

18 A. Of FirstEnergy Generation, yes. FENOC is
19 a separate legal entity.

20 Q. Okay. And you had a discussion with
21 Mr. Fisk, and I just may not have heard this or
22 because we are not in the room it's difficult for us
23 to see, but you talked about asking Mr. I think it
24 was Pezze; is that right?

1 A. Yeah. Well, I did discuss a Mr. Pezze
2 this morning. You can continue to tell me which
3 subject you're referring to.

4 Q. I want to make sure I have his name right
5 too. You talked about that you asked Mr. Pezze to
6 look for documents responsive to the subpoena, and my
7 question was did you bring anything with you to the
8 deposition that was responsive to the subpoena?

9 A. No, I did not.

10 Q. Okay, okay. When you were involved in
11 the negotiations of the proposed transaction, what
12 did FirstEnergy request in return for the payment to
13 FES for the unit?

14 A. I guess to clarify I was not directly in
15 the negotiations themselves.

16 Q. Right. I'm sorry. What was your
17 understanding of what FirstEnergy requested in return
18 for those monthly payments?

19 MR. LANG: Just objection. And, Kim, we
20 typically have been, kind of to be clear, talking
21 about the companies -- the three utilities as the
22 companies. Is that what you mean when you are saying
23 FirstEnergy?

24 Q. Oh, I'm sorry, yes, the regulated

1 companies, the regulated utilities.

2 A. Maybe you can rephrase your question so I
3 understand what you're asking.

4 Q. Well, you were talking about negotiations
5 were happening, and you were on the part of
6 FirstEnergy Solutions deciding to expect or not
7 expect a particular recommendation, and my question
8 is what was your understanding that FirstEnergy was
9 requesting in return for the proposed transaction for
10 that payment of FirstEnergy Solutions for the plant?

11 A. My understanding is that's what Section 3
12 of the term sheet describes as all of the seller's
13 rights and the capacity of each facility together
14 with the associated energy, ancillary services, and
15 environmental attributes.

16 Q. Okay. So what is your understanding of
17 how that provision -- and this proposed transaction
18 benefits the companies, the regulated utilities?

19 MR. LANG: Objection, beyond the scope of
20 his testimony. You can answer, if you know.

21 A. I guess my understanding would be it
22 relates to the benefits that the company may be able
23 to provide to its customers as opposed to a benefit
24 directly to the company.

1 Q. Okay. I think we need to clarify
2 something because I think I might have heard
3 something different and then -- well, I will just
4 ask. You are not a shared service employee; is that
5 right?

6 A. That's correct.

7 Q. Okay. And is it your understanding that
8 sometimes shared services employees work for the
9 companies and that sometimes they work for other
10 affiliates like FirstEnergy Solutions, FENOC --
11 FENOC?

12 MR. LANG: Objection, asked and answered
13 and beyond the scope of his testimony. You can
14 answer, if you can.

15 A. Yes, that is my understanding.

16 MR. FISK: Could somebody mute their
17 phone.

18 MS. BOJKO: How -- it's not me breathing
19 heavily.

20 MR. FISK: Right. Whoever is please
21 mute.

22 Q. How -- how is it decided which shared
23 service employee -- or how is it decided which entity
24 a shared service employee will actually represent?

1 MR. LANG: Continuing objection. Go
2 ahead.

3 A. I don't know.

4 Q. Okay. You stated you were placed on the
5 FirstEnergy Solutions' team for the proposed
6 transaction. How -- do you know how it was
7 determined who would be placed on which team?

8 A. No, I do not.

9 Q. And do you know how it would have been
10 determined which shared service employees would have
11 been placed on each team?

12 A. No, I do not.

13 Q. Okay. And do you know who makes that
14 decision?

15 A. No, I do not.

16 Q. Okay. Have you lobbied for policy
17 positions on behalf of either of the companies --
18 let's start with the companies. Have you lobbied on
19 behalf of the companies at the Ohio legislature or
20 before legislators, the governor, or the governor's
21 staff?

