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ASLBP Number: 09-880-05-COL-BD01

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UNITED STATES OF AMERICA

U.S. NUCLEAR REGULATORY COMMISSION

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BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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In the Matter of:	Docket No.
DETROIT EDISON CO.	52-033-COL
(Fermi Nuclear Power	
Plant, Unit 3)	ASLBP No.
	09-880-05-COL-BD01

Tuesday,
May 5, 2009
Monroe, Michigan

BEFORE:

RANDALL J. CHARBENEAU, Administrative Judge
MICHAEL F. KENNEDY, Administrative Judge
RONALD M. SPRITZER, Administrative Judge

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Adjourn

P R O C E E D I N G S

(10:06 a.m.)

JUDGE SPRITZER: Good morning. My name is Ronald Spritzer. I'm a Judge of the Atomic Safety and Licensing Board assigned to this case.

This case is in the matter of Detroit Edison Company concerning the combined license application for Fermi Nuclear Plant, Unit 3. It's Docket No. 52-033-COL and ASLBP No. 09-880-05-COL-BD01.

And we are here to hear oral argument concerning the petition to intervene and request for a hearing filed by Beyond Nuclear and a number of other organizations and also several individuals.

This is a hearing to hear oral argument on the admissibility of their contentions. We are not yet at the stage where we will be hearing public statements. So members of the public who are here, you are more than welcome to listen. We hope you find this educational and interesting. I'll try and help to the extent I can by providing at least a brief introduction of what each contention is about before we start argument on that contention, but this is not a public participation proceeding.

We may, Boards often do hold public

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1 participation sessions, what we call limited
2 appearance sessions, at a later stage of our
3 proceedings, but we are not at that stage yet. Right
4 now we are at the stage of simply sorting out the
5 case, deciding which of the contentions, if any, filed
6 by the Petitioners merit going forward with, and we
7 will later on decide when and where and under what
8 circumstances we would hold an evidentiary hearing if
9 their petition to interview and request for a hearing
10 is granted.

11 Let me begin by thanking the City Council,
12 the Mayor, and the administration of the Town of
13 Monroe for very kindly making this facility available
14 to us, and we hope we have an interesting and useful
15 hearing here today.

16 Also, let me ask the other judges here to
17 introduce themselves. To my right is Judge Randy
18 Charbeneau.

19 JUDGE CHARBENEAU: Yes, I'm Randy
20 Charbeneau. I am an Administrative Judge, and I am
21 also a professor on the faculty of the Department of
22 Civil and Environmental Engineering at the University
23 of Texas at Austin.

24 Closer to here, I was born and raised in
25 Ann Arbor, and my undergraduate degree is from

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1 University of Michigan in civil engineering.

2 JUDGE KENNEDY: Good morning. My name is
3 Michael Kennedy. As a member of this Board, I'm one
4 of the two technical judges with Dr. Charbeneau being
5 the other.

6 In regard to my academic background, I
7 have a Master's and Ph.D. in nuclear engineering, and
8 prior to joining the Atomic Safety and Licensing Board
9 panel with the NRC, I spent 35 years performing and
10 reviewing safety analysis and licensing of nuclear
11 facilities.

12 JUDGE SPRITZER: In terms of ground rules
13 for this hearing, please turn off your cell phones.
14 I suspect everybody has done that already, but just a
15 reminder.

16 And while the representatives of the
17 various participants are talking, please refrain from
18 talking yourselves. We want to be able to pay close
19 attention to their arguments.

20 In terms of housekeeping, we will probably
21 take a short break around 11 o'clock. We will
22 probably break for lunch some time between 12 and
23 12:30. I expect we will take about an hour for lunch,
24 and then we'll probably start up then again between
25 one and 1:30, and we'll take another short break

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1 probably in the afternoon, depending on how things are
2 moving along.

3 Let me ask the representatives of the
4 participants here today to introduce themselves, those
5 who will be speaking or if you're sitting at counsel
6 table, and I'll begin on my right with the
7 Petitioners.

8 MR. LODGE: Good morning. My name is
9 Terry Lodge. I'm counsel for the various and sundry
10 Petitioners, Beyond Nuclear and the other individuals
11 and organizations.

12 JUDGE SPRITZER: Okay, and on your right?
13 On your left. Excuse me.

14 MR. LODGE: On my left, thank you. There
15 are several people who will -- lawyers, without being
16 too derogatory of our profession, being sometimes
17 regarded as a mouthpiece -- I'm going to have
18 intelligent people helping me today, including Sandra
19 Bihn, who is on my immediate left; Michael Keegan, who
20 is at the end of the table; Diane D'Arrigo, who is
21 behind me; and Paul Gunter, who is also behind me.

22 Oh, pardon me, and Kevin Kamps, who is
23 also going to present argument on a couple of
24 contentions, as is Mr. Keegan.

25 JUDGE SPRITZER: Okay. Since you have a

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1 number of people there, you'll need to move up to the
2 microphone when you're making your presentations.

3 MR. LODGE: We will do that.

4 JUDGE SPRITZER: And then on my left, the
5 Applicant, Detroit Edison Company.

6 MR. REPKA: Yes. I'm David Repka, counsel
7 for Detroit Edison Company, and on my left is my
8 colleague Tyson Smith, who will also be presenting
9 some argument on some issues this morning.

10 I do want to mention behind me today,
11 directly behind me are David Harwood, Randy
12 Westmoreland, and Peter Smith of the Detroit Edison
13 Fermi 3 Project, and I believe Mr. Smith will probably
14 join me at counsel table on at least a couple of the
15 contentions to provide some technical support.

16 And also with us is our colleague Rachel
17 Miras-Wilson, attorney for Detroit Edison Company.

18 JUDGE SPRITZER: Very good. Glad to have
19 all of you.

20 And for the NRC staff?

21 MS. CARPENTIER: Hello. My name is Marcia
22 Carpentier. I'm appearing for the NRC staff, and with
23 me on my right is Marcia Simon, who is also an
24 attorney with the Office of General Counsel at NRC.

25 Also with us today are Stephen Lemont, who

1 is the environmental project manager on the Fermi 3
2 Project. He will be in charge of the environmental
3 impact statement process. And on the far right is
4 Jerry Hale, who is the safety project manager who will
5 be handling the safety evaluation, the other half of
6 the staff's review. However, they will not be arguing
7 contentions today.

8 JUDGE SPRITZER: Very good. Any
9 housekeeping matters to be brought up by any of the
10 parties' representatives before we get started?

11 MR. LODGE: Yes. If I may make a
12 suggestion, the Contention No. 10, which was
13 notification of First Nations bands, it was our
14 intention and hope that the Walpole Island band of
15 Native Americans would ultimately join as Petitioners.
16 They have since notified us just in the past perhaps
17 less than a week that while they are interested and
18 while they do believe that some interests of the tribe
19 may be affected by this proceeding, that they are not
20 able to participate in any formal type of fashion.

21 Therefore, I propose that we essentially
22 go on the pleadings and arguments.

23 JUDGE SPRITZER: For Contention 10?

24 MR. LODGE: For Contention 10 and save
25 that time.

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1 JUDGE SPRITZER: Okay. Any objection to
2 that from the NRC staff or Detroit Edison?

3 MR. REPKA: No objection here.

4 MS. CARPENTIER: No objection here.

5 JUDGE SPRITZER: Okay. Very good. Well,
6 we'll drop that. That will hopefully increase our
7 probability of finishing by four o'clock, which is our
8 ultimate goal here today.

9 All right. Why don't we move to -- excuse
10 me? Sorry.

11 MS. CARPENTIER: We had one other issue
12 we'd like to clarify for the record.

13 JUDGE SPRITZER: Okay.

14 MS. CARPENTIER: And that is
15 representation on the Petitioners' side. We wanted to
16 confirm that Mr. Lodge was counsel for all of the
17 Petitioners, and that none of them are intending to
18 appear pro se. And the reason for that is in case we
19 need to consult on a motion or any other procedural
20 matter.

21 MR. LODGE: That is a correct statement.
22 I represent all of the Petitioners as their counsel,
23 but took the invitation of this Board to designate
24 people with a little more knowledge than I might have
25 on a couple of the contentions.

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1 JUDGE SPRITZER: That's fine. Okay.
2 Anything else of a housekeeping nature before we get
3 started?

4 (No response.)

5 JUDGE SPRITZER: Very well. Let's move to
6 Contentions 1, 6 and 14, which we decided to hear
7 argument on together since they're all related.

8 For members of the public who have not had
9 the chance to digest the 300 or so pages of material
10 that have been filed in this proceeding by all of the
11 various participants, these are all related
12 contentions. They concern essentially impacts to
13 water resources either in terms of the water that the
14 plant, the proposed Fermi Unit 3, will draw in from
15 Lake Erie or discharges to Lake Erie and other water
16 resources from the plant during its operations once it
17 gets under operation if it is, indeed, licensed.

18 And we have combined these contentions
19 because they all appear to be fairly closely related.

20 And we will begin with the Petitioners and
21 Mr. Lodge, I believe, is the first of the three
22 Petitioners' representatives on this group of
23 contentions.

24 MR. LODGE: Thank you.

25 I don't intend to have a lot of visual

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1 exhibits today, but for purposes of clarifying this
2 contention, what we're talking about, you will hear
3 from me and possibly the others, with references to
4 the western Lake Erie basin, and I would like to --

5 THE REPORTER: Could you speak closer to
6 a microphone? I cannot pick you up.

7 MR. LODGE: Right. I would like to
8 approach the panel and also ultimately counsel from
9 parties to show them what we mean when we're talking
10 about the western Lake Erie basin.

11 JUDGE SPRITZER: Okay. Just for point of
12 clarification, we did ask that we be notified and that
13 the other parties be notified of any visual aids. I
14 don't recall that, but --

15 MR. LODGE: All this is is a map.

16 JUDGE SPRITZER: All right. Does anybody
17 have any objection to us looking at a map? I don't
18 think that will be unduly prejudicial.

19 MS. CARPENTIER: No.

20 MR. REPKA: No.

21 JUDGE SPRITZER: All right. Let's go
22 ahead.

23 MR. LODGE: Thank you.

24 This is, of course, Lake Erie. Here is
25 the Detroit area. Monroe is there approximately.

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1 There's Toledo. These are the Lake Erie islands. The
2 western Lake Erie basin that we're talking about is
3 the area west of the Lake Erie island archipelago, if
4 you will.

5 JUDGE SPRITZER: Okay. Will you show that
6 to the other representatives?

7 JUDGE KENNEDY: Mr. Lodge.

8 MR. LODGE: Yes, sir.

9 JUDGE KENNEDY: Could you give us a sense
10 of the distance from the islands to the site of Fermi
11 3?

12 MR. LODGE: Yes, sir. It is approximately
13 35 miles.

14 JUDGE KENNEDY: Thirty-five miles?

15 MR. LODGE: Yes, straight line miles.

16 The western Lake Erie basin is unique
17 among the -- in the Great Lakes basin and certainly
18 unique within the Lake Erie itself for a variety of
19 human induced circumstances as well as natural ones.
20 The western basin, which is only our starting point
21 for discussion here, contains about 32 percent of the
22 lake's shoreline, 13 percent of the surface area of
23 Lake Erie, but only five percent of the Lake Erie
24 volume.

25 The Great Lake is often referred to as

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1 three basins, three general basin areas, eastern,
2 central, and western. The average depth in the
3 eastern portion of the lake runs up to 200 feet. The
4 average depth in the central basic is about 60 to 62.
5 The average depth in the western basin is only about
6 24. That has a lot of implications for any future
7 climate change predictions for this region, which are
8 that perhaps over the next 40 to 60 years there will
9 be as much as a meter and a half drop in the average
10 depth in the lake.

11 The U.S. Geological Survey estimates that
12 71 percent or 10.6 billion gallons of Lake Erie water
13 is used per day for cooling. Of this, nearly three
14 billion gallons of water a day are used by the
15 existing five power plants in the western basin.
16 Those five plants for purposes of discussion are the
17 Bayshore Plant in Oregon, Ohio, which is immediately
18 east of Toledo; the Whiting Plant, which is a few
19 miles up the coast in southern southeastern Michigan;
20 the Monroe Power Plant, another coal burner as is
21 Whiting and Bayshore, which is, of course, in Monroe;
22 the Fermi Plant, and at the far southeastern corner,
23 if you will, of the western lake basin, Davis-Besse,
24 which is a nuclear power station.

25 These plants combine --

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1 JUDGE CHARBENEAU: How much of that is
2 consumptive use?

3 MR. LODGE: As opposed to cooling use?

4 JUDGE CHARBENEAU: Yes.

5 MR. LODGE: It's almost all thermal.

6 JUDGE CHARBENEAU: No, consumptive use.
7 How much is passed through and returned, and how much
8 is actually --

9 MR. LODGE: About three billion, about
10 three billion per day.

11 MS. BIHN: Not consumptive; thermal. It's
12 for cooling purposes.

13 MR. LODGE: Okay. He's asking for
14 consumptive.

15 MS. BIHN: He's saying consumptive. Very
16 little is used for consumption.

17 JUDGE CHARBENEAU: Thank you.

18 MR. LODGE: Thank you.

19 The problems are that there's enormous
20 thermal impact, which is in our estimation going to
21 become a more intense problem as time passes and the
22 addition of the Fermi Power Plant, Fermi 3 alongside
23 Fermi 2, will intensify the thermal effects even more
24 greatly as the average lake level drops.

25 JUDGE SPRITZER: Hasn't Fermi 3 proposed

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1 that cooling tower? Indeed, it is almost certainly
2 required by law to have a cooling tower. So wouldn't
3 that tend to certainly reduce rather significantly the
4 level of any thermal impact?

5 MR. LODGE: Well, it will not reduce the
6 humidity and the evaporation effects and the localized
7 kinds of climate problems that cooling towers bring
8 along.

9 JUDGE SPRITZER: Our Question 1 on this
10 contention asked, and this may be getting a little bit
11 beyond where you were in your presentation, but we
12 have limited time. We asked whether a baseline
13 assessment of environmental conditions in the region
14 near proposed Fermi 3 satisfied the cumulative impact
15 requirement of NEPA and the NRC's NEPA regulations.

16 We talked about it, and I don't know if
17 you've had a chance to look at the opinion in the
18 Calvert Cliffs decision, but we did have some
19 discussion.

20 Do you disagree as a general matter with
21 that approach?

22 MR. LODGE: Yes.

23 JUDGE SPRITZER: That is, is it sufficient
24 for them to establish an environmental baseline and
25 then examine -- "them" being the Applicant -- the

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1 environmental report to set forth an environmental
2 baseline and then describe how their project will or
3 will not perfect that baseline?

4 MR. LODGE: It's useful starting
5 information, but as the CEQ regulations, as well as
6 the Kelepi decision echo, we're talking about
7 cumulative effects analysis, including past, present
8 and prospective impacts, and among the possible
9 federal decisions that we believe are pending or going
10 to be pending soon, include up rates for about four
11 nuclear power plants that we're aware of. There's a
12 possible up rate somewhere in the offing in the next
13 several years for Fermi 2. On September 8th of '08,
14 the Point Beach Plant for Unit 1 proposed or announced
15 an intention to seek an up rate in power for spring
16 2010 for Unit 1, Unit 2 Spring of 2011.

17 Fitzpatrick Plant proposes or is
18 anticipating seeking up rate permission of 20 percent
19 in fall of 2012.

20 On March -- pardon me. Palisades also
21 submitted an advanced notice basically of further
22 stretch type of up rate in power.

23 Those types of actions alone will increase
24 the potential thermal and possibly chemical and
25 radiological effects within the Great Lakes basin.

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1 And let me stress here with our very limited time we
2 believe that the Kelepi decision, which actually
3 evaluated a multi-state environmental problem and
4 decided it wasn't regionally connected enough, that
5 we're talking multi-state Great Lakes basin. A good
6 many of the plants that I have just mentioned are, if
7 you will, upstream of the proposed Fermi 3, and the
8 actual waterborne effects, if not the airborne
9 effects, which are also from an up wind type of
10 position, are going to be, we believe, something that
11 must be addressed within a NEPA document.

12 Furthermore, there are at least by our
13 knowledge, 11 different nuclear power plant proposals,
14 and we're talking about in a regulatory and planning
15 stages and announced on the Canadian side, which have
16 been addressed not at all. Four of those are at the
17 Bruce Peninsula, which is approximately 200 miles
18 almost due north of where we sit; three for the
19 Nanticoke area, which is about 180 miles in a straight
20 not due east but somewhat slightly northeast on the
21 Lake Erie shore of Ontario; Pickering Plant, which I
22 believe is -- did I say Ontario? Lake Erie --
23 Pickering Plant, which is on Lake Ontario, there's a
24 proposal for four new units there.

25 We believe, number one, it's a mistake to

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1 conclude that the wind always blows from one
2 direction. We do have nor'easters in the Great Lakes
3 area.

4 Number two, when you look at the other
5 regulatory views that have become established policy,
6 such as NPDES, cumulative effects analysis, as well as
7 the utility's own environmental report references, it
8 appears that they're using the entirety of Lake Erie
9 in averaging out thermal and other types of effects.

10 So we believe that it is a very
11 appropriate request for this panel to order and
12 require changes in a region basis -- and I'm not
13 talking about just the western Lake Erie basin -- a
14 Great Lakes basin-wide cumulative effects analysis be
15 performed and undertaken.

16 JUDGE SPRITZER: Does it help address your
17 concern that they will, in fact, be requires to obtain
18 what's called an NPDES permit or Clean Water Act
19 permit, and that I would think it very likely that
20 whether that's issued directly by EPA or by the State
21 of Michigan, I would think they would take into
22 account the total impact on the Great Lakes or at
23 least the western part of Lake Erie, wherever they
24 thought impacts might likely occur.

25 Does that give you any relief, make you

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1 believe that those concerns would be addressed in the
2 permitting process?

3 MR. LODGE: Well, as I indicated, we
4 believe, first of all, it depends an awful lot on what
5 snapshot in time the NPDES determination is made
6 because of these up rates and requests that are
7 pending, as well as as I indicated the fact that
8 there's essentially in the ERs as presenting written
9 zero consideration of the environmental effects of
10 having 11 new nuclear power reactors on the Great
11 Lakes, four of which are upstream and, if you will,
12 upwind of the Detroit-Monroe area.

13 Essentially what we asked the Board to
14 avoid is a segmentation of this proposal down into
15 some sort of arbitrarily defined local region. We
16 believe that it's not the Board's role to decide how
17 many straight line miles are too many; you know, what
18 plant is too far away to be considered for a
19 cumulative effects analysis, because as we say, we're
20 talking about a regional and a multi-state regional
21 watershed here.

22 I've been talking about Contentions 1 and
23 6. I would like to yield about two minutes if there's
24 still that type of time to Michael Keegan to talk
25 about Number 14, please.

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1 JUDGE SPRITZER: Okay. You do have about
2 four minutes actually.

3 MR. KEEGAN: Thank you.

4 The question was how is Number 14
5 different from one and six. Number 14 addresses
6 thermal pollution. The plant is allowed to discharge
7 17,000 gallons per minute. That equates to, comes out
8 to 72 acre foot of temperature up to 96 degrees. I
9 consider that a thermal impact.

10 I'm concerned about the biocides,
11 solenicide, molluscocides, which are being used.
12 These are toxic chemicals. There are plants that use
13 a phosphoric acid, about 3.45 tons per day. That
14 breaks down into phosphorus, which combined with the
15 thermal pollution compounds the algal bloom potential,
16 and in the last three years we have seen the
17 introduction of a toxic algal bloom, *Lyngbya wollei*,
18 and if you --

19 JUDGE SPRITZER: You may have to spell
20 that one. Is that a name for a species?

21 MR. KEEGAN: Yes, it is. It's a blue-
22 green algae. It's L-y-n-g-b-y-a w-o-l-l-e-i. And it
23 is not at all addressed throughout their ER.

24 So we have high phosphorus that the plant
25 will be emitting compounded with phosphorus coming

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1 down through the Detroit River. This will lead to the
2 eutrophication of Lake Erie. We saw Lake Erie dying
3 in the '60s, and the last three years have seen high
4 algal blooms.