22 MR. LANG: Objection, extremely beyond
23 the scope of his testimony but go ahead.

24 A. No.

1 Q. And similarly have you lobbied for policy
2 positions on behalf of FirstEnergy Solutions at the
3 Ohio legislature, before legislators, governor,
4 governor's staff?

5 MR. LANG: Same objection.

6 A. No, I have not.

7 Q. And have you specifically lobbied for
8 issues related to this proposed transaction or the
9 concept of a purchase power agreement on behalf of
10 FirstEnergy Solutions at either the Ohio legislature
11 or before legislators, the governor, the governor's
12 staff?

13 MR. LANG: Same objection.

14 A. No, I have not.

15 Q. And would the answer be the same with
16 regard to lobbying on behalf of the FirstEnergy
17 companies regarding the proposed transaction?

18 MR. LANG: Same objection.

19 A. My answer would be the same.

20 Q. Have you met, sir, with the Commission,
21 the Public Utilities of Ohio Commissioners, or staff
22 regarding the application?

23 MR. LANG: Objection.

24 A. No, I have not.

1 Q. Have you met with commissioners or staff
2 regarding the proposed transaction or concept of a
3 purchase power arrangement?

4 MR. LANG: Objection.

5 A. No.

6 Q. Okay. Sir, can we turn to your -- one
7 more question about that before we move on. You
8 stated earlier this morning that you are a shared
9 executive; is that correct?

10 A. That's correct.

11 Q. And so in that shared executive position
12 you provide support to both sides of the business,
13 the regulated and nonregulated, right? Is that
14 correct?

15 MR. LANG: Objection, asked and answered.

16 A. Yes, that's correct.

17 Q. Okay. But you've also agreed that you
18 are under a corporate separation policy; is that
19 right?

20 MR. LANG: Objection, asked and answered.

21 A. That is correct.

22 Q. Okay. And your -- and under the --
23 strike that.

24 Under the corporate separation policy,

1 you can provide support to the different operating
2 companies or businesses under FirstEnergy Corp.; is
3 that correct?

4 MR. LANG: Objection, asked and answered
5 and beyond the scope.

6 A. As long as I follow the rules of the
7 policy, yes, I can.

8 Q. And the rules that you are referring to
9 that you have to follow is that you don't share any
10 of the information that you learn; is that how it
11 works?

12 MR. LANG: Continuing objection. Go
13 ahead.

14 A. No. There is certain information that's
15 of a sensitive nature that can't be shared within the
16 regulated and nonregulated entities so in my role,
17 which is overseeing a bunch of the technical people,
18 we can share technical details, pumps, equipment,
19 transformers. We can't share commercial details,
20 schedules, customers, those types of issues.

21 Q. Okay. So if you learned how to operate a
22 certain piece of equipment, you are allowed to use
23 that knowledge in your operations with other
24 subsidiaries and affiliates?

1 A. That is correct. Information on
2 equipment can be shared, yes.

3 Q. As far as any other kind of policy such
4 as the FirstEnergy team that you were on, FirstEnergy
5 Solutions team you were on, you were not allowed to
6 use that knowledge or information in your day-to-day
7 dealings with any of the other affiliates; is that
8 right?

9 MR. LANG: Objection. Go ahead.

10 A. That would be correct if you are
11 referring to between the regulated and nonregulated
12 entities.

13 Q. And that's true even if you learn
14 something in that capacity, you can't use your
15 knowledge when working or analyzing, reviewing an
16 issue under a different regulated versus nonregulated
17 entity; is that right?

18 MR. LANG: Objection. Go ahead. I think
19 I need you to rephrase -- repeat the question.

20 Q. Well, if you learned something in your
21 capacity with the unregulated entity, you are not
22 allowed to utilize that knowledge in your an -- in
23 your analyzing or reviewing data in the capacity of
24 the regulated entity; is that right?

1 MR. LANG: Objection, asked and answered,
2 beyond the scope, et cetera. Go ahead.

3 A. If it relates to the types of information
4 that are prohibited by policy, that is correct.

5 Q. Okay. Now, let's turn to your testimony,
6 sir. As I understood your testimony earlier this
7 morning, FENOC does not have responsibility for OVEC,
8 but underneath FENOC you have some responsibilities
9 for fleet management under Sammis; is that right?

10 A. That's correct.

11 Q. Okay. And could you turn to page 2 of
12 your testimony, sir. Do you have it in front of you,
13 I am assuming?

14 A. Yes.

15 Q. Okay. Page 2, line 11 of your testimony,
16 you use the word "good." And I just want to make
17 sure I understand your use of the word "good."
18 You're not using the word "good" with regard to
19 economical or uneconomical, are you?

20 A. No, I'm not. I am using the word "good"
21 in relation to what you've seen from the annual
22 reports on what I would consider the technical parts
23 of the plant, how well the plant has operated from
24 the equivalent availability factor.

1 Q. And on line 12 you talk about the
2 continuations of operations, and I believe you said
3 to somebody else today that you're not sure whether
4 the plants would continue to operate; is that right?

5 A. That is correct. I cannot speculate as
6 to whether they would continue to operate without
7 this agreement.

8 Q. Okay. Would your response -- I'm sorry.
9 Was your response in relation to all -- were you
10 talking about Davis-Besse, Sammis, and OVEC when you
11 made that statement earlier today?

12 A. Yes. I cannot speculate to what will
13 happen to any of those facilities aside from this
14 agreement, the proposed agreement.

15 Q. Okay. And you're not stating that your
16 speculation -- well, back up. Have you reviewed or
17 analyzed any of the continuing operations of the
18 plants with the proposed transaction and without the
19 proposed transaction to do this comparison?

20 A. I'm sorry. Can you maybe rephrase that?

21 Q. Sure. I apologize. You haven't done any
22 kind of analysis or review of the plants looking at
23 it either with the proposed transaction going forward
24 or without the proposed transaction going forward,

1 have you?

2 A. That is correct, I have not.

3 Q. On page 2, still line 21, you talk about
4 740 employees and contractors for Davis-Besse.
5 What -- do you know the breakdown of employees versus
6 contractors?

7 A. Not off the top of my head. However,
8 there was an exhibit we discussed this morning that
9 has the number that are FirstEnergy employees so 740
10 minus that number which, looking at OCC Exhibit 2
11 here, that listed 672 so it would be the difference
12 from 672 to 740. So approximately 68 contractors it
13 looks like.

14 Q. Okay. And you talk on line 23 about a
15 typical planned outage. Are you talking about the
16 refueling outage that's planned?

17 A. Yes, that is what I mean by a typical
18 planned outage.

19 Q. Okay. And it was my understanding from
20 yesterday that was a little confusing, but I thought
21 that happened every two years, and I think you say
22 that on page 3; is that right? It happens every two
23 years?

24 A. For Davis-Besse the refueling outages are

1 approximately every two years.

2 Q. And two years, they operate for two years
3 or there was one in 2012 and then there is one in
4 2014? What's the timing? How does that work?

5 A. Yes. They are approximately two years
6 apart. So if there was one in '12, the next one
7 would be expected to be in '14.

8 Q. At the end of '14. It's expected to
9 operate almost two years before you have one?

10 A. Yes. But, I mean, there's some leeway
11 there. It can be plus or minus some amount of time,
12 not precisely two years.

13 Q. Okay. Can you turn to the next page,
14 page 3.

15 A. Yes.

16 Q. On line 1 you talk about \$180 million
17 spent on fuel. Where does that fuel for Davis-Besse
18 come from?

19 MR. LANG: I think that's confidential.
20 Let us know.

21 A. I mean, I can speak of it in generalities
22 but not from which specific companies or anything
23 like that that it comes.

24 Q. Just generally speaking.

1 A. Well, generally speaking we purchase
2 uranium. We purchase services to convert the uranium
3 to uranium hexafluoride. After that, we purchase
4 services to enrich the uranium. Once it's been
5 enriched, we purchase services to fabricate that into
6 fuel assemblies which are then shipped to the site
7 and placed in the reactor during refueling outages.