5 The ultimate heat sync is the atmosphere,
6 and the second part of Contention No. 14 is a concern
7 for the atmosphere in micro climates which could
8 occur. There were be 17,000 gallons per minute of
9 evaporation coming off of the cooling towers in a fog,
10 which could potentially have micro organisms, free
11 living amoeba, Legionnaire's disease, Le Guerriere
12 (phonetic) infections. So we are concerned about the
13 atmosphere of the micro climates that we create.

14 In addition, the plant ESBWR, which has
15 never been run, they are saying that there would be 49
16 million gallons per day of intake, and that is just
17 under the trigger of 50 million gallons pe day that
18 the Clean Water Act requires for a 316(b) and (a).

19 And so what we would argue is with the
20 combination of the Fermi 2 and Fermi 3, you are really
21 looking at close to 100 million gallons per day being
22 taken, and all being snuck in under the 316(a) and
23 (b), which would call for a full thermal evaluation
24 and a full evaluation of entrainment and impingement
25 of fish.

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1 So we feel that they should not be allowed
2 to combine this under one NPDES permit, and that it is
3 that close to the 50 million trigger that they should
4 be required to pursue that 316(a) and (b).

5 JUDGE SPRITZER: On that issue we're
6 generally not -- you're making an argument that may
7 well be relevant to the Clean Water Act, but this
8 Board does not administer the Clean Water Act. EPA
9 does.

10 In terms of what's in the environmental
11 report, if you could give me some specific idea of
12 what you think is deficient concerning the issues
13 you've just been talking about. They did have
14 something to say, as I remember, about thermal
15 impacts, about entrainment and those things. Are you
16 saying it's something that they omitted, that they
17 should have discussed in more detail?

18 MR. KEEGAN: Well, we may be at a tipping
19 point. The walleye and the perch, which provides for
20 literally billions of dollars of tourism in this
21 region, Michigan and Ohio, is at the brink, and just
22 one more entrainment, one more impingement of these
23 species could be the tipping point. They say
24 comparatively to what's going on in other coal-fired
25 plants it's minimal, but it's one more additive.

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1 What they have relied on is Fermi 2 data,
2 which is from 1970s. They have not updated the data.
3 So it's really we're talking about data that's 40
4 years old, and we feel that it's necessary to do
5 current data analysis.

6 JUDGE KENNEDY: Mr. Keegan.

7 MR. KEEGAN: Yes.

8 JUDGE KENNEDY: Did I hear you
9 characterize an effluent of 96 degrees when you were
10 talking about the regional impact?

11 MR. KEEGAN: Of 96 degrees coming off the
12 Fermi 3 in a blow-down scenario.

13 JUDGE KENNEDY: And how many gallons?

14 MR. KEEGAN: It would be -- it translates,
15 well, 17,000 gallons per minute, and that translates
16 into 17 acre-feet per day of up to 96 degrees.

17 JUDGE KENNEDY: This is the discharge from
18 the --

19 MR. KEEGAN: Fermi 3.

20 JUDGE KENNEDY: -- from the cooling tower
21 or end of the --

22 MR. KEEGAN: No, the discharges out the --

23 JUDGE KENNEDY: The blow-down flow.

24 MR. KEEGAN: Yes.

25 JUDGE KENNEDY: Okay.

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1 MR. KEEGAN: In combination with the Fermi
2 2, which would be approximately close to that.

3 JUDGE KENNEDY: The micro climates from
4 the cooling tower, Fermi 3, can you characterize them?
5 Are they more significant, less significant than Fermi
6 2? Are they similar?

7 MR. KEEGAN: Well, it would be an
8 additive. You've got huge thermal plants sitting
9 right here. You've got close to the world's largest
10 coal burner. You've got the Fermi 2 and potentially
11 Fermi 3, and so you can't just, in my opinion, not to
12 look at just one. You need to look at the three in
13 combination that we are creating potentially
14 devastating situation.

15 In addition, the particulate matter coming
16 off the coal burner could contribute compound matters.

17 JUDGE KENNEDY: Thank you.

18 JUDGE SPRITZER: All right. I think we've
19 had slightly more than your allotted 15 minutes. As
20 between the staff and the Applicant, have you all
21 decided who is going to go first and second? Why
22 don't we go ahead with the Applicant unless there's
23 some objection to that? And we'll have the staff
24 last.

25 MS. CARPENTIER: No, there's not.

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1 MR. LODGE: Thank you.

2 JUDGE SPRITZER: Mr. Smith.

3 MR. SMITH: Good morning. In proposed
4 Contention 1 that Petitioners have asserted that the
5 ER omits a discussion of the cumulative impact of
6 Fermi 3 and other reactors in the Great Lakes basin
7 generally, Contention 6 asserts that the ER omits
8 information regarding impacts to the western basin of
9 Lake Erie in particular. And Contention 14 alleges
10 various other cumulative and indirect impacts were not
11 considered. All three of these contentions are
12 inadmissible for the reasons we discussed in our
13 response.

14 The application actually does contain a
15 discussion of cumulative impacts. The proposed
16 contentions are adequately supported, and Petitioners
17 have not demonstrated that any additional analysis
18 would lead to different conclusions than what is
19 already in the environmental report.

20 Turning to the specific questions proposed
21 by the Board, in the interest of time, you're correct
22 that the baseline assessment of environmental
23 conditions in the region near Fermi 3 does provide the
24 starting point for the cumulative impacts analysis.
25 You've got to start somewhere, and you start by

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1 looking at what is the baseline of the environmental
2 conditions in the area near the plant.

3 This necessarily takes into account all of
4 the other reactors that are upstream to the extent
5 that they have any impact on the environment near
6 Fermi 2 or 3, as well as any other reactors on Lake
7 Erie to the extent that they have an impact on the
8 environment near Fermi 2.

9 The petitioners have provided no
10 information to suggest that there are any types of
11 impacts that were not considered or that were ignored
12 or not taken into account. They haven't provided any
13 information that's adequate to support a contention on
14 this alleged omission.

15 The Board also asked specifically whether
16 this baseline would include the potential impacts from
17 Davis-Besse, and as I indicated, yes, to the extent
18 that there are any impacts to the environment near
19 Fermi 3, those impacts are already considered in the
20 baseline assessment.

21 JUDGE SPRITZER: Can you clarify for me?
22 I believe there was someplace in the ER where you said
23 something like you weren't anticipating any
24 radionuclides in the effluent from the reactor during
25 operations, but nevertheless you did an analysis of

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1 that, I believe because it was required by NRC
2 guidance of some sort. Am I off base on that or --

3 MR. SMITH: Yeah, I think you're mixing a
4 couple of things, but this is addressed in the
5 discussion of effluent discharges, and so it does fall
6 within this a little bit.

7 The ESBWR is designed to be a zero
8 discharge facility. So that is correct.
9 Nevertheless, the Applicant, even in calculating our
10 various effluent characteristics, we have taken into
11 account and conservatively modeled various discharges
12 in order to provide a bounding or analysis of what the
13 effects would be of the operation of Fermi 3. So,
14 yes, we have taken those into account.

15 JUDGE SPRITZER: Now, how does that
16 factor, if at all, into the cumulative impact
17 analysis? In other words, did you look at other
18 sources of radionuclides that contribute to the Great
19 Lakes and how the Great Lakes or Lake Erie or the
20 western end of Lake Erie might be affected by these
21 hypothetically generated radionuclides from Fermi 3?

22 MR. SMITH: Yes, they're taken into
23 account, but it's implicit in the environmental
24 baseline. NEPA is subject to a rule of reason. That
25 is, when you're evaluating what is the geographic area

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1 over which you're going to look at the impacts from a
2 proposed action?

3 You draw the line based on where you think
4 those impacts are likely to have some sort of
5 consequence that you can measure and evaluate. So for
6 the environmental impacts of water discharges, you do
7 monitoring of the lake in the area near Fermi 2, and
8 you look at how that would be impacted by the
9 additional discharges from Fermi 3 and also what is
10 the ongoing amount of water and discharge that are
11 coming from any other facilities, not just nuclear
12 facilities, not just coal-fired facilities, but all
13 activities in the basin that have an impact on water
14 quality.

15 JUDGE SPRITZER: It seemed to me in
16 looking at the environmental report, and again, you
17 can correct me if I'm wrong, that the focus of the
18 cumulative impact analysis was an area near Fermi 3.
19 It didn't seem to extend much beyond the immediate
20 vicinity of the western end of Lake Erie that you will
21 be discharging to.

22 So I guess my question is, number one: is
23 that correct?

24 And number two, what's the justification
25 for limiting the cumulative impact for that particular

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1 area?

2 MR. SMITH: Yes, that is generally
3 correct. The immediate vicinity that's discussed in
4 NRC guidance for performing cumulative effects
5 analyses for water related discharges is 7.5 miles.
6 So that is the immediate area that we looked at.

7 But that's not to say that that is the
8 extent to which these impacts are considered.
9 Obviously if there were additional discharges that
10 influenced the area near Fermi 2 or Fermi 3 , those
11 would be considered and taken into account.

12 Now, here we didn't identify any
13 additional impacts. There's no mixing between the
14 thermal plumes from the Monroe coal plants or even
15 from the Fermi 2 plume with the proposed Fermi 3
16 plume.

17 So we did implicitly look at those, and
18 there are no other impacts that we've identified that
19 needed to be taken into account, and that brings us
20 back to the contention admissibility standards, which
21 is had the Petitioners demonstrated that the analysis
22 is inadequate in some way, and here they haven't.
23 We've defined our region of interest that we're going
24 to look at consistent with NRC guidance. It's subject
25 to the NEPA rule of reason, and we haven't heard

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1 anything else that would cause us to question our
2 conclusions in that regard.

3 JUDGE SPRITZER: Is the cite to that NRC
4 guidance in your brief somewhere? If it is, you don't
5 need to find it. I'm just --

6 MR. SMITH: It's in NUREG 1555. I'm not
7 sure of the precise citation within there, but it is
8 on the section regarding cumulative impacts. So I
9 think that's maybe 5.3 is perhaps the cumulative
10 impacts discussion of operation.

11 JUDGE SPRITZER: That's fine.

12 JUDGE KENNEDY: Is that the response to
13 the Petitioner's challenge that the region was defined
14 arbitrarily or is there more to it than just using the
15 guidance that the NRC has provided for the
16 environmental report?

17 It seemed like in the environmental
18 sections of your application that depending on the
19 impact you were looking at, you had some basis
20 argument that at least in my mind would quantify the
21 region of interest, and I think these contentions
22 hinge an awful lot on how the region is defined to
23 evaluate the impact of a particular parameter.

24 If the answer is that use is the guidance,
25 then fine, but if there's more, I guess we'd like to

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1 hear it to the best you can communicate or summarize
2 it.

3 MR. SMITH: Certainly, and as you
4 mentioned, that guidance that I was referring to
5 specifically dealt with water discharges. The
6 geographic scope you might look at might be different
7 for different types of effluents or activities. But
8 with respect to that, in particular, the starting
9 point was the 7.5 mile vicinity that is recommended in
10 the NRC guidance. That is supplemented by
11 professional and technical judgment as to whether
12 there are any other impacts that needed to be
13 considered that have an impact or have the potential
14 to be impacted by the operation of Fermi 3?

15 JUDGE KENNEDY: Is there any expectation
16 looking at this long list of proposed reactors, and
17 we've heard about power up rates on Lake Ontario and
18 new reactors on Lake Ontario; is there any expectation
19 that those need to be considered as part of the
20 environmental impact, you know, of future proposed
21 facilities in the Fermi environmental report?

22 MR. SMITH: No, there's not. Those are
23 too far from the site to have any geographic relevance
24 or impact relevance to the operation of Fermi 2 --
25 sorry -- Fermi 3.

1 You all had also asked about the
2 phosphoric acid that's used or discussed in the
3 application. So I'd like to maybe take a moment to
4 explain that. You asked particularly are there
5 estimates of how much would be chemically consumed
6 during operations and what fraction will be discharged
7 to Lake Erie.

8 We noted in our application or in our
9 response that Table 3.6.1 and 3.6-2 describe the
10 chemicals that are added to the circ system and also
11 the effluent chemical characteristics for Fermi 3. We
12 talk about adding a corrosion inhibitor, and that's
13 the 30 percent solution of phosphoric acid. It's a
14 particular chemical by a vendor, and the effluent
15 characteristics are based on using the manufacturer's
16 recommendation, and that's how we get to the 3.5 ppm.

17 Most of that is discharged into Lake Erie.
18 Of course, the discharge effluent stream will, of
19 course, comply with whatever the NAPES permit limits
20 are for phosphorus. That limit is intended to be
21 protective of beneficial uses of water, including
22 preventing algal blooms and any other harmful impacts
23 to beneficial uses.

24 JUDGE CHARBENEAU: Is phosphoric acid used
25 in Fermi 2 as well? You're coming to that?

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1 MR. SMITH: I was going to get to that,
2 but this is right up right now.

3 Fermi 2 does not use phosphoric acid as a
4 corrosion inhibitor. It doesn't use it on a regular
5 basis. It uses it in one subsystem, some portion of
6 the residual heat removal system, and it only
7 occasionally decants.

8 For the NPDES permit for Fermi 2, there is
9 no limit on phosphorus, and that's because it hasn't
10 been found to be part of the discharge from Fermi 2.
11 The pre-permit levels were very low.

12 Some recent measurements showed that the
13 intake concentration, as the water that's coming from
14 Lake Erie, is 0.02 ppm. the outflow was 0.2 ppm, and
15 that's well below any threshold that Michigan DEQ
16 deemed that warranted any effluent limit or even
17 further study.

18 Of course, the phosphoric acid, if there
19 was some need, there are alternative corrosion
20 inhibitors that you can use that don't contain
21 phosphoric acid. That's certainly something we would
22 consider, if that was necessary to comply with the
23 NPDES permit.

24 Regarding algal growth more generally,
25 we've never observed any issues with algal blooms at

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1 Fermi or at any other of the Detroit Edison plants.
2 So there's no operating experience to suggest that
3 this is a potential issue. The outfalls are inspected
4 daily consistent with the NPDES permit. So we do have
5 an ongoing basis for saying that we haven't had those
6 types of problems with power plants.

7 Regarding algal growth generally, all of
8 the data indicates that it's really driven primarily
9 by nutrients contained in runoff. So that's non-point
10 source pollution rather than the point source that we
11 would have discharging effluents from Fermi 3.

12 With respect to Contention 14, the 16
13 pages of that contention is mostly repetitive of stuff
14 that is in Contention 1 and Contention 6. There's
15 only one real new issue that's raised there, and
16 that's the toxic and etiological agents that are
17 discussed. The proposed contention merely cuts and
18 pastes large sections of the ER where we discuss the
19 potential impacts and the steps we've taken to reduce
20 them to safe levels or to insure that they don't
21 become a problem.

22 The Petitioners have not provided any
23 explanation of how those impacts are not adequately
24 discussed or how they would lead to some different
25 type of adverse impact on the environment that was not

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1 considered, and for this reason Contention 14 like the
2 other two contentions is inadmissible.

3 JUDGE SPRITZER: Very well. Thank you.

4 Let's hear from the NRC staff.

5 MS. CARPENTIER: Thank you.

6 I will begin by saying that we also stand
7 by what we have submitted in our written answers so
8 far and have a few comments to add and then to address
9 the Board's questions.

10 First, when we were addressing Contention
11 1 and Contention 6 together, they are to some extent
12 contradictory on their face because one is suggesting
13 that there needs to be a larger region of interest for
14 some impacts and another suggesting there needs to be
15 a smaller region of impact for some impacts.

16 We don't think that this is a flat out
17 contradiction because obviously it does depend on what
18 the impact is, and we believe that the Applicant's ER
19 has scaled things appropriately for the impacts being
20 considered.

21 In terms of the first question, just a
22 moment. Here we are.

23 About the consideration of the cumulative
24 effects in terms if a baseline, we agree with the
25 Board's decision in Calvert Cliffs that considering

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1 the impacts in aggregate is sufficient and that the
2 individual sources do not need to be called out
3 individually. The cumulative effects in this case
4 would certainly include anything that has a measurable
5 impact in the region under consideration, and that
6 includes the Davis-Besse facility.

7 Regarding license renewal, we know of --
8 just a moment -- we know of three plants that are
9 considering that. One has actually submitted an
10 application, and my paper is out of order. Just a
11 moment.

12 Here we are. The Kewanee Plant on Lake
13 Michigan has submitted an application. Davis-Besse
14 and Perry are considering it, but as far as I know as
15 of this past weekend we have not received the
16 applications yet.

17 JUDGE SPRITZER: Is there any reason to
18 think --

19 MS. CARPENTIER: Any reason to think?

20 JUDGE SPRITZER: -- these license renewals
21 would affect baseline conditions for Fermi 3?

22 MS. CARPENTIER: If something changed,
23 possibly, but we have no reason to think that that
24 would be the case, and you know, there's no reason to
25 think that any emissions that exist would change or

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1 that the effects would change.

2 JUDGE SPRITZER: Based on what you know
3 today.

4 MS. CARPENTIER: Yes, yes. Distances
5 between the proposed Fermi reactor and proposed
6 nuclear facilities in Canada, have you received all of
7 the information you need on that? Or I have a list
8 here.

9 JUDGE SPRITZER: I think we've heard.

10 MS. CARPENTIER: Okay.

11 JUDGE KENNEDY: Yeah, I'm good.

12 MS. CARPENTIER: Okay. And the
13 significant new federal actions, the proposed license
14 renewals and decommissioning of Fermi 1.

15 JUDGE SPRITZER: Are there any other
16 federal actions in addition to was it Nine Mile, Point
17 3 in Lake Ontario that you know of? Any other
18 proposed licensing actions other than the renewals
19 you've already mentioned?

20 MS. CARPENTIER: Not that we're aware of,
21 no.

22 JUDGE SPRITZER: Okay.

23 MS. CARPENTIER: Do you have any other
24 questions for us?

25 JUDGE KENNEDY: Just one of the questions

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1 that we asked appears to be a contradiction between
2 whether the Applicant has considered lake levels.
3 Petitioner has challenged that the change in water
4 level either to global warming or wind effects hasn't
5 been considered in the Applicant, and I'll address it
6 to you first, but maybe the Applicant could speak up.

7 MS. CARPENTIER: Yes, I believe we argued
8 in our written submission that it has been considered.

9 As far as the difference in materials that the two
10 other parties are citing to support their positions,
11 I think they should speak to those.

12 MR. SMITH: Thank you.

13 The application does consider water level
14 changes that are well within and actually outside the
15 range of water level changes that were posited to
16 occur as a result of climate change. The design of
17 the plan is based on the record, historical range,
18 including the record low, with an additional margin of
19 safety to take into account the limited accuracy of
20 that time frame.

21 The elevation of the bottom of the intake
22 bay at the entrance to the pump house is 559 feet, and
23 that's several feet below the record low water level,
24 which is, again, ten feet or so below where we are
25 now.

1 JUDGE KENNEDY: The petition seems to
2 paint a picture of tire consequences in terms of
3 during operation of the level dropping below some
4 number. I guess below the intake structure. What in
5 actuality -- I get a sense these are slow, evolving
6 time frames, and what actually happened within the
7 environment of an operating plant?

8 Let's say Fermi 3 doesn't receive licenses
9 and operation and we continue to see dramatic changes
10 in lake level. What actually would occur within the
11 operation of the facility?

12 MR. SMITH: Right now there would be no
13 change in the operation of the facility. Even if you
14 took into account a one meter or three to six and a
15 half feet decline in water levels, there's enough
16 margin built into the intake design and the ability to
17 get water from Lake Erie right now that you would not
18 have any operational impacts.

19 An additional point there is a factual
20 comment that they talk about the intake structure
21 being 1,3090 feet offshore. That's actually the
22 discharge structure that goes out that far. The
23 intake bay is up against the shoreline, and there is
24 a dredged canal. It's not actually shored on each
25 side, but that goes out to the deep part of the lake.

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1 So there should be no change in the operations or the
2 way in which the facility accesses water.