8 Q. Okay. All three of those -- you used the
9 word services but those are all considered the fuel?

10 A. Yes. The sum of all of those items
11 would -- the cost of the sum of all of those items
12 would go into the calculation of the fuel expense.

13 Q. Okay. And can you tell me
14 nonconfidentially are these purchased from the state
15 of Ohio or outside the state of Ohio?

16 A. Yeah. I would rather speak to that in
17 the confidential section because providing a state
18 would identify -- would identify specific entities.

19 Q. Okay. We can come back to that then.
20 And would your answers be the same with regard to --
21 you explained a process. That process is something
22 that's done and then brought to the site, so I am
23 assuming the process occurs offsite; is that right?

24 A. That is correct. All of the -- all of

1 the different steps that I mentioned occur off the
2 premises and only the completed final fuel product is
3 supplied to the site.

4 Q. Okay, okay. We will come back to that
5 then as well. Could you now turn to page 4 of your
6 testimony. And on line 20 -- it starts on 16 -- you
7 are talking about the Davis-Besse operating license
8 and you said that -- you talk about the renewal
9 application that was filed back in August, 2010. Has
10 it been approved yet since your filing?

11 MR. LANG: Objection, asked and answered.

12 A. No, it has not.

13 Q. I apologize if I missed these. Did you
14 explain when you expect it to be approved?

15 A. In general terms I explained that we
16 expect the final steps to occur later this year that
17 would enable approval.

18 Q. Okay. And so is the -- what's the
19 typical duration of the approval process?

20 MR. LANG: Objection, asked and answered.

21 A. I briefly mentioned earlier my own
22 opinion would be I couldn't give a typical approval
23 timeframe because if you reviewed the amount of time
24 for all the plants that have had their applications

1 approved, the time durations have varied sometimes
2 significantly. And it largely depends on whether
3 there is intervention and contentions and whether
4 hearings are required.

5 Q. So I guess ask it a different way, is it
6 typical that you would file your renewal application
7 seven years prior to the expiration of the license?

8 A. I guess it's typical to file it far in
9 advance and there's actually some requirements for
10 the amount of time you have to do in advance, but it
11 has been typical if you look at most plants across
12 the United States to have done it far in advance.

13 Q. Okay. And so when would the 20-year
14 renewal occur? Would it be from the date that you
15 filed in 2010 or is it 20 years from the expiration
16 of the current license or is it from the date of
17 renewal approval? Do you know?

18 A. Yes. It is 20 years additional from the
19 date of the current license expiration.

20 Q. Okay. If you could go down to page 5,
21 line 11, I am going to ask you the same question,
22 maybe you could refer to that chart again, what's the
23 breakdown of the Sammis employees versus contractors?
24 Is that on your chart you referred to a minute ago?

1 A. It's on a different exhibit. It was on
2 Exhibit OCC 1, showed the number of FirstEnergy
3 employees at Sammis. And line 11 of my testimony
4 shows 400 employees and contractors and that's an
5 approximate value. OCC Exhibit 1 shows 338 employees
6 as of November of last year. So the difference
7 between those two gives you a rough idea. Just over
8 60 is a rough idea of the number of contractors.

9 Q. Okay.

10 MR. LANG: Hey, Kim, we are looking for a
11 break time, but I don't want -- if you are close to
12 done, I prefer that you finish up. Do you know how
13 much time -- more time you have?

14 MS. BOJKO: I would just say 15 minutes,
15 10 or 15 minutes.

16 MR. LANG: Okay. That's a little bit
17 longer than I was hoping but we are -- we are going
18 to take a 10-minute break and come back at 10 minutes
19 after 3, I guess 12 minutes after 3.

20 MS. BOJKO: Okay. Thanks.

21 MR. LANG: All right.

22 (Recess taken.)