3 JUDGE KENNEDY: Is there any sort of limit
4 during operation? Is lake level monitored or
5 distanced to the intake structure monitored and is
6 there a limit on when you can operate the plant within
7 those limits? Is this something that -- is the
8 analysis tied together, I guess, with the operation of
9 the facility? I mean, is there some sort of inherent
10 limit?

11 MR. SMITH: Yes. The water level is
12 measured during operation of the facility. The only
13 limit that exists currently is the entrance to the
14 pump house at 559 foot elevation. So that's the only
15 operational limit. If you got below that, you would
16 need to take steps to gain access to more water.

17 These is an ability to do that if you need
18 to at that time, but that is the minimum operating
19 condition, and that, again, is well below -- that's
20 almost four feet below the record low water level for
21 Lake Erie.

22 JUDGE CHARBENEAU: In the applicant there
23 were a number of analyses that were done on the
24 thermal plume, discharge plume, and I don't remember
25 that number, but was one of these done under the low

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1 water level conditions?

2 MR. SMITH: Yes, it was. I believe we
3 looked at a variety of different conditions, not just
4 low water level, but also there's wind conditions or
5 changes in currents as well.

6 JUDGE CHARBENEAU: Thank you.

7 JUDGE SPRITZER: Was there anything
8 further from the staff?

9 MS. CARPENTIER: No, there's not unless
10 you have further questions.

11 MR. LODGE: I wonder if the Petitioners
12 might have five minutes for rebuttal.

13 JUDGE SPRITZER: You did use your 15
14 minutes, but we'll give you a minute or so for
15 rebuttal if you can.

16 MR. LODGE: Try to compress it.

17 JUDGE SPRITZER: Compress it, yes. We
18 want to get to all of the contentions today if we
19 possibly can.

20 MR. LODGE: Thank you.

21 I think one of the most recent discussions
22 eliminates the fact that this Lyngbya wollei problem,
23 for instance, has the nutrient levels from the
24 phosphorus dumping that will occur three and a half
25 tons a day are not evaluated in the ER. Lyngbya

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1 wollei and other algae are on a rebound in Lake Erie.
2 They are creating a growing annually increasing
3 summertime dead zone in the lake.

4 The climate change that is apparently
5 certain to occur is also going to have heightened
6 effects for when nuclear power plants can operate. As
7 I'm sure this panel is aware, in Europe, in France
8 several years ago there were actual closures of
9 plants, of nuclear power plants, because the water
10 temperature for cooling purposes was too high.

11 I'd like to talk one last time about the
12 mixing, the thermal mixing. As I indicated earlier,
13 10.6 billion gallons a day is withdrawn and returned
14 to Lake Erie for purposes of cooling. One, point,
15 nine billion of that, or 18 or 19 percent of that
16 total, is withdrawn and returned by the Monroe Coal
17 fired plant alone.

18 That plant is approximately three to four
19 miles south of the Fermi site. It would have a huge
20 plume, a huge thermal plume because it does not have
21 a cooling tower, and there's no discussion in the
22 environmental report anywhere about mixing of any
23 Fermi thermal effects or interactions or synergism
24 with any plant but Fermi 2.

25 We believe that while there are several,

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1 there are a couple of arguments we are making about
2 scoping and about segmentation that Contentions 1 and
3 6 certainly are appropriately phrased and each of them
4 does -- they're concurrent and simultaneously may be
5 considered. We believe that in sum that the baseline
6 -- the snapshot that appears in the ER is a starting
7 point, as counsel for DTE indicated. It's a starting
8 point.

9 These power up rates will increase, will
10 have thermal effects. They will have other cumulative
11 chemical types of impacts on the Great Lakes basin.
12 The fact that there are letters of intent to see up
13 rates filed, that is a formal notification to the NRC
14 of the utility's intention. We believe that Kelepi
15 limits the consideration to formal regulatory acts
16 that are pending, but those are formal acts.

17 Thank you.

18 JUDGE SPRITZER: Very good. All right.
19 I think now would probably be an opportune time to
20 take a ten-minute break before we get to low level
21 waste, which will also take some time. So it's five
22 of 11. We'll start again at five after 11.

23 (Whereupon, the foregoing matter went off
24 the record at 10:57 a.m. and went back on
25 the record at 11:07 a.m.)

1 JUDGE SPRITZER: All right. Back on the
2 record.

3 We are now going to proceed to hear
4 argument on contention 3. Contention 3 concerns an
5 issue that has arisen in a number of Licensing Board
6 cases, basically the effect -- that concerns basically
7 the effect of the closure of the Barnwell, South
8 Carolina disposal facility, which had been used by a
9 number of nuclear powerplants for disposal of Class B
10 and Class C low-level radioactive waste.

11 That facility is no longer receiving waste
12 from most states, including Michigan. And, therefore,
13 the question has -- this contention alleges that there
14 is insufficient description of how the Applicant plans
15 to manage low-level radioactive waste that will be
16 generated once Fermi 3 begins operation, if indeed it
17 does.

18 And we will hear first from the
19 Petitioners. Mr. Lodge?

20 MR. LODGE: Thank you very much. I am
21 going to address the Board's questions, with our
22 responses, the first question being: what anticipated
23 inventory of LLRW will be stored and managed onsite?

24 The amount of waste, we don't know what
25 quantity is going to be. We do know that it will be

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1 many thousands of curies over 40-, 60-, or 80-year
2 operating life, and possibly, perhaps probably, beyond
3 that. That Classes B and C make up the majority of
4 the LLRW at any reactor, and we believe Fermi to be
5 pretty much the same in that respect.

6 Number 2, what, if anything, in the
7 environmental report sets forth the Applicant's
8 current plan for offsite shipment and disposal or
9 interim storage of LLRW generated by Fermi 3. Storage
10 in the application documents is apparently for six
11 months as we have previously argued.

12 There is reference by the Applicant to
13 complying with NUREGs and with NRC guidance documents.
14 These, however, are not a substitute for hard
15 regulation, hard standard.

16 You asked, what specific role does 10 CFR
17 51.51, Table S3, play in this contention? The role
18 appears to -- S3 gives the amount of radioactivity
19 generated at every step of the fuel chain. It does
20 not appear to include long-term storage of Class B, C,
21 and greater than C waste. Moreover, S3 does not have
22 any kind of entry for emissions from storage, and
23 there, thus, is no entry for what kind of public
24 exposure could befall from storage.

25 JUDGE SPRITZER: In regard to the Table S3

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1 issue, as you probably know, the Commission has made
2 it quite clear to Licensing Boards that we are not to
3 entertain any contentions that would require us to
4 challenge the assumptions or conclusions of Table S3.

5 So our question for you, the question I
6 most want to hear from you, is, can we get at the
7 concern -- the issues that you are most concerned
8 with, about low-level radioactive waste, without
9 entertaining a challenge, without a challenge to Table
10 S3? That is, can we focus -- and what I mean in
11 particular by that is, can we focus -- can we address
12 your concerns by limiting our focus to what you might
13 call -- what you have been calling "storage" or "long-
14 term storage" without getting into the issue of
15 permanent disposal?

16 MR. LODGE: Yes. We believe so. As has
17 already been established by the Licensing Board in the
18 Calvert Cliffs case, we believe it is entirely
19 possible that the thread here does lie, as the Calvert
20 Cliffs board indicated, in the storage of B, C, and
21 greater than C waste, and the environmental
22 consequences of extended onsite storage.

23 We believe that that is a very valid NEPA
24 issue. In essence, there is no place that the pipe --
25 the drain is plugged right now, and we have no

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1 particularly great guidance as to knowing when or if
2 there will be an appropriate license -- low-level
3 radioactive waste disposal mechanism or facility.

4 What we do understand right now that is
5 happening is that some generators, some utility
6 generators, are sending their waste for processing to
7 firms, but are essentially still stuck with title
8 problems and with non-disposal options.

9 JUDGE SPRITZER: You mentioned emissions
10 from storage. Can you clarify that, please?

11 MR. LODGE: Any type of radioactive
12 effects -- number one, we don't know what the actual
13 storage methods contemplated are onsite, because, of
14 course, the ER doesn't address it at all. Therefore,
15 it could be something as primitive, we believe, as
16 simply holding things in drums for periods of decades
17 to perhaps more secure types of methods. We don't
18 even know if it would be storage methodologies that
19 are under a roof.

20 But incineration is another possibility or
21 option. Again, we don't know if that would be
22 something that is contemplated. This is a contention
23 of omission, where we are asking for this problem to
24 be addressed within the context of NEPA.

25 We are also asking the Board to consider

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1 that there is presently no disposition for greater
2 than C waste. We understand that that is a federal --
3 a DOE responsibility, problem if you will, but we also
4 know that the long and -- I don't know how to call it
5 anything but the long inactivity by the Department of
6 Energy, until quite recently, in terms of even
7 promulgating -- even indicating that they are going to
8 consider options for disposal of greater than C.

9 JUDGE SPRITZER: What stage is the
10 Department at right now?

11 MR. LODGE: They have I believe indicated
12 a notice of intent to consider suggestions for --
13 under NEPA for an environmental impact statement.

14 JUDGE SPRITZER: Do they have -- that
15 suggests they have some sort of proposal in terms of
16 what they would do with greater than C waste, or at
17 least some set of proposals.

18 MR. LODGE: It may suggest that, but they
19 ain't saying.

20 JUDGE SPRITZER: All right.

21 MR. LODGE: We would ask --

22 JUDGE SPRITZER: You don't have to take
23 your entire 15 minutes.

24 MR. LODGE: I was going to say, we would
25 ask if we could reserve our remaining time.

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1 JUDGE SPRITZER: That would be fine.

2 For the Applicant, Mr. Smith?

3 MR. SMITH: Thank you. The Petitioners
4 are arguing here that Detroit Edison has failed to
5 discuss how it is going to be able to send its waste
6 offsite in the absence of a licensed disposal site.
7 And I think it is important to point out that their
8 assumption here is based on incorrect premise. That
9 is, just because the waste is generated doesn't mean
10 it has to be stored onsite indefinitely.

11 Certainly, there are -- first, this is an
12 operational issue. The plant, as licensed, has a --
13 I'm sorry, the design has a six-month storage for low-
14 level rad waste. The DCD also discusses what
15 parameters and what requirements would apply to a
16 temporary storage building, if one was necessary to be
17 built.

18 So this -- the need for a temporary
19 storage is accounted for in Section 11.4 of the design
20 -- DCD, design control document. That is for the
21 ESBWR.

22 JUDGE KENNEDY: Let me make sure I
23 understand that. So that there is a design -- it is
24 the basic design is for six-month onsite storage.
25 There is a contingency built into the design for a

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1 temporary onsite low-level waste storage facility?

2 MR. SMITH: Yes.

3 JUDGE KENNEDY: Is that -- I didn't want
4 to mishear you.

5 MR. SMITH: No. That is correct. I am
6 looking at page 11.4.2 --

7 JUDGE KENNEDY: Okay.

8 MR. SMITH: -- of Rev 5 of the design
9 control document. It says that, "Depending on the
10 availability and accessibility of adequate waste
11 repositories in the future," then highlights various
12 guidance documents that provide guidance for
13 construction and management of a temporary storage
14 facility.

15 JUDGE KENNEDY: So is it fair to
16 characterize any of the radiological consequences of
17 this six-month storage is in the application? If you
18 were to build a temporary facility, that would be a
19 yet-to-be-done analysis? Or is that analysis -- is
20 there some sort of bounding analysis within the
21 current design envelope?

22 Okay. I didn't make that clear. There is
23 a six-month planned storage, and it sounds, from what
24 you are saying, that that is all integrated through
25 the design, so that any radiological consequences of

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1 six months of onsite storage is included.

2 MR. SMITH: Yes.

3 JUDGE KENNEDY: Now, the contingency
4 facility, that is yet to be designed and analyzed or
5 -- I apologize. I haven't --

6 MR. SMITH: It is yet-to-be-designed.

7 JUDGE KENNEDY: Okay.

8 MR. SMITH: Perhaps I can -- I think I can
9 help explain here. The design has not -- there is no
10 final detailed design, but the processes that would be
11 in place, the mechanisms by which you manage the
12 waste, the parameters and the limits on that are
13 constrained in the design.

14 It talks about using -- you are going to
15 follow Reg Guide 8.8, which is -- requires compliance
16 with the ALARA, as low as reasonably achievable. It
17 is going to be designed to prevent the release of
18 significant quantities of radioactive materials, such
19 that you are within the public dose limits of 10 CFR
20 Part 20, and the limits in 10 CFR Part 50, Appendix I.

21 They are also going to package the waste
22 for offsite shipment and disposal and compliance with
23 applicable NRC and DOT, Department of Transportation,
24 regulations. That is how you are going to ensure that
25 doses to the public and individuals is within

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1 regulatory limits.

2 And the site -- the building itself is
3 going to be designed to certain seismic and quality
4 group classification and corresponding codes and
5 standards. So there are some parameters within which
6 that temporary building would be designed.

7 JUDGE KENNEDY: Okay.

8 JUDGE SPRITZER: Are you reading now from
9 the design control document or is this the
10 environmental report?

11 MR. SMITH: That is from the design
12 control document. And I think -- that is right, more
13 storage doesn't necessarily mean that there is going
14 to be more consequences. You manage the waste in a
15 very similar way, because you are managing it in order
16 to limit and reduce the impacts to as low as you can
17 achieve.

18 JUDGE KENNEDY: Would it be safe to say
19 there would be an analysis that would put a limit on
20 how much waste could be stored onsite, or am I making
21 it too simple?

22 MR. SMITH: I am not sure that there would
23 necessarily have to be a limit as to how much waste
24 could be put onsite. There is not currently limits on
25 that in operating licensed facilities. There is no

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1 limit to the amount of waste that can be stored
2 onsite. Any limit, if it exists, is a practical one,
3 in that, do you have space to store the waste?

4 JUDGE KENNEDY: And then, subject to
5 whatever offsite or worker consequences there would be
6 of storing. So that --

7 MR. SMITH: Correct. Right.

8 JUDGE KENNEDY: Okay.

9 MR. SMITH: And, again, there are other
10 alternatives for handling this waste, other than
11 creating additional onsite storage. And these are
12 some of the options that we have discussed in our
13 responses. In particular, one option is to ship the
14 waste to a third-party vendor who can process the
15 waste and then store the waste until disposal
16 facilities are available.

17 Certainly, at that point, you wouldn't
18 have space limitations at the site. You can ship it
19 to a facility that is licensed to store that material.

20 And this possibility is contemplated in
21 the ER itself. Section 3.8.3 of the ER, which
22 discusses the transportation of radioactive waste --

23 JUDGE SPRITZER: What was that number
24 again? Sorry.

25 MR. SMITH: Section 3.8.3. It is on

1 radioactive waste transportation. It notes that the
2 packaged waste could be stored onsite on an interim
3 basis before being shipped offsite to a licensed
4 volume reduction facility, or to a disposal site. So
5 that is one of the options I talked about earlier is
6 that you could send it to a licensed volume reducing
7 site or storage site.

8 Section 5.11.7 also contemplates one of
9 the alternatives that we talked about earlier. That
10 is that the low-level waste may continue to be shipped
11 to a disposal site, or the waste may be stored onsite
12 at Fermi for various periods of time.

13 And this leads to a question you had asked
14 in your questions for the parties, which is, what is
15 the current status of low-level waste generated by
16 Fermi 2? And maybe a little history that is here is
17 that Michigan was initially part of the Midwest
18 Interstate Compact, but because Michigan -- its
19 membership was revoked after it failed to live up to
20 its responsibilities as the host state.

21 At that time, Fermi 2 constructed an
22 onsite storage facility -- that is the OSSF -- that is
23 designed to store 40-plus years of Class B and C
24 waste. So, again, one option is to -- perhaps to use
25 that additional storage space if it comes to that. If

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1 operational needs require you to have additional space
2 for storing low-level waste, there are options for
3 doing that.

4 JUDGE SPRITZER: So that is a facility to
5 store up the 40 years' waste for Fermi 2?

6 MR. SMITH: Correct.

7 JUDGE SPRITZER: So you would have to
8 build, I take it, another facility for -- or expand
9 that facility or build another similar one for
10 Fermi 3?

11 MR. SMITH: Sure. The combined -- the
12 overall capacity would be whatever that capacity is,
13 and you could fill it with Fermi 2 or 3 waste,
14 potentially, depending on the need to do that, if
15 there was a need at that time based on operational
16 considerations.

17 There is really nothing that the
18 Petitioners have put forward to call into question the
19 ability of Detroit Edison to manage and safely store
20 the waste onsite in whatever volume or inventory might
21 be present on the site. And that really goes to the
22 heart of the contention, which is, have they
23 established that there is a genuine dispute with the
24 Applicant on a material issue?

25 And here they haven't raised any

1 indication that Detroit Edison cannot manage the
2 materials safely and securely. And this is similar to
3 what the Commission noted in a recent Commission
4 decision. They said, "We haven't run across any
5 problems with applicants managing and storing waste
6 onsite." So it is really their burden to show that
7 there is some reason here why that conclusion would be
8 different, and they have not done that here.

9 JUDGE SPRITZER: So Fermi 2, at present,
10 is using this -- are they using this OSSF for the low-
11 level B and C waste?

12 MR. SMITH: Yes, they are.

13 JUDGE SPRITZER: Or 2.

14 MR. SMITH: Yes. But there are also other
15 methods you can use to reduce both the hazards of a
16 waste to, say, prevent the waste from becoming B and
17 C waste, such that it may remain as Class A waste and
18 can be disposed of in other available facilities.

19 These options include onsite resin
20 blending or use of short-run filters rather than
21 longer-run filters. So there is a lot of volume
22 reduction techniques that can be applied now that we
23 don't have -- currently have B and C disposal space
24 available.

25 JUDGE SPRITZER: I suppose there are two

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1 aspects to the contention. One is a safety
2 contention, whether you can in fact safely store the
3 waste onsite. As a NEPA contention, the question is
4 more, has that plan, whatever it might be, been
5 adequately disclosed in the environmental report? For
6 NEPA, of course, there is not -- you may have any
7 number of safe -- reasonably safe options available to
8 you.

9 The question is: has the option that you
10 have decided to pursue been set forth and analyzed in
11 the environmental report, whatever it might be? Could
12 be several options maybe, but is -- could someone read
13 the environmental report and say, "I understand how
14 they are going to deal with the problem"? And is that
15 true at present?

16 MR. SMITH: I believe it is. The
17 environmental report discusses the systems and the
18 processes that are going to be in place at the plant
19 for managing low-level waste, whether it is there for
20 six months or whether it is there for 20 years. That
21 is in the ER, and that is clearly spelled out in both
22 the ER and in the safety documents as well.

23 So matter how you break up the contention,
24 the Applicant has described the processes and the
25 procedures and the parameters that it is going to use

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1 to ensure safe storage. The Petitioners have not
2 introduced anything that would call into question
3 those conclusions that are in the ER or in the SAR.
4 And that really is their burden at this point in time.

5 JUDGE SPRITZER: All right. Let's hear
6 from the Staff.

7 MS. CARPENTIER: Thank you. We agree with
8 the Applicant that the detail concerning plans to
9 handle low-level waste is found in the design control
10 document in Section 11.4, which is where we would
11 expect to find the detail. We stand by our arguments
12 regarding the contention, as they originally submitted
13 it, as a NEPA contention. And we do not think that it
14 meets the pleading standards of 10 CFR 2.309(f)(1).

15 We find that all of the specificity about
16 the plan is found on the safety side, and so that is
17 where we are focusing some of our review attention, as
18 referenced in certain RAIs that have been filed
19 recently.

20 As far as 10 CFR 50.51 and Table S3, the
21 law in this area seems to be evolving. And it is not
22 entirely clear yet, but, as we understand it, the
23 table deals with low-level waste disposal, or more
24 broadly it deals with uranium fuel cycle impacts on
25 both the front end and the back end of the process.

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1 So mining, producing the fuel, and then disposal at
2 the other end.

3 If the Petitioners meant to address
4 disposal, which it doesn't sound like they did,
5 although in their initial filing that was not clear,
6 then we don't think that it would be possible to
7 address that issue without grappling with Table S3 in
8 some way.

9 And how that would be -- well, it is a
10 hypothetical matter at this point, but there are
11 certain things that the table itself says are reserved
12 for resolution in individual proceedings. And if they
13 had chosen one of those, well, that is another matter.
14 However, they have indicated that that is not their
15 main interest. Their main interest is the storage.