23 MR. LANG: We can go back on the record,
24 and you can go ahead.

1 MS. BOJKO: Thank you.

2 Q. Mr. Harden, on page 5 of your testimony,
3 you also talk about Sammis fuel and you talk about
4 Ohio coal. Are you suggesting here that -- well,
5 where is the remaining amount of fuel procured from?

6 MR. LANG: Objection.

7 A. It would be any one of a number of places
8 that any more specific would be confidential.

9 Q. Okay. But you're suggesting that
10 52 million is spent each year on Ohio coal so is it
11 fair to assume that the remaining amount of the 460
12 is outside of Ohio? Or I guess, I'm sorry, I am
13 mischaracterizing your testimony. I think the 460
14 relates to all of those items; is that right?

15 A. That is correct.

16 Q. Okay. So do you know how much fuel is
17 spent outside of the state of Ohio?

18 A. Not off the top of my head, no.

19 Q. Do you know what the total of the
20 breakdown is of just fuel costs are?

21 MR. LANG: That's confidential if you
22 know.

23 A. Yeah. It would be confidential, but I do
24 not know from memory.

1 Q. Well, I think you stated earlier today,
2 hopefully I am not getting that mixed up with
3 yesterday's deposition, but you did explain different
4 coalmines that you procure coal from, didn't you?

5 A. Not that I remember in specificity.

6 Q. Okay, okay. Let's turn to -- let's talk
7 about OVEC a little bit now and that's on page 8 of
8 your testimony and as I understand it, you do not
9 have any management oversight or your fleet engineers
10 do not work on OVEC; is that correct?

11 A. That is correct.

12 Q. So where did you obtain the information
13 regarding OVEC for this testimony?

14 A. It could have come from a number of
15 places including the ICPA that's referenced as well
16 as their annual report.

17 Q. So did you actually look at the ICPA and
18 annual report?

19 A. Yes, I did.

20 Q. So when you said "it could have come," I
21 guess are you saying somebody else prepared this and
22 it could have come from there, or you actually looked
23 at those and drafted the testimony off of those
24 documents?

1 A. What I meant by that is I know some of
2 this information came from those two documents
3 because I remember reading those two documents. I
4 can't remember if there were any other references
5 that I used.

6 Q. And it's my understanding from the ICPA
7 it's not FES's responsibility to do the maintenance
8 on OVEC and that's why none of your engineers would
9 have the opportunity to work on OVEC; is that
10 correct?

11 A. That is correct.

12 Q. Okay. So no -- FirstEnergy Solutions
13 or -- well, let's back up. Are all -- no.

14 You stated earlier that the -- that
15 individual plants do have their own engineers
16 on-site; is that right?

17 A. Are you referring to Davis-Besse or
18 Sammis or are you referring to OVEC?

19 Q. Well, right. I was trying to back up a
20 little bit. I'm sorry. I am referring to other
21 FirstEnergy Solutions generating facilities that they
22 have both engineers on-site, and then they use the
23 fleet engineers that come from you; that is right?

24 A. That is correct. The FirstEnergy

1 generating facilities have some engineers that are
2 on-site and then there are some engineers in a fleet
3 support role that provide technical support to all
4 the sites.

5 Q. Okay. And those engineers that are
6 on-site for the FirstEnergy Solutions Generation
7 companies, what kind of employees are those? Are
8 those employees of the individual generating
9 facilities?

10 A. For the nuclear site, for Davis-Besse,
11 those are FENOC employees, employees of FirstEnergy
12 Nuclear Operating Company.

13 Q. Right.

14 A. For Sammis those employees are
15 FirstEnergy Generation.

16 Q. And the FirstEnergy Generation would
17 probably also be for other coal facilities?

18 MR. LANG: Objection to relevance but go
19 ahead.

20 A. For our coal facilities that FirstEnergy
21 owns.

22 Q. Right. And the same for natural gas
23 facilities that FirstEnergy Solutions owns?

24 MR. LANG: Objection.

1 A. Yes. The answer would be the same.

2 Q. Okay. So FirstEnergy -- any of
3 FirstEnergy corporate bodies, whether it's
4 FirstEnergy Generation or FENOC, they do not have
5 on-site engineers for OVEC; is that right?