16 And, again, we believe that that is an
17 issue that can be addressed without the use of this
18 table. However, the regulatory authorities and other
19 interesting matters are on the safety side, and they
20 are not really on the NEPA side from our perspective.
21 Now --

22 JUDGE SPRITZER: Well, with respect to a
23 safety contention, Table S3 is of course part of the
24 NRC's NEPA regulations.

25 MS. CARPENTIER: Yes.

1 JUDGE SPRITZER: It doesn't have any
2 effect, does it, on a safety contention?

3 MS. CARPENTIER: No. No. That is what we
4 are saying. There are sort of two pathways, and it is
5 something of an either/or proposition.

6 JUDGE SPRITZER: Right.

7 MS. CARPENTIER: The Board asked us a
8 question about low-level waste in the context of
9 contention 7. I wasn't sure if you wanted us to
10 discuss that here, or if you would like to wait until
11 we are discussing contention 7 to get to that matter.

12 JUDGE SPRITZER: Whichever you would
13 prefer. We asked it in connection with contention 7.
14 But it obviously overlaps, so if you want to talk
15 about it now, that would be fine.

16 MS. CARPENTIER: Okay. Well, one other
17 matter first, however. You asked about capacity of --
18 rather, about the inventory. And we have some
19 information about that. It is not something that we
20 would introduce into evidence at this point. It is
21 back-of-the-envelope calculations based on the design
22 control document and also on some industry experience
23 that some of our technical people have talked about.
24 Are you interested in a rough estimate at this point?

25 JUDGE SPRITZER: Yes.

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1 MS. CARPENTIER: Yes, okay. Table 11.4.2
2 in the design control document gives the total
3 inventory of low-level waste anticipated on an annual
4 basis. And that includes Class A waste.

5 Our technical folks have been looking at
6 industry experience to back out the quantity that
7 would be Class A, to leave the remainder as Class B
8 and C. And the estimate they have come up with is
9 something in the vicinity of 290 cubic feet per year
10 of B and C waste.

11 However, they are not here for you to
12 question, so, you know, take that for what it is
13 worth. It is only an estimate at this point.

14 JUDGE SPRITZER: That is fine.

15 JUDGE CHARBENEAU: If the license is
16 eventually issued, and a need is found in the future
17 to build a low-level -- or expand low-level storage,
18 does that require a change in the license, or is that
19 something -- how does that work?

20 MS. CARPENTIER: That leads us right into
21 the contention 7 question.

22 JUDGE CHARBENEAU: Okay.

23 MS. CARPENTIER: So all of the various
24 regulations that apply, and all of the guidance
25 documents, have been all assembled in one document by

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1 the Commission. It was published on December 30,
2 2008, in response to the closure of Barnwell. This is
3 not evidence. Again, it is not guidance, it is not a
4 regulation, it is simply a place where a lot of
5 information is assembled all in one place. And what
6 I am about to say is drawn from that.

7 The ML number for it is ML082190768, if
8 you want to look at it in more detail and with some
9 historical background. But the short answer to your
10 question is addition of more capacity, of more low-
11 level waste storage capacity, is typically handled as
12 a change under 10 CFR 50.59, and does not typically
13 require an actual license amendment under 50.90.
14 50.59 has the criteria that would require you to go
15 over to the amendment process, but it does not usually
16 happen that way.

17 As far as other things that are in this
18 document I just mentioned, it talks about how onsite
19 storage facilities must comply with 10 CFR Part 20,
20 including 20.1801, which is security of stored
21 materials. That is a hard regulatory limit. It also
22 must comply with the ALARA principle, which is also in
23 the regulations.

24 It must be accounted for in Part 20,
25 radiation protection protections, including all

1 monitoring requirements. And it also calls up three
2 general design criteria of Part 50 that apply.
3 General Design Criterion 61, fuel and waste must be
4 handled to maintain adequate safety under normal and
5 accident conditions. 63 says that the waste systems
6 must include systems for detecting conditions that may
7 lead to excessive radiation levels, and Criterion 64
8 is about monitoring the level of radioactivity in any
9 conceivable effluent release pathway.

10 So that is the summary of this document
11 that I mentioned, and the -- you know, the lengthier
12 discussion is in the document itself.

13 JUDGE SPRITZER: Let me ask the Staff a
14 question similar to the one I asked Mr. Smith. And
15 that was, looking at this as a NEPA contention, and
16 assuming that as of the time the Staff publishes its
17 EIS we are in the same situation we are now without --
18 with Barnwell still being closed and no other disposal
19 site available, would the ER need to -- I guess it is
20 a two-part question.

21 Would the environmental impact statement
22 need to describe the current plan for managing low-
23 level waste? Not in terms of a bunch of hypotheticals
24 but what their plan actually is. And if the answer to
25 that question is yes, does the environmental report

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1 that the Applicant has submitted in fact do that?

2 MS. CARPENTIER: As I recall, the
3 environmental report currently refers readers over to
4 the FSAR, which is Part 2 rather than Part 3 of the
5 application. And so the substance isn't there. It is
6 an incorporation process. And I would imagine that
7 Staff review documents would do something similar
8 rather than simply restate the same information, that
9 they would then take it to the next step and look at
10 any consequences that might occur, assuming that any
11 were identified.

12 JUDGE SPRITZER: Okay. Anything further
13 from the Staff on contention 3?

14 MS. CARPENTIER: Not unless you have any
15 further questions.

16 JUDGE SPRITZER: All right. From the
17 Petitioners, do you have any reply rebuttal on
18 contention 3?

19 MR. LODGE: Do you have any idea how much
20 rebuttal time we have?

21 JUDGE SPRITZER: I will give you five
22 minutes. I don't think you used too much --

23 MR. LODGE: Thank you very much.

24 JUDGE SPRITZER: -- of you initial time.

25 MR. LODGE: With all due respect, a

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1 proposal to trust us by the Applicant is not a plan.
2 You have a plan to have a plan. As we indicated in
3 our first argument, a Staff working paper -- the
4 guidance documents -- guidance documents are not law.
5 They are the Staff's opinion on how regulations might
6 be satisfied. That is hard case law within the NRC
7 itself.

8 And, thus, to simply offer a shopping list
9 of statutes or regulations to which the Applicant
10 might wish to comply, without selecting a direction,
11 without offering the public in the NEPA document the
12 hard look to critique and comment upon, and possibly
13 offer better guidance, is meaningless.

14 And if there is any question but that the
15 LLRW issue is sitting wide open, the Petitioners made
16 reference in their April 10th reply to March 9th,
17 which was our deadline to file our petition to
18 intervene to correspondence from the NRC Staff to the
19 Applicant in its review of the combined operating
20 license, wherein the Staff asked DTE to describe the
21 facility's plan for long-term storage of low-level
22 radioactive waste that could be projected to be
23 generated during the operation of Fermi 3.

24 This issue is open. It is still evolving.
25 It isn't completed. It certainly -- things appear to

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1 be -- to follow Your Honor's question to the Staff, it
2 certainly appears to me, and should to the Board, that
3 there is not -- this isn't ready for NEPA analysis yet
4 by the public, because there isn't a selected option.

5 We don't know if incineration isn't one of
6 the options that might be considered for Fermi 2, much
7 less Fermi 3. We don't know what the projected or
8 anticipated levels of radioactivity of the 290 cubic
9 -- how can they quantify the amount and not be able,
10 at the same time, to give us some information about
11 the possible radiation?

12 In short, we believe that there is a lot
13 of problems in the presentation so far. Moreover, we
14 have on disk, and can offer the parties as well as the
15 Board, an April 17, 2009, investigative briefing by
16 the NRC itself with representatives -- pardon me, to
17 the Commissioners, that involved representatives from
18 the low-level radioactive waste forum, and I believe
19 the State of Texas, talking about the LLRW issue.

20 The radioactive waste forum
21 representatives indicated that they are seriously
22 concerned and are -- were seeming to implore the
23 Commissioners to take a look at this growing potential
24 problem of utilities sending their waste to
25 intermediate processors, and what the taking title

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1 implications of that might be, and the legalities as
2 well as the regulatory and practical dealing with that
3 waste material. Where does the Disposal Act, legally
4 speaking, regulatorily speaking, occur?

5 This is an issue, in short, that is quite
6 unresolved, even at the Commissioners' level of the
7 Nuclear Regulatory Commission.

8 The scheme that the Applicant is proposing
9 for storage has difficulties essentially at every
10 stage that must be clarified, must be disclosed, and
11 must be available for some exterior analysis by the
12 public.

13 Thank you.

14 JUDGE SPRITZER: Very well. Let's move
15 on, then, to contention number 5, I believe is next on
16 our list. And the substance of this -- well, I will
17 simply read it. "The Fermi site may have problematic
18 hydrology likely to allow offsite transport of
19 chemical and radiological contaminants."

20 It goes on to state -- this is page 50 of
21 the revised edition, "Detroit Edison's current
22 hydrological studies are woefully inadequate,
23 currently omitting key data on factors important to
24 hydrological radionuclide transport and lacks key
25 adequate onsite measurements."

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1 And we will be hearing first from the
2 Petitioners. Mr. Kamps? Move the microphone over, if
3 you want.

4 MR. KAMPS: Good morning, Your Honors.

5 JUDGE SPRITZER: Good morning.

6 MR. KAMPS: My name is Kevin Kamps with
7 Beyond Nuclear, and also on the Board of Don't Waste
8 Michigan.

9 The one question that you asked of us to
10 address on number 5 is, what is the source of the
11 fast-moving plumes of radioactive contamination that
12 could threaten the Bass Islands Group sole source
13 aquifer?

14 And I would refer you back to our filings
15 thus far on the radioactive releases from the proposed
16 Fermi 3 reactor and its interaction with chelating
17 agents that we described in our March 9 filing, and,
18 again, in our April 10th filing.

19 The key issue here is that any permitted
20 releases of radioactivity or leaks or spills from
21 Fermi 3, in addition to radioactive contamination from
22 Fermi 2 as well as from Fermi 1, that interacts with
23 chelates in the environment, whether used directly at
24 the Fermi nuclear powerplant in the course of its
25 operations or even decommissioning activities, or

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1 chelates that are present in the environment, whether
2 due to water pollution in Lake Erie or even naturally-
3 occurring chelates on the site, could interact with
4 the radioactivity, bind to it, and cause a fast flow
5 of radioactivity into any available surface or
6 groundwater flow pathway.

7 And of significance in this particular
8 location is a sole source aquifer in the nearby
9 vicinity, which is the Bass Islands aquifer,
10 capital A, located at Catawba Island, Ohio, just 35
11 miles away. And we would assert that given the lack
12 of data that is admitted to by the company, and the
13 Nuclear Regulatory Commission staff has identified
14 this in its request for additional information, we
15 don't know that the aquifer beneath the Fermi site,
16 which is the Bass Islands aquifer, little A, and the
17 Bass Island aquifer at Catawba Island, Ohio, are not
18 connected. And we would assert that this is --
19 because it is a sole source aquifer, that this is a
20 very significant issue that needs to be addressed.

21 And we did only receive this information
22 on March 6th, which was three days before our
23 contention filing. So, in good faith, we tried to do
24 our best on preparing this contention by the March 9th
25 filing deadline. And as you saw, we requested that as

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1 more information becomes available from the company --
2 and they have indicated that September 1st is their
3 projected date for that information -- that we could
4 revise and update our contention.

5 JUDGE SPRITZER: Just a general note on
6 that. You know, if we grant a request for a hearing,
7 and set a scheduling order, we will normally include
8 dates for submitting new and amended contentions.
9 However, you don't necessarily have to wait for us to
10 do that. 309(f)(2) sets forth a procedure when you do
11 -- when and if you do receive information that you
12 think could support a new or amended contention.

13 Of course, you need to comply with all of
14 the requirements of the rules, but there is a
15 procedure in there for doing that. So you don't need
16 permission in advance, if that should come up.

17 MR. KAMPS: And I think just to emphasize
18 the significance of this issue, I wanted to call to
19 your attention and would ask our counsel if he would
20 to distribute copies of a U.S. EPA comment during the
21 environmental scoping proceeding regarding Fermi 3
22 that under the second bullet on the first page, which
23 you will receive copies of -- and I have another copy
24 if you need it -- I will just read it.

25 The EPA states to the NRC, "We understand

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1 that the site may have subsurface carsed geology. We
2 recommend that the EIS address whether there is carsed
3 geology, and, if present, evaluate how this geologic
4 setting may influence the project's environmental
5 impacts. To facilitate our review, we would
6 appreciate knowing whether carsed geology is present
7 as soon as this information is available."

8 And this just underlines what we tried to
9 express in our filings, that there is a great deal
10 that is unknown about the subsurface at the Fermi site
11 and its interactions both with the lake -- Lake Erie
12 and with the other aquifers in the area.

13 And something I did want to underline from
14 the NRC Staff's and the company's responses to our
15 filings was an assertion by the NRC Staff that the
16 direction of groundwater flow is away from the lake at
17 this point, and that seems to be their argument that
18 this is not an issue, that the flow direction is away
19 from the sole source aquifer at Catawba Island.

20 And I just wanted to underline the fact
21 that that is an artificial creation. It is due to
22 core dewatering activities in Monroe County that are
23 extensive and widespread. And this cannot be counted
24 on indefinitely into the future, that the natural
25 direction of groundwater flow at the Fermi site is in

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1 the direction of Lake Erie, and that with loss of
2 institutional control, with the cessation of core
3 dewatering activities, the natural direction of
4 groundwater flow towards Lake Erie, and towards
5 Catawba Island, Ohio, will very likely resume.

6 And that bolsters our point that any
7 radioactivity that is chelate-bound in aquifers will
8 flow towards the lake, which is recognized at various
9 points in the company's and the NRC's own filings,
10 that the lake is a reception pathway from the
11 groundwater of the Fermi site. And we would also
12 assert that, because of the unknowns, that the sole
13 source aquifer at Catawba Island could also be
14 implicated.

15 And a significant historic event that was
16 included in our filing was an overwhelming of the
17 island itself by the lake that caused a contamination
18 incident of E. coli of an infectious microbe in the
19 sole source aquifer in the past. And so that is
20 another reason that we call your attention to
21 radioactive releases into the lake itself, which could
22 find their way downstream, deposit it right onto the
23 islands to then leak down.

24 And I would make one concluding remark and
25 then retain the rest of our time for rebuttal. It has

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1 been compared that radioactivity bound to chelates is
2 like putting rollerskates on the radioactive particles
3 and contamination. It allows it to flow much more
4 quickly with water through the environment.

5 And our concern is for this sole source
6 aquifer at Catawba Island, but also for the lake
7 itself, which is also a source of drinking water for
8 countless millions downstream.

9 JUDGE SPRITZER: Just two questions, one
10 for the Court Reporter's benefit. Could you spell
11 "chelate"?

12 MR. KAMPS: Chelate is spelled C-H-E-L-A-
13 T-E.

14 JUDGE SPRITZER: Okay. And this letter
15 you have given us, is this -- I take it this was not
16 -- I don't remember having seen this before. Is this
17 something that you are submitting to us for the first
18 time --

19 MR. KAMPS: Yes, it is.

20 JUDGE SPRITZER: -- today? All right.
21 Well, we will have to ask the other participants how
22 they feel about us considering something that they
23 haven't had a chance to respond to until now. It is
24 apparently a letter written to the NRC from EPA.

25 All right. Let's move on to hear from Mr.

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1 Repka.

2 JUDGE CHARBENEAU: Let me follow up with
3 a question, an analogy of chelates and rollerskates.
4 The sense that you get is that if a radionuclide
5 happens to become chelated, does it move anywhere
6 faster than the water would move? And would it go
7 different areas?

8 MR. KAMPS: It would move faster than if
9 it were not chelate-bound, and it would --

10 JUDGE CHARBENEAU: No. I asked if it
11 would go faster than the water would move.

12 MR. KAMPS: That I am not sure of, Your
13 Honor. I don't know that it would move faster than
14 the water. My assumption would be that it would move
15 the same speed or close to it.

16 JUDGE CHARBENEAU: Okay. And would it go
17 different locations than the water would move?

18 MR. KAMPS: I have no information that it
19 would.

20 JUDGE CHARBENEAU: Thank you.

21 JUDGE KENNEDY: Do you have anything to
22 offer in terms of supporting information that chelate
23 agents are present onsite or in the water in the basin
24 near the plant?

25 MR. KAMPS: One important indication of

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1 that is the environmental report that the company
2 filed with the NRC admits that its NPDES permit for
3 Fermi 2, which it used as an assumption for what could
4 happen at Fermi 3, allows for 2.5 million pounds of
5 phosphoric acid per year to be used within the
6 facility.

7 So phosphoric acid being a chelating
8 agent, that is one example. But there are others that
9 we included in our filing. EDTA was another example
10 of a chelating agent that was indicated was present on
11 the Fermi site. And that is why I listed in our
12 filings the various organic solvents, decontamination
13 agents, that are in use.

14 And we are concerned, both the NRC Staff
15 and the company seem to indicate that decommissioning
16 activities at Fermi 3 are outside the scope of this
17 proceeding. But we would assert that decommissioning
18 activities at both -- at all three -- Fermi 1,
19 Fermi 2, and Fermi 3 -- are directly relevant to this
20 issue.

21 There is a history within the industry of
22 using chelating agents to decontaminate radioactive
23 items at nuclear plants as an effort to save money on
24 disposal costs. If they can remove the radioactivity
25 layer, then that contaminated item could be disposed

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1 of as a lesser category, lower category of waste, but
2 that indicates that chelating agents that are very
3 powerful will be used on the site and could implicate
4 -- could impact Fermi 3 radioactivity releases.

5 JUDGE KENNEDY: Okay.

6 JUDGE SPRITZER: All right. Mr. Repka,
7 for the Applicant?

8 MR. REPKA: Thank you. A couple of points
9 right at the beginning to respond to some of the
10 things Mr. Kamps has said. First, this contention
11 relates to a very specific analysis of liquid
12 radiological effluent from the rad waste building.
13 And, first, with respect to the use of chelates, the
14 ESBWR design and the Fermi proposal does not involve
15 the use of chelates in liquid rad waste processing.
16 So that is number one. So with respect to the
17 analysis specifically at issue here, there are no
18 chelates involved.

19 Number two, Petitioners talk about
20 phosphoric acid as a chelate, and we just disagree
21 with that, number one, that phosphoric acid is not a
22 chelating agent. And, number two, with respect to the
23 representations about the use of phosphoric acid, that
24 is something that Mr. Smith addressed earlier.

25 That is subject to the NPDES limitations

1 of one ppm. So for use as a corrosion inhibitor, or
2 whatever, it is not really germane to the specific
3 analysis we are talking about in contention 5.

4 JUDGE CHARBENEAU: Would you consider
5 phosphoric acid to be a strong complexing agent?

6 MR. REPKA: I don't think I can answer
7 that question.

8 With respect to use of chelates in
9 decommissioning, I think that is something that, as we
10 did point out in our pleadings, the decommissioning is
11 beyond the scope of the present proceeding.
12 Decommissioning is subject to a specific license
13 termination plan and other NRC planning processes, and
14 I think it would be just grossly speculative to talk
15 about what chelating agents might or might not be used
16 in that context many, many years down the road.

17 So those are three basic points I just
18 want to get out up front. Beyond that, this
19 contention is really focused on a specific
20 radiological, hydrological study that was done for
21 10 CFR Part 100 compliance and standard review plan,
22 SRP Section 2.4.13.

23 And the contention, really, just keys off
24 of one staff RAI which seeks some additional analysis
25 on that point. But I think it is very, very important

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1 to understand the full context, and I will just take
2 a minute again to reiterate some of what we put in our
3 filing.

4 This analysis, it is our position, is not
5 even necessary for Fermi 3, because the ESBWR design
6 assumes a negative result with respect to, if you do
7 this analysis, you would conclude that certain
8 effluence would exceed the effluent concentration
9 limit, the ECL. And as a result, mitigation measures
10 are relied upon that are built into the ESBWR.