6 MR. LANG: Objection.

7 A. I guess in an attempt to answer your
8 question, let me answer it a different way, the OVEC
9 facilities are operated by an entity called OVEC, so
10 all of the employees there are OVEC employees, not
11 FirstEnergy.

12 Q. Right. And FirstEnergy doesn't provide
13 any kind of technical support in a supporting role
14 for the OVEC, does it?

15 MR. LANG: Objection, asked and answered.

16 A. No, it does not.

17 Q. Okay. And if you look on line 16, you
18 mention the number of OVEC employees and I just want
19 to make sure that you're talking about the total
20 number of employees for the OVEC units and you're not
21 referencing any kind of employees related to the
22 FirstEnergy ownership -- FirstEnergy Solutions'
23 ownership share.

24 A. That is correct. The line 16 is in

1 reference only to OVEC employees. There are no
2 FirstEnergy employees at that facility.

3 Q. Well, there are not only not any
4 FirstEnergy employees but the 467 is for 100 percent
5 of the OVEC operating units and is in no relation to
6 the 4.85 percent of -- that of which FirstEnergy
7 owns; is that right?

8 MR. LANG: Objection.

9 A. I guess to be specific, the 467 are OVEC
10 employees in Ohio and that has no relationship to the
11 percentage of the output that FirstEnergy is entitled
12 to.

13 Q. Okay. And it's your understanding there
14 are other Ohio operating companies that own a share
15 of the output of OVEC; is that correct?

16 A. That is correct.

17 Q. And FirstEnergy Solutions has the
18 smallest share of all of those Ohio companies; is
19 that correct? If you know.

20 A. I don't remember.

21 Q. Turn to page 9 of your testimony, please.
22 On line 8 you talk about the plants enhancing, and I
23 want to make sure I understand your use of that word.
24 These generating assets are in existence in Ohio

1 today; is that right?

2 MR. LANG: Objection to the form but go
3 ahead.

4 A. Yes. These generating plants reside in
5 Ohio.

6 Q. Okay. And I'm -- I know your counsel
7 objected to the use of my term, but I was using your
8 word but that's a good clarification. You say these
9 plants have an on-site fuel capability, and I guess
10 we should clarify. Are you talking about Davis-Besse
11 and Sammis? It doesn't appear that you are
12 calling -- or are you talking about OVEC in the
13 question and answer?

14 A. I guess I can speak better to the
15 specifics of how that relates to Davis-Besse and
16 Sammis than I can to OVEC. And for Davis-Besse and
17 Sammis, it refers to the fact that they do have
18 enough fuel on-site to operate for sustainable
19 periods of time without obtaining more fuel.

20 Q. Okay. And this -- this question is
21 coming after a discussion regarding baseload units.
22 Do you consider OVEC to be a baseload unit?

23 A. I honestly don't remember.

24 Q. Okay. Let's go back to the question of

1 the asset generating mix in Ohio. The two plants
2 that you are talking about in the Q and A on lines 8
3 and 9 are with regard to Davis-Besse and Sammis; is
4 that correct?

5 A. I guess just to be clear the on-site fuel
6 capability refers to Davis-Besse, Sammis, and the
7 OVEC plants. I just can't speak to the specifics of
8 the number of days of fuel supply that OVEC has. I
9 can speak to the specifics of Sammis, and I can speak
10 to the specifics of Davis-Besse, but all -- all of
11 those facilities do have some amount of fuel on-site.

12 Q. Okay. And these -- the three plants that
13 you just mentioned, they are in existence today; is
14 that right?

15 A. Yes.

16 Q. Okay. So the approval of the proposed
17 transaction is in no way enhancing or changing the
18 mix that's in existence today; is that right?

19 A. That is correct.

20 Q. Okay. And you just mentioned refueling.
21 We talked about this a little bit earlier. When was
22 the last Davis-Besse refueling? Do you know?

23 A. It was in the spring of 2014.

24 Q. Okay. And then the one before that was

1 in 2012; is that right?

2 A. That's correct.

3 Q. Do you know what time of year in 2012?

4 A. I do not know the specific months, but it
5 would have been in the spring.

6 Q. Okay. And I believe that you stated in
7 response to a question, foundation here, that the
8 information you got regarding environmental control
9 that starts on line 17 on page 9 and goes over to
10 page 10 and after, that this information you obtained
11 from the environmental group at -- I guess it's under
12 FirstEnergy Generation; is that right?

13 MR. LANG: Objection.

14 A. The -- not entirely. Like the permit for
15 Davis-Besse listed on line 20, that would have been
16 obtained from the Davis-Besse station. Much of the
17 technical details on the plants themselves such as
18 the reference to how many -- you know, the reference
19 to seven coal units like on line 17, I mean, that
20 comes from the station, not from the environmental
21 group. The information from the environmental group
22 is -- was mostly the percentage reductions that we
23 achieve from the scrubbers and the SCRs and the
24 SNCRs. Does that clarify that?

1 Q. Okay. Yes. And I was referring more to
2 the compliance regulations so those would be through
3 the environmental group; is that right?

4 MR. LANG: Objection.

5 A. Yes.

6 Q. Okay. And then -- and then the
7 environmental group, again I have two names,
8 Mr. Pezze and Mr. Jurusik; is that correct?

9 A. No. Mr. Pezze is not in the
10 environmental group.

11 Q. Oh, I'm sorry. I thought you had him
12 lumped in. Which group is he in?

13 A. Mr. Pezze is our director of nuclear
14 projects, and he assisted me in gathering some of the
15 information for my testimony.

16 Q. I see. So he assisted you in information
17 that might have related to the environmental issues?

18 A. I can't remember which items he
19 specifically assisted me with.

20 Q. Okay. And if you look at the bottom of
21 page 11 of your testimony, you talk about the CAIR
22 requirement, and you say that Sammis could purchase
23 additional NOx allowances. And has it -- has it been
24 required to put -- to purchase NOx allowances from

1 the years 2010 to '14?

2 A. I can't speak to past -- to the years
3 prior to 2014 because I didn't specifically look at
4 that. But for 2014, I can tell you we did not.

5 Q. Okay. And in response to a question
6 today, you said that you didn't believe that Sammis
7 would have to purchase allowances going forward. Was
8 your answer in regards to CAIR and CSAPR and MATS, or
9 were you just referring to one of these?

10 MR. LANG: Objection to form.

11 A. I don't think the earlier discussion
12 included MATS. I believe we were just talking about
13 CSAPR and NAAQS. CSAPR superseded CAIR in effect.
14 However, I would make the same statement relative to
15 MATS. I do expect Sammis to be able to comply with
16 their requirements.

17 Q. Without the need to purchase allowances.

18 A. That is correct.

19 Q. Okay. And when do you believe that CAIR
20 superseded CSAPR?

21 A. In effect, I believe it superseded it
22 when it was put into effect.

23 Q. Which was when?

24 A. I don't remember.

1 Q. You first -- line 2 you say "which will
2 replace CAIR" and that's why I am asking. Do you
3 believe it's already --

4 A. Yeah. I honestly don't remember because
5 CSAPR was a long time in the coming, tied up in the
6 court system for some time.

7 Q. Okay. But sitting here today you believe
8 that it has replaced the CAIR?

9 A. Yes.

10 Q. And just to follow up on that, I believe
11 you said you haven't done any specific analysis to
12 make that determination; you're relying on
13 information you've received from others. Is that
14 what you said earlier?

15 A. Not exactly. What I said was I met with
16 Mr. Jurusik who went over with me many of the details
17 of the rules as well as historical emissions and in
18 that discussion we went over what some of the
19 proposed requirements are, what we believe is likely
20 going to be put into effect and from that use
21 judgment to come to the conclusion that we do not
22 believe that Sammis will have to -- or we don't -- we
23 believe Sammis will be in compliance with what is
24 likely to take effect from proposed requirements.