11 Now, let me try to explain that in a
12 little more detail. This specific postulated release
13 that is used to analyze the site conditions, it comes
14 from the rad waste building and the liquid rad waste
15 storage tanks that are located outside containment.
16 Under the ESBWR design, they are located in a concrete
17 vault that is lined with a steel liner, and that steel
18 liner is the design mitigating effect.

19 So in the DCD for the ESBWR, the liquid
20 rad waste leak is not even considered to be an
21 accident, because it is mitigated by the design. It
22 simply won't happen.

23 But for this sighting analysis, what is
24 done is an extremely conservative postulated analysis
25 where you simply take a release as a complete

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1 instantaneous release of the rad waste tank with the
2 largest volume, which happens to be the equipment
3 drain collection tank, and you take that source term
4 and put it directly to the groundwater. This is
5 obviously highly conservative, even if you didn't have
6 the ESBWR design.

7 And then, the Staff requested that Detroit
8 Edison do that analysis. And as we described in our
9 filing, the company determined that the rock under the
10 site is not homogeneous but fractured. And given the
11 limited testing experience to realistically monitor
12 the subsurface conditions, what they did is instead of
13 using site-specific data, used some very, very
14 conservative dispersion coefficients and retardation
15 factors, and come to the conclusion that certain
16 radionuclides could exceed the ECL.

17 As a result, the application is relying
18 upon the -- as allowed by the standard review plan, it
19 is relying upon the mitigation measures built into the
20 ESBWR design.

21 So, again, the analysis that was -- the
22 original analysis that was done was highly
23 conservative, and I think what the RAI was looking for
24 is a little bit of a formalistic, "Well, this is what
25 we require in every case, but it is really not

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1 necessary in this case, given the mitigating measures
2 are already built in."

3 But what Detroit Edison has committed to
4 do now is it has identified a testing methodology that
5 can more precisely monitor or measure the -- using the
6 actual subsurface conditions, and we will do that
7 analysis and submit it in September.

8 Now, there is a high likelihood, or at
9 least a possibility, that certain radionuclides in
10 that analysis will still exceed the ECL. So we are
11 right back where we are, which is relying upon the
12 ESBWR design with the built-in mitigation. And, of
13 course, that design issue is beyond the scope of the
14 proceeding, and it is never addressed at all in the
15 petition.

16 So I think what we really have is a
17 contention that is -- we are comparing apples and
18 oranges, or, putting it another way, it is -- perhaps
19 we are pointing in opposite directions going right by
20 each other. But the fact of the matter is the
21 contention really isn't raising a genuine dispute that
22 could lead to some specific relief in this proceeding,
23 other than that which is already built into the
24 design.

25 Let me turn to some of the specific

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1 questions that the Board asked. With respect to, what
2 is the source of the fast-moving plume of radioactive
3 contamination that could threaten the Bass Islands
4 Group sole source aquifer? I am not sure what exactly
5 that is referring to.

6 Certainly, with respect to the analysis
7 that was done previously, the source is the liquid rad
8 waste tank in the rad waste building, with the largest
9 volume -- as I said, you are taking that entire source
10 term of that tank and inserting it instantaneously
11 into the groundwater, a highly conservative and
12 unrealistic postulate, simply for analysis purposes.
13 But that perhaps is what is being referred to here as
14 the source of the radioactive contamination.

15 JUDGE CHARBENEAU: If this was released
16 inside the facility, what would have to happen in
17 order for the release to get outside of the facility?

18 MR. REPKA: A couple of things would have
19 to happen. First, you would have to have a failure of
20 the proposed mitigation, the steel liner and the
21 concrete structure, which is not assumed and does not
22 need to be assumed. But beyond that, you would also
23 have to have some sort of crack that allows the
24 groundwater to come into the tank, because the
25 pressure is -- the pressure flow of the water is into

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1 the facility.

2 So the water -- so nothing can escape
3 until the groundwater actually goes in and fills the
4 volume of the vault and equalizes the pressure, and
5 then you can start to have a flow out. None of that
6 can happen instantaneously the way it is actually
7 modeled in this analysis or it is assumed in the
8 analysis.

9 So to answer your question, you have to
10 have some sort of breach of the containment, and then
11 you have to have the groundwater flow in before it can
12 flow out.

13 JUDGE CHARBENEAU: Is there any
14 information to suggest that the Bass Island aquifer
15 beneath the facility and the Bass Island Group, as a
16 sole source aquifer on the Islands, are part of
17 different hydrogeologic systems?

18 MR. REPKA: No is the answer.

19 JUDGE CHARBENEAU: Okay.

20 JUDGE SPRITZER: As to this letter we have
21 just seen -- and I suspect you may have just seen for
22 the first time -- do you have any position on whether
23 we should consider this? It is not even clear to me
24 -- well --

25 MR. REPKA: Yes. Well, I think I have to

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1 object to this, because I obviously have not had a
2 chance to look at it or consider it, and I think it is
3 -- there have been several opportunities to submit it
4 previously.

5 JUDGE SPRITZER: Very well. Anything
6 further from the Applicant?

7 MR. REPKA: No.

8 JUDGE SPRITZER: The Staff, Ms. Simon?
9 First, can you tell us what your position is on this
10 letter, before we move on to --

11 MS. SIMON: I think we would have the same
12 position as the Applicant.

13 JUDGE SPRITZER: Okay. Very well. All
14 right.

15 MS. SIMON: Thank you, Your Honor.

16 JUDGE SPRITZER: The contention, as it was
17 previously framed.

18 MS. SIMON: Well, as we stated in our
19 answer, the Staff's position is that the portion of
20 this contention alleging the omission of certain
21 onsite measurements is admissible as a contention of
22 omission, with the remainder being inadmissible, as we
23 discussed, for lack of adequate support and lack of
24 raising a genuine dispute.

25 With regard to the Petitioners' reply, the

1 Petitioners have added additional support for the
2 assertions regarding interconnection and possible
3 contamination of aquifers and for the effects of
4 chelating agents. Much of this additional material
5 consists of citations from the environmental report as
6 well as some external documents that were not provided
7 originally.

8 As you may recall, the original petition
9 relied almost exclusively on RAIs and RAI responses as
10 support. So as set forth in the Commission's decision
11 in Palisades, technically the submission of all of
12 these additional documents in a reply is not allowed.
13 It is outside the scope of a permissible reply. In
14 that decision, the Commission said you cannot add new
15 bases for a contention in the reply, nor can you add
16 additional documentary support if the documentary
17 support provided initially was inadequate.

18 Furthermore, the Petitioners have really
19 not explained how these documents --

20 JUDGE SPRITZER: Since you haven't given
21 -- I don't think you have turned over --

22 MS. SIMON: Oh, the citation. I'm sorry.

23 JUDGE SPRITZER: Yes.

24 MS. SIMON: CLI0617, and that is 63 NRC
25 727 at page 732.

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1 JUDGE SPRITZER: All right. Go ahead.

2 MS. SIMON: The Petitioners have not
3 really explained how these documents apply
4 specifically to Fermi 3 in their contention. For
5 instance, the paper on microbial contaminants that
6 were mentioned, that actually has to do with the South
7 Bass Island, which is not Catawba Island, it is a
8 distinct separate island, and so that is really not
9 relevant.

10 And the paper -- the K Dry paper on
11 decontamination was based on a demonstration project
12 from the Dresden unit done in the early '80s. So,
13 again, we don't feel that the reply has added
14 sufficient support or raised a genuine dispute.

15 The Petitioners have cited a number of
16 sections of the environmental report, but they really
17 haven't raised a dispute with them. They have
18 actually used them as support for their contention.

19 JUDGE SPRITZER: Well, what about Mr. --
20 if I could maybe somewhat oversimplify Mr. Repka's
21 response, but it seemed to be essentially that the
22 analysis that was done, that the Petitioners were
23 referring to, was in effect a kind of red herring, and
24 they had covered the problem the Petitioners are
25 concerned with in the design of the facility, which we

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1 can't really get into in this contention.

2 MS. SIMON: Well --

3 JUDGE SPRITZER: I take it there is some
4 -- you may have some disagreement with that, if you --

5 MS. SIMON: Yes. Well, I can --

6 JUDGE SPRITZER: -- some part of the
7 contention is admissible.

8 MS. SIMON: I can explain it. In the
9 Staff's standard review plan, in NUREG-0800, in
10 Section 2.4.13 where this analysis is discussed, there
11 are two ways that the Staff can make an acceptable
12 finding. The first is to review the calculations and
13 find that they -- that there were no instances where
14 the Part 20 regulations regarding effluence were
15 exceeded.

16 The other way, as Mr. Repka alluded to, is
17 that if special design features are incorporated to
18 mitigate the possibility of an accident, then the
19 Staff can make a finding that those provisions are
20 acceptable to mitigate the failure. But, at this
21 point, the Staff has not completed its analysis, and
22 we really feel that that goes to the merits.

23 We feel that based on the legal basis for
24 a contention of omission that a contention of omission
25 has been stated.

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1 JUDGE SPRITZER: This seems to get into
2 the -- this rather difficult, sometimes difficult
3 question of what exactly is covered in the design
4 certification and what isn't. If a design is in fact
5 certified, will it -- it sounds like the issue you are
6 getting at is one that is more site-specific than --
7 that would be covered in the design rulemaking. But
8 maybe I am wrong about that. That is, whether the
9 design here is adequate to address the possible
10 offsite migration, hydrologic deficiency issue.

11 MS. SIMON: Well, once the design is
12 certified, then perhaps the --

13 JUDGE SPRITZER: Would it be certified to
14 in effect say, "This design is sufficient to prevent
15 offsite migration at any site, regardless of its
16 geology"?

17 MS. SIMON: I am not certain. I believe
18 that would be the case, but I am not completely sure.

19 With regard to the Board's question
20 regarding the fast-moving plume, the Staff was not
21 aware of any fast-moving plume. And with respect to
22 the Petitioners' discussion, it seems clear that what
23 they are referring to is the possible plume that could
24 result from possible spills and leaks and possible
25 combinations with chelating agents. I think we have

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1 discussed that sufficiently in our answer.

2 JUDGE CHARBENEAU: Just one quick
3 question. The parts that were missing from the
4 application were measurements of absorption and
5 retention coefficients under 10 CFR 120(c)(3)?

6 MS. SIMON: Yes.

7 JUDGE CHARBENEAU: What significance would
8 any new data that would come back from measurements
9 have on anything that we are discussing right now?

10 MS. SIMON: Well, as Mr. Repka stated,
11 there is a -- an analysis is done using those
12 parameters. And, by the way, porosity was also a
13 measurement that --

14 JUDGE CHARBENEAU: But I don't think that
15 is in the regulations. That is fine.

16 MS. SIMON: Well, it says "such as." It
17 is not --

18 JUDGE CHARBENEAU: Yes.

19 MS. SIMON: It is not limited. But in any
20 case, so that when those -- as Mr. Repka stated, the
21 Applicant used conservative values and --

22 JUDGE CHARBENEAU: Basically, no retention
23 is what they used.

24 MS. SIMON: Right.

25 JUDGE CHARBENEAU: So there is no --

1 MS. SIMON: So I guess, yes --

2 JUDGE CHARBENEAU: Is there any potential
3 adverse impacts from any measurements that could be
4 presented?

5 MS. SIMON: If they assume no retention at
6 all, then I guess there isn't.

7 JUDGE CHARBENEAU: Okay.

8 JUDGE SPRITZER: All right. Is there
9 anything further from the Staff on this contention?

10 MS. CARPENTIER: No, Your Honor.

11 JUDGE SPRITZER: Petitioners, you can have
12 five minutes for reply on this.

13 MR. KAMPS: Thank you, Your Honor. One
14 point that we wanted to emphasize is that we obtained
15 this information on the public record on March 6th,
16 and our deadline for filing this contention was
17 March 9th. And so we did our best in the three days
18 that we had to file as much information as possible.

19 And when we were challenged by both the
20 NRC Staff and the Applicant, we included more
21 information that we hoped would answer their questions
22 on our April 10th filing.

23 Again, the data will not be provided by
24 the company until September 9th. So we don't see the
25 rush to reject this contention outright as we seem to

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1 be hearing here.

2 I just wanted to emphasize that during the
3 construction of Fermi 3 that the very quarrying
4 activity of digging that foundation will affect the
5 hydrological flows at the site. And there are
6 interrelationships between quarrying activities not
7 only at the Fermi site but throughout Monroe County
8 that are influencing the hydrological flows. And so
9 that needs to be kept in mind.

10 I wanted to just --

11 JUDGE KENNEDY: Would that have a
12 permanent affect or just during construction? I mean,
13 are you raising a concern that the hydrology that was
14 described on the potential release path would no
15 longer be accurate?

16 MR. KAMPS: Well, the most significant
17 change will be when institutional control is lost at
18 some point in the perhaps distant future, and any
19 radioactive contamination of the Fermi site bound to
20 chelates could then be carried into groundwater that
21 would then flow towards the lake.

22 And so the drinking water supply of Lake
23 Erie itself in intercommunication with the sole source
24 aquifer would then be more at risk than during
25 institutional control, because the flow towards the

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1 quarries, as is indicated, is away from the lake in
2 the present. But our concern, as we indicated in our
3 initial filing, is not near-term only concerns. It is
4 also very long-term concerns, because the half-lives
5 of these radioactive contaminants are very long. They
6 have very long hazardous persistence.

7 JUDGE KENNEDY: Is this a residual amount
8 of radiation that is left over after decommissioning,
9 or -- I am not sure I am understanding, a) the
10 timeframe you are speaking to, and b) the source of --

11 MR. KAMPS: Well, I didn't -- we didn't
12 focus only on the hypothetical that the company
13 raised. We were concerned about the entire site.
14 And, for instance, one recent incident at Fermi 1
15 during the decommissioning in 2007, the release, I
16 mentioned it in the filings, thousands of gallons of
17 radioactively contaminated water, including tritium
18 that was spilled at the Fermi 1 site, these are the
19 kinds of radioactive leaks and spills, and even
20 routine discharges, because there is permission from
21 the Nuclear Regulatory Commission for ongoing routine
22 releases into the air, which can then fall out through
23 radioactive decay into biologically active isotopes
24 like cesium and strontium, and also liquid discharges.

25 So these are our concerns, that especially

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1 when bound with chelates that that accelerates their
2 flow.

3 JUDGE SPRITZER: Okay. Anything further?

4 MR. KAMPS: Just a couple more points.

5 JUDGE SPRITZER: Okay.

6 MR. KAMPS: The significance of this issue
7 is that the company admits that one of the effluent
8 concentration limits would be exceeded 5,000-fold. So
9 we are very concerned about that. They mentioned a
10 dozen radionuclides would violate ECLs all together.

11 Regarding projecting the EPA letter, it is
12 a part of the EIS proceeding that our various parties
13 were involved with. This was filed as part of the
14 February 9th deadline for environmental scoping. So
15 it was available to the NRC staff directly, and the
16 company by being involved in that proceeding as well.

17 And I wanted to mention that, you know,
18 taking credit for a steel liner on concrete, we have
19 seen recent examples of the failure of steel liners at
20 Beaver Valley, Pennsylvania, with the reactor
21 containment itself, and, similarly, at Oyster Creek,
22 New Jersey, a corrosion of the radiological
23 containment barrier.

24 These are -- in that particular
25 hypothetical, we are concerned about leakage from that

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1 particular system. But our concern is more extensive
2 than that, to the whole site.

3 And my final point is just that, again,
4 the reason that we raised these documents from 1980,
5 the letter from K Dry who is on the board of Beyond
6 Nuclear, to the Nuclear Regulatory Commission, as well
7 as the Science article from the same timeframe, these
8 were concerns that were raised to the NRC decades ago,
9 and that we still feel are inadequately addressed,
10 even in the present day, as we have seen,
11 unfortunately, in this proceeding. and we raise this
12 documentation as a response to NRC's challenges to our
13 contention.

14 JUDGE SPRITZER: All right. Anything
15 further from the Petitioners on this?

16 MR. KAMPS: No, Your Honor.

17 JUDGE SPRITZER: Okay. This appears to be
18 a convenient time to take a one-hour break for lunch.
19 It is now approximately 12:10. We will come back at
20 10 minutes after 1:00.

21 (Whereupon, at 12:10 p.m., the
22 proceedings in the foregoing matter
23 recessed for lunch until 1:12 p.m.)

24 JUDGE SPRITZER: All right. Let's go back
25 on the record. It appears the microphones are on. I

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1 guess we're ready to go. We'll move onto Contention
2 7. Contention 7 alleges "routine operations of Fermi
3 3 will endanger workers and the public with
4 radionuclide emissions." And we'll begin with the
5 Petitions, Mr. Kamps again I believe.

6 MR. KAMPS: Thank you, Your Honor.

7 JUDGE SPRITZER: Just a minute. There is
8 one question we did talk about over lunch that goes
9 back to something we discussed, one of the contentions
10 we've already covered, mainly Contention 1 and we had
11 a question for the Applicant. Since I'm springing
12 this on you if you want to postpone your answers until
13 later that's fine. From the questions, essentially
14 it's where in the environmental report the interaction
15 between any thermal plume from Fermi 3 and the plume
16 that's been alleged to result from the existing coal-
17 fired plant in Monroe where, if anywhere, is that
18 covered in the environmental report?

19 MR. SMITH: I have that information and
20 we'll get back to you on that later this afternoon.

21 JUDGE SPRITZER: Okay. Feel free to bring
22 that up whenever you're ready.

23 All right. Let's go to Contention 7 and,
24 Mr. Kamps, you may proceed on that.

25 MR. KAMPS: Thank you. The first major

1 point that we'd like to make concerns NRC statement
2 that coal-fired power plants in Monroe County are not
3 licensed by NRC and the coal plant's activities are
4 not part of the application currently under
5 consideration. For us this raises doubts as to how
6 seriously the NRC is taking its NIPAA obligation to
7 analyze cumulative radiological impacts.

8 The point that we're trying to make is
9 that this area on the western basin of Lake Erie and
10 Lake Erie as a whole has significant radiological
11 emissions coming from the coal-burning power plants.
12 So right here in Monroe we've got three coal-fired
13 power plants. There's the Trenton Coal Plant.
14 There's DTE's own Monroe Coal Power Plant which at
15 3,300 megawatts electric is one of the largest in
16 North America. We also have Consumers Energy's
17 Whiting Coal Plant.

18 Not too far down the shoreline is the Bay
19 Shore Coal Plant in Toledo and then on Lake Erie's
20 northern shore in Ontario is the Nanticoke Coal Power
21 Plant which at 4,000 megawatts electric reportedly is
22 the largest coal burner in all of North America.

23 And so our point is that the radiological
24 emissions as we're so often reminded by the industry
25 are significant and their point in reminding us of

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1 that is they're trying to say that the radiological
2 emissions from the nuclear power plants by comparison
3 are insignificant. But we would like to see that the
4 radiological emissions from the coal burners are
5 addressed in this proceeding by the NRC.

6 JUDGE SPRITZER: Especially another
7 cumulative impact type argument.

8 MR. KAMPS: Yes.

9 JUDGE SPRITZER: We need to address not
10 only the individual impact of Fermi 3 but the
11 cumulative impact of the existing coal-fired plants
12 and Fermi 3 when it goes into operation. Okay.

13 MR. KAMPS: Yes.

14 JUDGE SPRITZER: Now in this contention,
15 are you taking issue with the limits that the NRC sets
16 on exposure, human exposure, to radionuclides, to
17 radioactivity or are you --

18 MR. KAMPS: No. Really our main concern
19 is that the modeling by both the company and by the
20 NRC especially regarding the change from Design
21 Control Document 4 to 5 is inadequate because they've
22 gone from a single vent release pathway for
23 radioactive gases to now three and our point is that
24 introducing multiple radiological gas vents and
25 release points, one from the reactor building, one

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1 from the fuel building and one from the rad waste
2 building, would put those releases in closer proximity
3 to various subpopulations of the Fermi 3 workforce
4 over time as well as to certain subpopulations of area
5 residents and from the best of our reading of the
6 application thus far this has not been adequately
7 modeled to determine that the release is now coming
8 from multiple points are now impacting subpopulations
9 more than previously considered.

10 JUDGE SPRITZER: Is it your understanding
11 that the modeling that's in the application was based
12 on one stack and that they subsequently switched to a
13 three stack design or?

14 MR. KAMPS: That and that there seems to
15 be omitted information about the heights of the vents,
16 wind patterns in the exact area, the proximity to the
17 various worksites at Fermi 3. Another concern we have
18 is that the issue of radioactive particle fallout is
19 neglected and possible hot spots.

20 The way that the Applicant and the NRC
21 staff seem to address this issue is to assume that any
22 noble gases released from the operations of Fermi 2
23 simply blow away on the wind, but in fact they have
24 very, relatively short half-lives So that noble gases
25 such as xenon and krypton will change into

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1 biologically significant solids such as cesium and
2 strontium that can fall out on the lake, fall out on
3 the soil and have impacts on the workforce or area
4 residents.

5 Another point that I wanted to make is
6 something that Detroit Edison put in its response that
7 was very perplexing to us. They seem to be indicating
8 that a 50 fold increase in radioactivity dosage to a
9 person would have no impact on the health damage
10 caused by that radiation. This was one they were
11 pointing out that a worker dose up to 5 rems permitted
12 per year would have no health impact different than a
13 member of the general public who has a limit of 100
14 millirem per year. So we just don't understand their
15 point because it seems to fly in the face of the
16 linear no threshold theory which a lot of our
17 arguments are based on the biological effects of
18 Ionizing Radiation Report, the seventh iteration from
19 the National Academy of Sciences.

20 And I'll just conclude that there is
21 evidence. We've cited a couple reports that appeared
22 in, for example, *The European Journal of Cancer Care*,
23 that there are increases in radioactivity associated
24 with nuclear power plants and specifically some of
25 this data has been presented in our filings by Drs.

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1 Janette Sherman and Joe Mangano on increasing in
2 cancer rates around the Fermi Nuclear Power Plant and
3 we feel that one of the issues that was not addressed
4 by the NRC staff or the Applicant is local residents
5 who also work at Fermi 3 as construction workers.
6 That seems not to have been addressed in their
7 application.

8 JUDGE SPRITZER: Do any of the members of
9 the organizations that are Petitioners, are any of
10 their members workers at that plant? Let me limit it
11 to those who've actually filed affidavits. It's kind
12 of hard to know who the others are. I don't recall
13 seeing anybody who appeared to be an employee at the
14 plant.

15 MR. KAMPS: Not to the best of our
16 knowledge, no. It's possible since our organizations
17 have thousands of members that there may be and
18 certainly because Fermi has not hired workers yet for
19 Fermi 3 we don't know. That's a part of the confusion
20 of this proceeding that it seems to be so rushed and
21 we've asked multiple times for delays so that we could
22 better take part and address these concerns and that's
23 a real example of that.

24 JUDGE SPRITZER: Okay. All right. Do you
25 want to reserve the rest of your time for rebuttal?

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1 MR. KAMPS: Yes please.

2 JUDGE SPRITZER: Mr. Repka.

3 MR. REPKA: Yes. Thank you.

4 Let me start by addressing a couple of the
5 specific points that Mr. Kamps just raised and then
6 I want to come back to the issue of the three vent
7 versus one vent. First, Mr. Kamps is talking again
8 about the coal-fired stations in the area and whether
9 or not those have to be included in a cumulative
10 impacts analysis.

11 I think two things. One is we agree
12 certainly with the NRC staff that any releases from
13 the coal facilities are beyond the NRC's jurisdiction
14 and not something the NRC could issue any relief
15 surrounding. But number two and more fundamentally
16 if this is now styled as a cumulative effects
17 environmental report, environmental impact statement,
18 type issue I don't think there has been any evidence
19 or technical support presented that would justify a
20 contention that would say that there would be such
21 effects. I think it's entirely conjectural. So it
22 doesn't meet the admissibility criteria.

23 Second, Mr. Kamps said they find
24 perplexing the statements about the occupational dose
25 being 50 times, I believe, is what he said, the public

1 dose limits. My response to that is quite simply that
2 the regulations are what they are and they're not
3 subject to challenge in this proceeding. The fact of
4 the matter is occupational doses are subject to
5 different limits than the public doses in the various
6 analysis and certainly there is not basis to assume
7 that those doses at the regulatory limit will cause
8 any health effects and to the extent that this would
9 be an argument that those dose limits are inadequate
10 to protect the health and safety of workers that's a
11 challenge to the regulations that's beyond the scope
12 of the proceeding here. And I think certainly with
13 respect to any health studies by Dr. Mangano or
14 anybody else those are really the kind of issues that
15 would be more appropriate for a rulemaking petition
16 than they are in a site specific licensing proceeding.

17 The third thing is Mr. Kamps mentioned,
18 said, that we haven't demonstrated construction worker
19 doses and effects. And, in fact, we have and that's
20 addressed in the environmental report. I know we
21 cited the specific section in our papers, but just for
22 completeness that is addressed in ER Section 4.5. The
23 occupational doses of construction workers at Fermi 3
24 would be completely controlled by operation of Fermi
25 2 because obviously Fermi 3 wouldn't be operating at

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1 that point and those doses are set out in the ER.

2 Now with respect to occupational doses at
3 Fermi 3, again the dose limits are what they are in
4 the regulations. But I should say that not only are
5 workers at the site if they're working in a
6 radiological controlled area they do wear dosimetry or
7 TLDs or some form of occupational exposure detection.
8 But more fundamentally, doses are monitored by
9 continuous air monitoring equipment. So there is a
10 means to detect if there's some release that
11 challenges regulatory standards and could cause an
12 effect. Obviously, that's not going to go undetected.

13 Now I want to return back to the three
14 stack versus one stack design change because I think
15 that really was the initial focus of this contention
16 and as we tried to explain in our reply that's a case
17 where the COLA, the COL application, is really
18 tracking a change in the DCD initiated by the vendor.

19 The original, well, not the original, but
20 DCD Rev 4 assumed that the rad waste building, turbine
21 building and reactor building HVAC systems all vented
22 to one vent path and in the modified ESBWR design, DCD
23 Rev 5, there will be individual vent locations at each
24 of the rad waste building, the turbine building and
25 the reactor building. Presumably that's a change made

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1 to simplify the duct work. But regardless, it is
2 analyzed by the vendor in the context of the DCD
3 change at least to the point of the source terms in
4 the stack.

5 And then in the COLA, Detroit Edison has
6 done the analysis to address the site specific
7 dispersion using site specific meteorologic data, site
8 specific receptors, to do the offsite dose
9 calculations to show that the change doesn't result in
10 any of the effluence exceeding regulatory limits.

11 Just, the Board asked a broad question and
12 said be prepared to discuss that analysis and probably
13 I'm not the right guy to discuss it in detail but a
14 couple of things to point out about that analysis in
15 the COLA. And again this was presented as a
16 justification for a departure in the original COLA.
17 But now in COLA Rev 1 that now references DCD Rev 5,
18 it's not longer a departure. It's now conforming to
19 the latest DCD.

20 But be that as it may, the FSAR Section
21 12.2.2.2 presents the offsite dose calculations that
22 were using the GASPAR, G-A-S-P-A-R, 2 Code and the
23 impacts are presented in FSAR Table 12.2-18aR I
24 believe where it's a small a, capital R. The source
25 terms were taken from the DCD Rev 5, Table 12.2-16 and

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1 that also presents details on how those sources terms
2 were derived. The atmospheric dispersion factors or
3 known as the chi over q and the deposition factors,
4 the delta over q, are site specific and taken from
5 FSAR Section 2.3 of the COLA and the receptor
6 locations as I mentioned are all site specific.

7 So again the results are then presented in
8 FSAR Table 12.2-18bR and all of the results are within
9 applicable regulatory limits as set forth in 10 CFR
10 Part 50, Appendix I, Section 2.B and II.C. So with
11 respect to that particular analysis and the vent
12 design, the three vents versus one vent, what the
13 contention is really presenting is again a lot of
14 conjecture but no specific recognition of the analysis
15 that's presented or any basis to challenge that
16 analysis.

17 And then finally, I would just like to
18 again go back to the issue of the three vents versus
19 one vent and Mr. Kamps is talking about the
20 possibility of hot spots and subpopulations and things
21 like that. Again, the deposition factors are
22 presented in the table. But perhaps more importantly
23 the stacks are continuously monitored. So there is
24 air sampling equipment and other onsite equipment to
25 determine whether or not there is any specific reason

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1 for concern. But in reality these effluence are going
2 to be far below regulatory limits.

3 The last point I'll make is again in this
4 contention there was some discussion in the original
5 contention thrown in about liquid effluence that was
6 reminiscent of the analysis we talked about under
7 Contention 5. Contention 7 is not really about liquid
8 effluence. Contention 7 is about the air affluence.
9 So I think that's a little bit of a confusion thrown
10 in and that shouldn't be addressed as part of
11 Contention 7.

12 And lastly I'll just reiterate again with
13 respect to occupational doses the Petitioners have
14 never stated that they represent any particular
15 workers at the site and therefore are not, don't have
16 standing or legal authority to represent the interests
17 of workers at the stations.

18 JUDGE KENNEDY: Just a -- So from your
19 explanation, there is a new analysis with the three
20 vent configuration taking into consideration site
21 specific, environmental conditions and the stack
22 heights and those results are in the tables you
23 quoted. I guess 18b-R, 12.2.18 --

24 MR. REPKA: Yes.

25 JUDGE KENNEDY: And those results are

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1 significantly below regulatory requirements.

2 MR. REPKA: Yes and, yes, significantly.
3 My team is agreeing that significantly is an
4 appropriate adjective.

5 JUDGE KENNEDY: Probably should have said
6 I was quoting you.

7 JUDGE SPRITZER: Is that part of the
8 revision to the application.

9 JUDGE KENNEDY: I think he said it was in
10 the original.

11 MR. REPKA: It was included in the
12 original application as part of the departures
13 analysis.

14 JUDGE SPRITZER: Was that available when
15 the petition was filed?

16 MR. REPKA: Yes, it was.

17 (Off the record comments.)

18 JUDGE SPRITZER: All right. NRC staff.

19 MS. CARPENTER: Thank you. I'd like to
20 begin by saying that there are some changes in the
21 contention between when it was originally filed and
22 the reply. There is one that I would like to clarify
23 for the record, a new argument that first appeared in
24 the reply and that we have not yet addressed in our
25 written filings.

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1 The Petitioners object to the use of TLDs
2 to project worker doses saying that this does not take
3 internal doses into account. However, they are
4 ignoring information in the ER. The Petitioners
5 themselves included in their initial submission of
6 this contention.

7 JUDGE SPRITZER: Excuse me.

8 MS. CARPENTER: Sorry.

9 JUDGE SPRITZER: What is a TLD?

10 MS. CARPENTER: TLD, Thermal Luminescent
11 Dosimeter.

12 JUDGE SPRITZER: All right.

13 MS. CARPENTER: It's the sort of thing
14 you would wear on your lab coat if you were a
15 radiation worker.

16 JUDGE SPRITZER: Okay.

17 MS. CARPENTER: The contentions that the
18 Petitioner originally filed quoted some sections of
19 the ER that bear on this issue and that show that the
20 internal doses were not calculated based on the
21 thermal luminescent dosimeters but rather based on the
22 historical releases from the Fermi 2 facility in the
23 years from 1999 to 2006 and actually they used the
24 year 2001 because that was the highest and give the
25 most conservative estimate.

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1 The ER pages that are relevant here are
2 pages 4-98 to 4-99 and the pages of the Petitioner's
3 filing where this is first incorporated are pages 82
4 and 83. So that aspect of the contention changed
5 somewhere along the way and I wanted to make sure that
6 that was made clear.

7 At the end, the contention still ends up
8 being about the dispense between worker doses at 5 rem
9 for radiation workers and 100 millirem for members of
10 the general population. This is discussed in the ER
11 in the context of how to categorize construction
12 workers at Fermi 3, whether they needed to be treated
13 as radiation workers or whether they can be treated as
14 members of the general public. And in no case has
15 anyone argued that any regulatory limits would be
16 exceeded and it's just a question of how to categorize
17 them and it appears that the Petitioners have not
18 really challenged that categorization in their
19 contention.

20 Regarding the coal plants, the Petitioners
21 requested some specific relief in terms of monitoring
22 at the coal plants. That is not something the NRC has
23 the authority to impose. Another agency regulates
24 coal plants. I used to work at that agency.

25 JUDGE SPRITZER: EPA.

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1 MS. CARPENTER: Yes, and so that
2 particular form of relief is not something that we can
3 provide.

4 JUDGE SPRITZER: What about their argument
5 that the cumulative impact of coal plant,
6 radionuclides, and thereby coal plants and those that
7 will be emitted by from Fermi 3 when it goes into
8 operation? That has to be analyzed somewhere.

9 MS. CARPENTER: Anything that is
10 detectable on the Fermi 3 site will be picked up in
11 baseline measurements and would be considered that
12 way.

13 JUDGE SPRITZER: All right. Anything else
14 from the staff on Contention 7?

15 MS. CARPENTER: Do you have any questions?

16 JUDGE SPRITZER: No more questions. All
17 right. Petitioners can have five minutes for reply on
18 that contention.

19 MR. KAMPS: Thank you. Well, the citation
20 from the Detroit Edison response reads "alternatively
21 all workers could be treated as radiation workers with
22 individual monitoring. As radiation workers, they
23 would be subject to much higher regulatory dose limits
24 and equivalently safe." And that's a part of our
25 confusion with this is this is 50 fold change in dose

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1 limits.

2 So Detroit Edison's counsel just said that
3 workers at Fermi 3's exposure to radiation would be
4 far below regulatory limits. But we need to know
5 which limit we're talking about. At this point,
6 they're being treated as members of the general public
7 and our concern, too, is that what was stated here is
8 that as members of the general public they will not be
9 given radiation dose badges. But the only alternative
10 seems to be to up the permissible dose allowed to
11 them.

12 I guess what I'm saying is in order to get
13 a radiation dose badge you need to be subject to a 50
14 fold increase in the radiation dose to get that. So
15 our point would be that the cost of radiation dose
16 badges as an extra measure of protection would be
17 minimal for workers at Fermi 3.

18 Another point I wanted to make is that the
19 monitoring network that they describe of these thermal
20 luminescent dosimeters is very limited in number.
21 There are only a few. There are only several of these
22 TLDs and they were put in place with Fermi 2 in mind.
23 For instance, there was one put near the visitors
24 center, a Fermi 2. So now that there's going to be a
25 Fermi 3 worksite, again the cost of putting in much

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1 better radiation monitoring to protect the workers at
2 Fermi 3 would seem to be very reasonable.

3 And I wanted to clarify that there seem to
4 be -- there was an argument just now by the Company
5 that really the waterborne radioactivity exposures of
6 the workers at Fermi 3 should not be considered in
7 this contention. But we would state that that's at
8 the heart of this contention is our concerns about not
9 only airborne exposures by the workers but also the
10 waterborne exposures to the workers at Fermi 3.

11 JUDGE CHARBENEAU: What would be the
12 source of the waterborne exposure to workers?

13 MR. KAMPS: It would be routine radiation
14 releases from the Fermi 2 operations as well as any
15 leaks or spills that have happened over time at Fermi
16 1 or Fermi 2 and an example of that again is the
17 fallout of noble gases released, radioactive noble
18 gases, which decay into radioactive particles that are
19 biologically active.

20 JUDGE SPRITZER: Do you all have anything
21 further on that, on this contention, Contention No. 7?

22 MR. KAMPS: No.

23 JUDGE KENNEDY: I think I'm getting --
24 Between the Applicant and the Petitioner, I'm a little
25 confused as to what -- You brought up the issue again

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1 of dosimetry on the, I guess, Fermi 3 workers. Take
2 us back to what the original issue is here. I mean
3 help me walk through what's at the heart of this
4 contention.

5 We've been back and forth on regulatory
6 limits. The Applicant rightfully I guess has stated
7 that whether it's a worker, radiation worker, or a
8 member of the public the resummation is that the doses
9 are within the regulatory limits. But I still see --
10 I'm sensing that there's something that we're not
11 getting to here and I'm not getting it in your
12 rebuttal.

13 So maybe take a minute and help me get to
14 the nub of this issue. I mean what are we really
15 challenging here?

16 MR. KAMPS: Well, our concern at heart is
17 a concern that the workforce at Fermi 3 is being
18 treated as members of the general public when they are
19 surrounded by historic radioactive contamination from
20 four decades of atomic activities at this site and
21 that the monitoring that's in place was put in place
22 for specific purposes at Fermi 2 not necessarily at
23 all to protect the health of a workforce at Fermi 3.

24 JUDGE KENNEDY: And maybe that is what's
25 confusing me because I thought we just heard that the

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1 regulatory limits for members of the public are more
2 restrictive than regulatory limits for radiation
3 workers. So when you turn this back around I keep
4 getting confused.

5 I think if they're treated as members of
6 the public it seems like it's a more restrictive
7 standard for the workers at Fermi 3. The Applicant is
8 stating that they're under the control of Fermi 2, I
9 don't know what the right word is, radiation control
10 measures. They're being treated as members of the
11 public. So the standards are more restrictive and so
12 now I get to that point and I think I get it. But I
13 still think there's something that you're trying to
14 raise here that I'm missing. There's a gap.

15 MR. KAMPS: Okay. We certainly don't want
16 the allowable doses to the Fermi workforce to be
17 increased 50 fold. We certainly don't want that
18 because based on the NAS Bureau 7 Report and the
19 linear no threshold model of radiation health damage
20 that in our opinion that would cause worse health
21 damage to the workforce and that's why we're confused
22 by the Company saying that the two dose limits,
23 general public and workforce, nuclear workforce, are
24 equivalently safe. We don't agree with that
25 statement.

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1 JUDGE KENNEDY: So if we went back to
2 treating the Fermi 3 workforce as members of the
3 public does that address your concern?

4 MR. KAMPS: Well, we think that the
5 workforce should be protected as much as possible
6 against the radioactive hazards at the site and a part
7 of our concern is that the TLDs that are in place that
8 are relied upon by the Company and the NRC to protect
9 the workforce to make sure their exposures don't
10 exceed regulations were not designed originally to
11 protect a Fermi 3 workforce. They were designed for
12 other purposes at Fermi 2 and we think that
13 significant improvements to the radiological
14 monitoring at this site could be implemented.

15 JUDGE KENNEDY: Maybe if we could get the
16 Applicant to address if there are other measures to
17 protect members, I guess, of the public and I guess
18 these are releases from Fermi 2 then. Right? This
19 would be Fermi 2 releases.

20 MR. KAMPS: And historic Fermi 1
21 contamination for that matter.

22 MR. REPKA: Okay. I think what you have
23 at existing Fermi 2 is radiological environmental
24 monitoring program that has several components, one of
25 which is the effluent monitoring as it goes out the

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1 stack or the wherever, in fact, the release point. So
2 that's number one. That would be your primary way of
3 knowing that you're in compliance with regulations for
4 discharges.

5 Then the second thing, Mr. Kamps keeps
6 mentioning the TLDs. The TLDs are used as part of the
7 existing environmental monitoring program as
8 confirmation that there's nothing else out there that
9 should be detected that hasn't been detected at the
10 release point. So those are the TLDs that are used at
11 specific points around the site for the sake of
12 monitoring Fermi 2 which is not to be confused with
13 the TLDs that radiological control area workers would
14 be wearing.

15 So I think that's the environmental
16 monitoring program and that's relied upon as part of
17 determining the environmental baseline for
18 environmental report purposes. But again the releases
19 would be as calculated subject to the confirmation by
20 the monitoring program and whether you categorize the
21 Fermi 3 construction workers as public or occupational
22 radiation workers, they're going to be protected.

23 JUDGE KENNEDY: Today, they're
24 characterized as members of the public. Is that a
25 fair way to?

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1 MR. REPKA: I think for sake of analysis
2 that's correct. I mean there are no workers today.

3 JUDGE KENNEDY: I understand. Okay.

4 MR. REPKA: But it could be done either
5 way.

6 JUDGE CHARBENEAU: For the environmental
7 baseline monitoring of radiation, is that what the
8 TLDs are?

9 MR. REPKA: I mean that's not their
10 initial purpose. They are to support Fermi 2
11 operation monitoring, but they are used for that.
12 They are used for that purpose.