1 Q. Okay. And have you ever -- before that
2 meeting with Mr. Jurusik had you ever had the
3 opportunity to review the CAIR, CSAPR, or MATS
4 information and made these determinations in a
5 different forum?

6 A. Not the way you asked the question in
7 that I have never tried to make those determinations
8 in another forum but I have reviewed aspects of those
9 rules prior to the meetings with Mr. Jurusik.

10 MS. BOJKO: Except for my couple of
11 questions in the confidential section that we need to
12 go back to, that's all that I have. Thank you, sir,
13 for your time.

14 MR. LANG: Excellent.

15 MR. FISK: Should we go off and switch?

16 MR. LANG: Yeah. I believe everyone that
17 was on the list for the public portion we are going
18 to disconnect from this phone number. We'll take 2
19 minutes and come back on the confidential line. And
20 as we did before, Sierra Club can start the
21 questioning. We'll go off the record.

22 (Discussion off the record.)

23 (Confidential Portion Excerpted.)

24

1 State of Ohio :
2 County of SUMMIT : SS:

3 I, Paul A. Harden, do hereby certify that I
4 have read the foregoing transcript of my deposition
5 given on Friday, January 16, 2015; that together with
6 the correction page attached hereto noting changes in
7 form or substance, if any, it is true and correct.

8 
Paul A. Harden

9 I do hereby certify that the foregoing
10 transcript of the deposition of Paul A. Harden was
11 submitted to the witness for reading and signing;
12 that after he had stated to the undersigned Notary
13 Public that he had read and examined his deposition,
14 he signed the same in my presence on the 22nd day
15 of January, 2015.

16 
Notary Public

17 My commission expires Terri L. Hunsinger
18 Notary Public - State of Ohio
19 My Commission Expires 5/5/16, Terri L. Hunsinger
20 Notary Public - State of Ohio
21 My Commission Expires 5/5/16
22
23
24

ERRATA SHEET

Please do not write on the transcript. Any changes in form or substance you desire to make should be entered upon this sheet.

TO THE REPORTER:

I have read the entire transcript of my deposition taken on the 16 day of January, 2015, or the same has been read to me. I request that the following changes be entered upon the record for the reasons indicated. I have signed my name to the signature page and authorize you to attach the same to the original transcript.

Page	Line	Change	Reason
73	20	Change "long" to "log"	incorrect word recorded
105	12	change "exceptions" to "excerpts"	incorrect word
178	24	change "complete" to "fleet"	incorrect word recorded
180	11	change "game" to "gained"	incorrect word recorded
186	19	change "after" to "of"	incorrect word
201	18	insert "if" prior to "FES"	missing word
several		"Jurusik" should be "Jrousek"	misspelled name
		throughout transcript	

Date 1-22-15 Signature: [Signature]


1 CERTIFICATE

2 State of Ohio :
3 County of Franklin : SS:

4 I, Karen Sue Gibson, Notary Public in and for
5 the State of Ohio, duly commissioned and qualified,
6 certify that the within named Paul A. Harden was by
7 me duly sworn to testify to the whole truth in the
8 cause aforesaid; that the testimony was taken down by
9 me in stenotypy in the presence of said witness,
afterwards transcribed upon a computer; that the
foregoing is a true and correct transcript of the
testimony given by said witness taken at the time and
place in the foregoing caption specified and
completed without adjournment.

10 I certify that I am not a relative, employee,
11 or attorney of any of the parties hereto, or of any
12 attorney or counsel employed by the parties, or
financially interested in the action.

13 IN WITNESS WHEREOF, I have hereunto set my
14 hand and affixed my seal of office at Columbus, Ohio,
on this 19th day of January, 2015.

15 
16 Karen Sue Gibson, Registered
17 Merit Reporter and Notary Public
in and for the State of Ohio.

18 My commission expires August 14, 2015.

19 (KSG-5989Public)

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22
23
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Case No(s). 14-1297-EL-SSO

Summary: Deposition (Public) of Paul A. Harden electronically filed by Mr. Tony G. Mendoza
on behalf of Sierra Club