13 JUDGE CHARBENEAU: So they in a sense are
14 doing the cumulative impacts of the coal plants as
15 well.

16 MR. REPKA: I think that's probably true.

17 JUDGE CHARBENEAU: Thank you.

18 MR. KAMPS: Could I just make one last
19 point on this that the counsel for Detroit Edison just
20 admitted that there are no workers today and that just
21 raises the whole question of standing again that we're
22 being attacked on standing when this workforce has yet
23 to exist and a number of the parties that have joined
24 in our environmental coalition include such as Sierra
25 Club, one of the largest and most active environmental

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1 organizations in the state, as well as other southeast
2 Michigan environmental groups. So there is the
3 distinction possibility that certain members of the
4 Fermi 3 workforce would be members of our various
5 coalition members.

6 JUDGE SPRITZER: Well, that's an
7 interesting point. I don't know how we can determine
8 who will be members of your organizations but it could
9 be many years from now.

10 MR. KAMPS: Well, it gets to the heart of
11 this rushed proceeding in our view that we've asked
12 many times for postponement of deadlines.

13 JUDGE SPRITZER: We, of course, can't --
14 To a large extent, that's out of our hands and in any
15 event we couldn't put it off until we know what the
16 Fermi 3 workforce is. The horse would be out of the
17 barn by that point. But we understand your position
18 on that and it's an interesting point.

19 All right. If we don't have anything
20 further on Contention 7, let's move on to Contention
21 8. From the standpoint of those of us that are not
22 nuclear engineers, this is a bit more straightforward.
23 It alleges that threatened and endangered species on
24 the site have not been properly mitigated and, in
25 particular, the Petitioners have attached or referred

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1 to an email that they apparently received from a
2 wildlife biologist from the Michigan Department of
3 Natural Resources indicating that "according to our
4 records there's a viable population of Eastern fox
5 snake at the site of the proposed project. We believe
6 that going forward with the construction," that is the
7 construction of Fermi 3, "would not only kill snakes
8 but destroy the habitat in which they live and
9 possibly exterminate the species from the area."

10 I take it the substance of this
11 contention, at least, as it concerns the snake is
12 that this hasn't been adequately analyzed in the
13 environmental report. So let us hear from the
14 Petitioners first on this contention.

15 MR. KEEGAN: Hello. I would like to offer
16 some exhibits which were included in my record. Just
17 I want to provide them for you for clarity. Every one
18 is already in the record.

19 JUDGE SPRITZER: All right.

20 MR. KEEGAN: In addition, there was a
21 record provided from EPA which tried to admit on Item
22 No. 5 and it was referenced in our Contention No. 8.

23 JUDGE SPRITZER: Just a minute. The
24 letter that we were given today from EPA, the February
25 9, 2009 letter, you're saying that was referred to in

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1 Contention 8 as originally written.

2 MR. KEEGAN: Yes.

3 JUDGE SPRITZER: Okay. So it might be
4 something we could consider with respect to Contention
5 8 even if we can't consider it in what was it?
6 Contention 5 that it was offered before.

7 All right. Go ahead.

8 MR. KEEGAN: Okay. Your Honors, the ASLB
9 has requested "What are the locations of the viable
10 populations of the Eastern fox snake at the Fermi 3
11 site and how does their proximity compare with the
12 proposed area of construction?" We have requested of
13 the Michigan Department of Natural Resources as to
14 what are the seven endangered species at the Fermi
15 plant. They have declined to provide us with that
16 documentation, citing that it is against their policy
17 in that the public could potentially create a black
18 market in the Eastern fox snake or the other
19 endangered species.

20 We have filed a FOIA request and they have
21 lost it in the process. We have documentation that we
22 have submitted it. So we are still awaiting that from
23 them.

24 JUDGE SPRITZER: But they did give you, I
25 guess, this was an email from Laurie Sargent

1 concerning at least the Eastern fox snake and I take
2 it you're relying on that for your position that --

3 MR. KEEGAN: That was originally raised,
4 this contention. We spotted that in the EIS scoping
5 process.

6 JUDGE SPRITZER: Okay. And I take it your
7 contention is that this impact on the snake was not
8 adequately analyzed in the environmental report.

9 MR. KEEGAN: Correct.

10 JUDGE SPRITZER: You disagree. I mean the
11 ER does say something about the snake if I remember
12 correctly, but you're saying based on this document
13 that what they've had to say is not really the full
14 picture is not accurate.

15 MR. KEEGAN: Well, I would say yes. They
16 have not adequately addressed it in their ER and a
17 document dated 12/10/08 and logged into the NRC from
18 the Department of Environmental Quality at page three.
19 It would be the fifth paragraph down, a statement,
20 "Based on the WIP report, a significant portion of the
21 DEC property," that would be Detroit Edison Company
22 property, "contains regulated wetlands with most of
23 the wetlands on the site being Great Lakes coastal
24 wetlands with historic losses of greater than 95
25 percent of the coastal wetlands of Western Lake Erie.

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1 The wetlands on site represent a very important and
2 rare natural resources for the State of Michigan. The
3 environmental report describes the wetland impacts as
4 moderate. In fact, it appears that the project as
5 proposed would be one of the largest impacts to
6 coastal wetlands in the history of Michigan's wetlands
7 statue." And that speaks to the nature of the
8 contribulizing the impact of the wetlands and this has
9 come from the Department of Environmental Quality.

10 I have provided a document on the snake
11 itself, but that is one of seven endangered species
12 and it is the only one that we have been informed of.
13 So we are still seeking to find out what are the other
14 six endangered species. But the point being is that
15 it's a devastating -- The largest in history of
16 Michigan would be the impact on the wetlands and it is
17 not a moderate. It is the largest in the history of
18 Michigan.

19 And with that, I would see. I want to see
20 if I've addressed your contentions, your questions.

21 JUDGE SPRITZER: Well, let's start with,
22 and you may or may not know the answer to these. But
23 one of the questions we ask is what are the locations
24 with viable populations of Eastern fox snake at the
25 Fermi site and how does their proximate compare with

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1 the proposed area of construction?

2 MR. KEEGAN: It is reported by the
3 Michigan Department of Natural Resources that it is
4 onsite. Whether it is adjacent to Swan Creek which is
5 the northern border of the site is not known. This is
6 a snake that does swim back and forth.

7 JUDGE SPRITZER: This may be in the
8 document you've given us or some of the other
9 information already that you've already provided, but
10 is it an aquatic snake or does it live?

11 MR. KEEGAN: No, it nests on land, but it
12 travels in the wetlands.

13 JUDGE SPRITZER: So it uses both in other
14 words.

15 MR. KEEGAN: Yes.

16 JUDGE SPRITZER: And are they -- What do
17 they live on? Do they hunt for animal species and --
18 them? Or how they --

19 MR. KEEGAN: I'm tempted to say Fermi
20 workers, but --

21 JUDGE SPRITZER: Then we know --

22 MR. KEEGAN: -- there aren't any yet.

23 JUDGE SPRITZER: Right.

24 (Laughter.)

25 PARTICIPANT: A lot of mosquitos.

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1 MR. KEEGAN: The point is that the DNR
2 says there is a viable population of Eastern fox snake
3 at the site of proposed project and the DEQ says this
4 is the largest wetlands disturbance in the history of
5 the state. I'm looking for mitigation and looking for
6 consideration of this being the largest project in the
7 state history on wetlands and I don't think they
8 adequately addressed that in their ER. They
9 trivialize it as saying moderate.

10 In addition to the public, I did print
11 some plates of the snake itself if you're --

12 JUDGE SPRITZER: Okay. On the wetlands
13 issue, I'm a little confused by that. I had
14 interpreted this contention as focused on the snake.
15 I understand you may now have some additional
16 information or concerns about wetlands and I take it
17 your allegation would be you don't think those have
18 been adequately addressed either. So is that part of
19 Contention 8 as it's presently written?

20 MR. KEEGAN: The utility did not disclose
21 the seven endangered species and seeing that it's
22 going to be devastating to the wetlands those species
23 are going to be impacted by that. So that just
24 happens to be their home.

25 JUDGE SPRITZER: And I take it if the

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1 snake that you have raised, the contention, the
2 Eastern fox snake since it apparently lives in the
3 wetlands no one seems to -- At least part of its life
4 cycle is in the wetlands and its activities are in the
5 wetlands. It would presumably be or might be impacted
6 if there's going to be this very significant
7 alternation of wetlands.

8 MR. KEEGAN: Yes. There would be
9 significant wetland habitat destruction and that's the
10 thrust of it and these seven species just happen to
11 live in a wetlands that's going to be devastated.

12 JUDGE SPRITZER: Now I would assume
13 Michigan law and we have Federal law that requires a
14 permit for dredge and fill activities in waters of the
15 United States which probably would include these
16 wetlands since they're adjacent to Lake Erie. What
17 about Michigan? Do you know anything about Michigan
18 law with respect to do you need a permit under
19 Michigan law to alter wetland areas? I should say
20 does the Applicant.

21 MR. KEEGAN: Michigan at one time had a
22 tougher law, but now because of economic restraints
23 the state is considering turning back wetlands to the
24 Federal corps and so the oversight would be diminished
25 in my opinion.

1 JUDGE SPRITZER: All right. We'll let you
2 reserve the rest of your time from rebuttal. Who are
3 we hearing from the Applicant on this? Mr. Repka.

4 MR. REPKA: Yes. Okay. Let me first
5 start out by saying that, and I think less subtle than
6 perhaps you were, Judge Spritzer, I never read this as
7 a contention about wetland impacts and don't view it
8 as that. This was a contention about the Eastern fox
9 snake and whether or not the impacts on the snake were
10 being adequately addressed.

11 With respect to wetlands impacts, the fact
12 of the matter is that that is an issue for which a
13 permit will be required and it will be required from
14 the Army Corps of Engineers and Detroit Edison is
15 working on that issue right now and that's something
16 that is not resolved. The wetlands mitigation or
17 impacts mitigation is clearly part of that process and
18 will be addressed there.

19 With respect to the Eastern fox snake,
20 that's the only supposedly threatened or endangered
21 species that's identified in detail in the contention
22 and that's one that the existence at the site was
23 disclosed in the environmental report. It is not a
24 federally-list threatened or endangered species.

25 And, second, to respond to one of the

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1 Board's questions, we looked to see if it was one that
2 has been proposed for Federal protection and there's
3 no evidence that that is the case. It does not appear
4 that it's proposed.

5 It is a state threatened species and so
6 Detroit Edison having identified the existence of the
7 Eastern fox snake on the site has identified that to
8 the Michigan Department of Natural Resources, the DNR,
9 and is working with the Department to mitigate
10 impacts on the Eastern fox snake. So that's again
11 it's something that there's certainly no failure to
12 disclose in the Federal environmental report and more
13 fundamentally there's no failure to address the issue.
14 It's being addressed through the appropriate state
15 process.

16 JUDGE SPRITZER: I take it the substance
17 of their contention is they disagree with your
18 environmental report on the degree of the impact,
19 whether it would be severe and harmful or not.

20 MR. REPKA: Yes and certainly I don't
21 think that there's been any basis demonstrated to show
22 that it will be anything except a small impact on the
23 snake. In fact, subsequent analysis has shown, I
24 think, what the original ER noted two sightings of the
25 Eastern fox snake onsite. Subsequent analysis has

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1 shown that there's a very healthy population of the
2 Eastern fox snake in and around the area and not
3 restricted to any one particular location, not
4 restricted to the area where the proposed Unit 3 would
5 be. So again, I don't think that it's anything that
6 there's any basis to say that a specific habitat is
7 uniquely threatened. But in any event that issue and
8 the impact on the snake will be precisely addressed
9 through the DNR process with the state.

10 JUDGE SPRITZER: Do you all have to get a
11 permit of some sort from the DNR or how does that
12 work?

13 MR. REPKA: I don't believe it's a permit.
14 (Off the record discussion.)

15 MR. REPKA: The short answer is yes.
16 Apparently there is a permit related to a state
17 threatened species.

18 JUDGE SPRITZER: Right. So you -- Even
19 though this is a state statute it may not be something
20 that governs the NRC. I take it Detroit Edison has to
21 comply with.

22 MR. REPKA: That's correct.

23 JUDGE SPRITZER: Michigan law not
24 surprisingly.

25 MR. REPKA: That's correct.

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1 JUDGE CHARBENEAU: Whether this is a
2 contention that deals with wetlands or not, to what
3 extent were wetlands' impacts discussed in the ER?

4 MR. REPKA: I believe -- Hold on.

5 (Off the record discussion.)

6 Yes, I think it's -- The answer I'm
7 hearing is exactly the one that I expected which is
8 they are discussed extensively in the ER and I'm
9 looking at my notes. The ER, Section 4.3.1.2.1 and
10 this is focused on snake, but it says, "Construction
11 is primarily away from the habitat wetlands and
12 therefore the impact is small." That's the impact on
13 the snake.

14 ER, Section 2.4.1.2.3 discusses wetlands'
15 impacts. That's the statement that's being cited that
16 the impacts would be moderate. Again, those impacts
17 are being addressed through the Army Corps of
18 Engineers' process and any wetlands mitigation steps
19 that will need to be taken to get the appropriate
20 permits will be addressed in that context.

21 So the wetland impacts are in the ER and
22 they are addressed. They're noted as being moderate
23 with a small impact on the state and I think the
24 reality will be by the time the process is done it
25 will be less than that.

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1 JUDGE SPRITZER: Is there any disagreement
2 from the Applicant that the snake either resides in or
3 from time to time is found in the area where Fermi 3
4 will be constructed?

5 MR. REPKA: I think that it's certainly
6 found onsite within the footprint I wouldn't want to
7 say categorically. But I wouldn't make the conclusion
8 that the footprint will be in an area where the snakes
9 are. A lot of the footprint will be in an area
10 that's previously disturbed and is not wetland. So
11 that should have very little, if any, impact on the
12 snake.

13 The site is very large and the site has a
14 substantial number of wetlands that will not be
15 impacted. So I think that there is apparently a
16 healthy population and I would expect it to remain
17 that way.

18 JUDGE SPRITZER: Okay. Anything further?

19 MR. REPKA: I would just make the comment
20 on the additional materials passed out this morning or
21 just on this contention the email that we had seen
22 before, the February 3rd letter, is not something we
23 had seen before, at least, on this record nor do I
24 think it was cited in the contention and the rare
25 species, the printout from, well, wherever it's a

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1 printout from, we had not seen before either.

2 JUDGE SPRITZER: Okay. Well, I just think
3 that gives us a little additional background. But the
4 real important document for this contention at least
5 seems to be the email from the state.

6 All right. Let's hear from the staff on
7 this contention. We've heard from the Applicant.
8 We've heard from the Petitioner. They obviously have
9 a disagreement on what the impact is. We do seem to
10 have though a difference of opinion at least so far
11 between Ms. Sargent from the Michigan Department of
12 Natural Resources on the one hand and what's in the
13 environmental report on the other. Isn't this a
14 garden variety? Applicant says one thing. Petitioner
15 says another and at least they have some factual
16 support. The Petitioner does.

17 MS. SIMON: Well, the factual support in
18 the email from Ms. Sargent doesn't even specify
19 locations of the viable population. So it doesn't
20 support the disagreement with the small impact because
21 there's nothing to support the proposition that the
22 snakes will even be impacted if you don't know the
23 location.

24 JUDGE SPRITZER: She says there's a viable
25 population of Eastern fox snake at the site of the

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1 proposed project. I take it that means where the
2 project will be built. At least, that would be a
3 plausible reading of what she's got to say.

4 MS. SIMON: I think it's equally plausible
5 that you could read it at the site of the proposed
6 project meaning the entire Fermi site and I would just
7 refer back to our answer. We feel that the email from
8 Ms. Sargent expresses a belief that there might be
9 harm without being sufficiently specific.

10 I would --

11 JUDGE SPRITZER: Supposedly we would
12 disagree with you on that. Is there any other reason
13 to reject this contention other than the lack of
14 specificity in her email?

15 MS. SIMON: It doesn't -- Well, I guess if
16 you look at the contention admissibility requirements
17 in F1.6 you are required to cite the specific portions
18 of the application that you disagree with and your
19 supporting reasons and I'm not sure that they did
20 that. I don't see a citation to a specific portion of
21 the application and, as the Applicant has noted, they
22 did look at the impacts and so --

23 JUDGE SPRITZER: I understand. They're
24 not, I don't think the Petitioners are suggesting this
25 is a contention of omission. They're disagreeing with

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1 the conclusions that were received. At least, that's
2 the way I read the contention.

3 Let me ask this. Do you disagree -- Would
4 the staff agree that -- First of all, I take it the
5 NRC itself is not subject to whatever the Michigan
6 Endangered Species statute is. That is, is the NRC
7 under any obligation to comply with that statute? We
8 understand the Applicant.

9 MS. SIMON: Not that I'm aware of.

10 JUDGE SPRITZER: All right. It's silly to
11 think you would be. On the other hand, I take it you
12 don't contend that a threatened species even if the
13 NRC is not directly subject to that statute that it's
14 something that ought to be -- the impact on that
15 species if there might be one is something that ought
16 to be addressed in the environmental report.

17 MS. SIMON: Yes. And that's something
18 that the staff will address in the EIS.

19 JUDGE SPRITZER: Very good. Well, I think
20 I understand everyone's position on this contention.
21 Did you have any other that you wanted to make?

22 MS. SIMON: I just wanted to echo the
23 Applicant's point that we have not seen this February
24 3rd letter or either regarding the -- stated that the
25 impact to the wetlands would be one of the largest

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1 impacts in the history of Michigan.

2 JUDGE SPRITZER: All right. Okay. I
3 thought the Petitioners said it wasn't in the record,
4 but there may be some dispute on that. So you object,
5 both of you object, to the consideration of the
6 February 3 DEQ letter to the extent that we would need
7 to consider it and I take it also to the excerpt on
8 the Eastern fox snake, the one with the document that
9 has the picture on the first page.

10 MS. SIMON: Yes.

11 JUDGE SPRITZER: All right. And what else
12 do we have here?

13 MR. KEEGAN: The original email.

14 MR. KAMPS: The email obviously was
15 referred to in the petition.

16 All right. Reply? Any reply from the
17 Petitioners?

18 MR. KEEGAN: Yes. The nature of the
19 contention is endangered species and the preservation
20 of habitat. The ASLB has raised the question about
21 wetlands and that is why we provided the DEQ document.

22 Again, the utility in the ER talks about
23 a moderate impact and again the environmental report
24 describes a wetlands' impact as moderate. In fact, it
25 appears that the project as proposed will be one of

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1 the largest impacts to the coastal wetlands in the
2 history of Michigan Wetland statute. I said that
3 before.

4 The next paragraph is "Under Part 303
5 permits are required for any wetland dredging,
6 filling, draining or maintaining a use or development
7 in a wetland." The location type function and value
8 of wetlands onsite should be considered during design
9 and any impacts avoided and minimized to the greatest
10 extent possible. Any proposed impact areas should be
11 identified including impacts from temporary and
12 permanent parking, construction activities,
13 transmission lines and reviewed through an
14 environmental assessment of the site that evaluates
15 plant and animal species and habitat diversity." And
16 again the only endangered species that they noted in
17 their ER was the Eastern fox snake.

18 JUDGE SPRITZER: Let me just ask about
19 this DEQ letter, the February 3, 2009 letter. I
20 understood you to say that you thought this was in the
21 record before us already, but this is not a new
22 document that you're submitting for the first time.
23 Did I understand you correctly?

24 MR. KEEGAN: Yes. It was submitted to the
25 NRC February 3, 2009.

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1 JUDGE SPRITZER: When you say submitted --
2 Oh, I see, by the fact that you -- When you say
3 submitted to, that's based on the fact that it's
4 addressed to them.

5 MR. KEEGAN: Right. And since the ASLB,
6 Judges, you asked for about wetlands and I look to
7 provide that documentation as to the impact.

8 JUDGE SPRITZER: Okay. We asked the
9 question. We got the answer. Okay. Fair enough.

10 As to the wetlands issue, I mean is there
11 any -- As both my own commentary and Mr. Repka pointed
12 out earlier, I haven't seen anything in your petition
13 and it was quite lengthy and detailed that raised a
14 wetlands' contention, a contention that's specific to
15 wetlands as opposed to the snake. Now maybe I've
16 overlooked something. So if there's some place and if
17 you can't answer that right now, we can hear from you
18 again later about that. But is there any?

19 MR. KEEGAN: The connectedness is the
20 endangered species live on these wetlands and the
21 wetlands are about to be devastated and we're looking
22 to protect those endangered species and we're looking
23 for preservation of the habitat.

24 JUDGE SPRITZER: Okay. Well, certainly as
25 it relates to the snake, I understand the relevance of

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1 the wetlands issue. I guess what I'm asking is was
2 there any independent contention. I think you've
3 answered that as it relates to the endangered species
4 issue. Okay.

5 Anything further you wanted to point out
6 on this contention?

7 MR. KEEGAN: That each incremental threat
8 to an endangered species pushes it closer and closer
9 to extinction and again it's an accumulative impact.
10 Though they have nine sitings at the Fermi site in
11 2007. But any damage to the wetlands is going to be
12 incremental impact and could lead to extinction.

13 I would like to confer for a moment.

14 JUDGE SPRITZER: Very well.

15 (Off the record discussion.)

16 JUDGE CHARBENEAU: Can I ask a question of
17 staff then?

18 MS. SIMON: Sure.

19 JUDGE CHARBENEAU: From your review of the
20 material in the ER, is there sufficient information on
21 wetland mitigation for preparation of the EIS?

22 MS. SIMON: Could I consult with the
23 environmental PR for a second please?

24 (Off the record discussion.)

25 We can't -- The regulations require an

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1 analysis that discusses ways to minimize the impacts.
2 It doesn't specifically -- The regulation 10 CFR
3 51.45(c) doesn't specifically require a discussion of
4 mitigation per se. But in addition to what the
5 Applicant pointed out, there is also a discussion on
6 page 4-46 of ways that will, measures that will, be
7 taken to try to reduce the impacts as much as
8 possible.

9 At this point, it's impossible to say for
10 sure whether or not there would be an RAI on this
11 issue. But there is enough right now for the staff to
12 begin its EIS preparation.

13 JUDGE CHARBENEAU: Thank you.

14 JUDGE SPRITZER: What was the page? That
15 was a page from the environmental report?

16 MS. SIMON: That was page 4-46.

17 JUDGE SPRITZER: Go ahead.

18 MR. KEEGAN: Yes. Back to our original
19 March 9th contention, Contention No. 8, the second
20 paragraph, "Petitioners hold that inadequate
21 mitigation has been considered." Okay. The next
22 paragraph, "Petitioners hold that the EPA has stated
23 'EPA encourages selection of alternatives with least
24 impacts to wetlands.' Therefore we recommend the
25 complete evaluation of the wetlands impacted by each

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1 feasible alternative site. We also encourage facility
2 footprints within the plant site that will
3 avoid/minimize wetlands impact. If there are wetlands
4 impacts, we recommend characterization and mitigation
5 information be included in the EIS and not deferred to
6 the permit stage." And this is a letter from the EPA
7 dated 2/09/09 to Fermi 3 and that was provided to the
8 record.

9 Again, in the ER, they say it's moderate
10 impact and we've seen what the DEQ says it's going to
11 be the largest in state history. To continue,
12 "Petitioners assert that alternatives have not been
13 given the requisite hard look and as a result several
14 species are threatened and endangered. Alternatives
15 must be examined and in the event that Fermi 3 is
16 pursued, mitigation measures must be taken."

17 JUDGE SPRITZER: All right. I think we'll
18 take another break now. Before we do though, I do
19 want to raise one issue the Petitioners -- We have a
20 question for the Petitioners. I know you said earlier
21 you didn't want to pursue argument on Contention 10.
22 But it wasn't clear to me whether you are intending to
23 withdraw Contention 10 or you're simply saying you
24 don't need to pursue argument on it.

25 If you're not withdrawing it, we do still

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1 need I think an answer to the question that we asked
2 you about on Contention 10 which is and it may be a
3 relatively simple one or may not be, I don't know, for
4 you to answer. But if you could let us know after the
5 break and confer among yourselves during the break and
6 let us know (a) do you intend to withdraw it and, if
7 not, (b) be prepared to answer our question on that
8 contention.

9 All right.

10 MR. SMITH: I would be happy to answer
11 your earlier question regarding the discussion of the
12 thermal plume.

13 JUDGE SPRITZER: Right.

14 MR. SMITH: And it's interaction with
15 nearby neighboring facilities.

16 JUDGE SPRITZER: Okay.

17 MR. SMITH: Section 6.1.1 discusses the
18 thermal monitoring and thermal modeling and discusses
19 in particular impacts on neighboring facilities and
20 notes that there is no interaction with the nearby
21 thermal plumes. That discussion is also in Section
22 5.3.2.1.1.7 and that section describes the modeling
23 that was done and the different modeling sets that
24 were evaluated and notes it as a very small plume that
25 would not interact with Fermi 2. By extension it

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1 would not impact with other nearby plumes that are
2 farther away than Fermi 2. Fermi 2 is the closest
3 nearby facility.

4 JUDGE SPRITZER: All right. Thank you.

5 All right. We'll take a ten minute break
6 and we'll be back at 2:25 p.m. Off the record.

7 (Whereupon, a short recess was taken.)

8 JUDGE SPRITZER: All right, back on the
9 record.

10 First, do petitioners have a response to
11 our questions regarding Contention 10?

12 MR. LODGE: Yes, sir, we do.

13 We're withdrawing it.

14 JUDGE SPRITZER: Okay. All right, I
15 don't need to ask you anything more about Contention
16 10. That's withdrawn.

17 I take it there is no objection to
18 withdrawing it from either the applicant or the staff?

19 MS. SIMON: Not from the staff.

20 MR. LODGE: Your Honor, it is true
21 however that this particular band was not notified
22 about the pendency of this proceeding. But we're
23 withdrawing it.

24 JUDGE SPRITZER: All right, let's move on
25 to Contention 12. Contention 12 alleges that the

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1 emergency radiological response plan at Fermi 3 is
2 deficient in various respects.

3 We will first hear from Mr. Keegan for the
4 petitioners.

5 MR. KEEGAN: Thank you.

6 The proposed Fermi 3 - we have a Fermi 2
7 and we have a Fermi 1. And we have a workforce at
8 Fermi 2 currently.

9 According to their documents in the year
10 2017 there would be the height of the construction
11 space would be up to 3,000 workers, and also at 2017
12 that would coincide with a refueling outage for the
13 Fermi 2, which would bring a total of 1,500 workers.

14 They talk about the potential of an
15 additional 5,000 vehicles being on site. And my major
16 concern is a shadow, an evacuation shadow, that will
17 be created if indeed there were an accident at Fermi
18 2 in 2017.

19 That accident could potentially be a
20 devastating accident in that in the year 2015 the
21 spent fuel pool has been refaced (phonetic), and will
22 be filled to the point after refueling outage that in
23 four hours 12 minutes the pool could boil off if there
24 was a loss of recirculation.

25 So the type of accident that occur could

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1 be severalfold larger than Chernobyl, because the
2 spent fuel pool is - at that point will have twice the
3 amount that it was designed to have.

4 The point being that there are 5,000
5 additional vehicles on site, up to, along with the
6 current Fermi 2 workers. They will have immediate
7 notification of evacuation, and they will leave the
8 plant; I project they will leave the plant.

9 And in the process they will create, lock
10 in in all the beach areas, Astrobeach, Detroit Beach,
11 several beach associations which are on roads you have
12 to wind through turn after turn after turn, out on
13 jettisons, those people would fall into the shadow of
14 evacuating Fermi workers from Fermi 2, the refueling
15 outage, and from the construction at Fermi 3, thus
16 creating a huge shadow by which those people will not
17 be able to evacuate in a timely manner.

18 I have looked at the evacuation plan. It
19 talks of 3-1/2 hours in inclement weather up to 4-1/2
20 hours, the point being those 5,000 plus workers, and
21 the regular Fermi 2 workers, as they are leaving,
22 while we have modern technology of the cell phones,
23 they will be notifying their loved ones and neighbors,
24 and there will be a further shadow which will delay
25 their evacuation and still further delay the

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1 evacuation of those people who are east of the primary
2 evacuation route.

3 My point is that some mitigation needs to
4 occur. Residents should not be put into a position
5 whereby they have to compete with utility workers to
6 evacuate, and so I as a mitigative purpose I
7 recommend, we recommend, that separate roads be
8 developed and maintained for those workers to come in
9 and go out; separate roads of egress so whereby the
10 population is not forced to compete with the workers,
11 who will have first notification to evacuate.

12 Another mitigating factor we believe
13 should occur is that all those residents should have
14 potassium iodine. They should have it in the homes,
15 and they should have it restocked every six months or
16 so. But they are right there; they are in the shadow
17 of a potential accident.

18 And as we look around the state of
19 Michigan, we see municipalities are defined from their
20 tax base, and many counties are like that as well. We
21 do not have an adequate little commission planning all
22 the evacuation routes. This was in the front page
23 paper, and this was presented as a document in my
24 testimony, in our March 9th contention.

25 The point is that these roads have to be

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1 plowed. It can't wait, okay, we'll wait until the
2 next shift, or we will wait 18 hours, or we will have
3 it done within 24 hours. They need to be plowed
4 instantaneously.

5 So as a mitigating factor what we are
6 asking for is that a garage be provided at the south
7 end of the north Dixie, toward I-75, and that a garage
8 be provided farther north, beyond the plant; and that
9 each garage be supplied with three plows whereby they
10 can be - the roads can be cleared in a timely fashion.

11 This is a mitigating factor, and it's the
12 price of doing business. If you are going to build a
13 nuclear power plant which potentially threatens the
14 population, and according to the crack 1980 report,
15 NRC report, potential 340,000 injuries, 13,000
16 cancers, 8,000 immediate deaths; that was the NRC's
17 own numbers.

18 So it's the price of doing business. If
19 you are going to have a nuclear power plant, please
20 have the adequate plows and road crew for getting them
21 out of there.

22 In addition there is an inadequacy of
23 buses to evacuate Jefferson School. I am informed
24 that the Jefferson School system now relies on public
25 transport whereby they would go out to transport them.

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1 So you are asking people to enter closer to the plant,
2 potentially a contaminated site, in order to evacuate.
3 I think this is - while they may say it will work on
4 paper, the reality is I don't believe people are going
5 to risk their life to go that distance.

6 As a mitigating factor I would suggest
7 that the Fermi have a fleet of buses on site, and I
8 would say biodiesel natural gas buses, where they
9 could then go and evacuate those populations in a
10 timely fashion rather than having a multitude of cars
11 on the road. With some buses they could do it
12 probably much more effectively and creating less of a
13 shadow.

14 And that's the nutshell of the contention.

15 JUDGE SPRITZER: We did ask whether - are
16 there any specific NRC regulations you contend require
17 any of the specific measures you mentioned? Or are
18 you just saying that as a general matter their plan is
19 inadequate?

20 MR. KEEGAN: Well, I believe the
21 regulations are 3-1/2 and 4-1/2 hours if it's in
22 inclement weather. I may be out of bounds here.
23 There is a 10-minute EPZ which if called for needs to
24 be evacuated.

25 My point is that that 10-mile EPZ - 3-mile

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1 EPZ can't be evacuated once those workers create that
2 shadow by clogging the roads. And the way to mitigate
3 that is, build roads. And I mean we are talking a \$10
4 billion project. That's part of the business. And it
5 would make it easier on all residents involved.

6 Now I know that there is a Fermi 2
7 evacuation plan which they have done, and it's been
8 approved, and there is a process to challenge that
9 through 226. But I hear so much about Detroit Edison
10 being the good neighbor. I would ask them to be the
11 good neighbor and to reach into their pocket and
12 provide those residents, provide a new road so they
13 can get the workers out of there and the residents
14 don't have to compete, and provide those garages and
15 stair plugs. It's a good will gesture, but as the
16 economy tightens, it's not going to the road
17 commission who is going to be able to afford it. It's
18 only going to get worse and worse. And we have seen
19 it front page paper in Monroe and that was part of our
20 original submittal. So.

21 JUDGE SPRITZER: All right, let's hear
22 from the applicant on this contention. Mr. Repka.

23 MR. REPKA: Okay, in general I would say
24 as we did in our written filing that there is no basis
25 for a contention here, that either as a matter of fact

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1 to challenge the evacuation plan, the evacuation time
2 estimates that are included in the application, or to
3 allege that there has been any particular
4 noncompliance with NRC regulations. In fact no
5 regulation I think has been cited where there is an
6 alleged noncompliance.

7 Let me begin by reiterating a point made
8 in our brief, and that's that NRC regulations at 10
9 CFR Section 5279(a)(21) require an application for a
10 COL to include an emergency plan. And Detroit Edison
11 has done exactly that.

12 Ultimately implementation of that plan
13 will be subject to completion of inspections, tests
14 and analyses, and emergency drills and exercises that
15 will establish reasonable assurance that the plant
16 will operate and conform with the license.

17 So a lot of details on things like plows
18 and other things really are premature at this point to
19 the extent that there even was an alleged
20 noncompliance. I think a lot of what is being alleged
21 is really an implementation detail that is beyond the
22 finding that is necessary at this point.

23 Having said that all the specific issues
24 that have been raised in the papers at least have been
25 addressed in our written reply, and they have all been

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1 addressed through the emergency plan and the
2 evacuation time estimates, and not a single piece of
3 evidence has been brought in, or any expert opinion
4 that would show that the evacuation time estimates or
5 the evacuation routes or the severe weather analysis
6 or the shadow effect analysis that is included in the
7 evacuation time estimates is inadequate. I mean there
8 has been absolutely no basis presented to challenge
9 any of what is in the application.

10 I think we heard here this afternoon a lot
11 of focus on the scenario of the construction, key
12 construction simultaneous with a refueling outage at
13 Fermi 2. That is a scenario that is specifically
14 evaluated in the evacuation time estimate study that
15 was included with the application. That is Scenario
16 #14. And again there has been no basis provided to
17 suggest that the study of that scenario is inadequate.

18 We did hear something here this afternoon
19 about the spent fuel pool and boiling down and severe
20 accidents, and not sure exactly what's involved there.
21 That is not something we've heard about before in the
22 written filings, but that certainly sounds to me an
23 awful lot like a scenario that is beyond the design
24 basis of Fermi 2, much less Fermi 3. I don't think
25 there is any requirement to consider a complete drain

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1 down of the spent fuel pool.

2 But again, we don't have a lot of
3 specificity on that particular scenario that is being
4 alleged.

5 There is a lot of mention of the so-called
6 shadow effect. And what the shadow effect is is
7 really the consideration of evacuation outside the 10-
8 mile EPZ, and any effect it might have on evacuation
9 time estimates, and evacuation plans inside the EPZ.

10 And that's been specifically included, that effect,
11 and modeled, in the Detroit Edison evacuation time
12 estimate study.

13 In fact I think the only document that was
14 presented with the reply finding on the shadow effect
15 was a one-page diagram of the shadow effect that was
16 actually excerpted right from the Detroit Edison
17 evacuation time estimate study in the application. So
18 again no independent basis is being provided to
19 challenge any assumptions that have been used in the
20 modeling.

21 The petitioners talk about the need for
22 new roads. Well, again, the evacuation routes are
23 explained in the evacuation plan, and in the time
24 estimate studies. The estimates are what they are.
25 I think that they show that the evacuation is

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1 reasonable and achievable, and certainly at a level
2 consistent with what the NRC needs to find at this
3 particular point.

4 Beyond that specific road projects I think
5 are beyond the scope of the NRC's jurisdiction, and
6 beyond the scope of what our belief that could be
7 granted in this particular forum. Suffice it to say
8 with respect to emergency planning and emergency
9 response capability, that is something that the state
10 and local authorities would be very involved in and
11 are very involved in for Fermi 2, and would have their
12 own evacuation plans.

13 So I think that this suggestion that
14 building new roads is a price of doing business I
15 think is far beyond what the NRC regulations require.

16 With respect to potassium iodide, again as
17 we talked about in our written reply, under NRC
18 regulation that is a matter that is deferred to the
19 discretion of the states, and as far as we know the
20 state of Michigan has not requested distribution of
21 potassium iodide.

22 And then the last thing again is more
23 about plows. And again I do think that is an
24 implementation deal that is far beyond what the board
25 needs to find right now, how many snow plows there

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1 are. But again the Fermi 2 plan has been exercised.
2 It has been found by FEMA to be in compliance with NRC
3 regulations. And certainly there is no suggestion
4 that the severe weather that might exist for Fermi 3
5 would be any different for current Fermi 2.

6 And I think the bottom line on this
7 contention is that there really is again no basis, no
8 technical basis, to support the charges that things
9 are inadequate, or more importantly, that any NRC
10 regulation would not be met.

11 JUDGE KENNEDY: In the ER under the
12 instruction, traffic impact, I guess it indicates
13 there will be a moderate impact and calls for
14 mitigation. Can you expand on that, and maybe does it
15 touch into the emergency response, emergency planning
16 venue? Does it even - is it connected, do you see a
17 connection between that impact analysis and what the
18 petitioner is raising here?

19 MR. REPKA: Number one, I can't give a lot
20 more detail about what is considered in the
21 environmental report in terms of traffic impacts. But
22 number two, I don't see any connection between that
23 and emergency planning. I think again the evacuation
24 time estimates are based on what is the realistic
25 expectation in terms of volume of cars, weather

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1 impacts, the available roads, and so in a very
2 quantitative way that modeling is trying to reflect
3 what is reasonably anticipated. And I think that is
4 something that is a lot different and a lot more
5 specific than the assessment in the ER.

6 JUDGE KENNEDY: But it doesn't envelope -
7 maybe I'm trying to make too tight of a linkage. But
8 you've got an impact because you've got a construction
9 crew that could impact the Fermi 2 site evacuation
10 plan. And I think you started to touch on that, or
11 did touch on that. Is that one of the potential
12 construction impacts? And does it require mitigation
13 as it seems to indicate - well, some sort of traffic
14 impact seems to call for mitigation in the
15 environmental report. And I think I'm trying to see
16 if there is a question already answered here, or if
17 the petitioner's question is still lingering out
18 there, that there is an environmental impact due to
19 construction and it could have an impact on the Fermi
20 2 -

21 MR. REPKA: I think that the kind of
22 impacts you look at in the environmental report
23 related to construction would be volume of traffic on
24 the road, construction workers, how that compares with
25 the present volumes. I really don't think that

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1 correlates to emergency response. That is just day to
2 day routine traffic. And the kind of mitigation
3 measures you'd look at, and certainly NEPA doesn't
4 require mitigation, but you would look at mitigation
5 measures potentially things like car pooling and
6 things like that that might reduce traffic on the
7 roads. And I don't know if that specifically is what
8 was meant there; I don't have enough familiarity with
9 it. But I think generally that is what I would expect
10 in connection with an environmental assessment or
11 environmental analysis.

12 And again that is very different from an
13 evacuation time estimate study.

14 JUDGE KENNEDY: I guess maybe a side part
15 to that is, I guess I'm unclear as to show this really
16 works, when you have an operating plant and one about
17 to go under construction. And you have an emergency
18 plan for the operating plant, and you filed an
19 emergency plan as part of the application for Fermi 3,
20 or it's a combined plan, I'm not sure exactly how this
21 works.

22 So if there is a large construction
23 activity going on, how is that integrated into the
24 Fermi 2 emergency response plan?

25 MR. REPKA: I think I know the answer to

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1 that, but let me consult for just a second.

2 (Pause)

3 MR. REPKA: The way this would work is that
4 during the construction period, and Fermi 2 is the
5 operating unit, it's a Fermi 2 emergency response plan
6 and evacuation plan. And at the point at which Fermi
7 3 is going to go into operation, the plans become an
8 integrated plan.

9 JUDGE KENNEDY: So if I'm the plant
10 manager at Fermi 2 and I've got to think about a
11 3,000-person workforce that is on site at Fermi 3, I
12 know you are going to tell me it's outside of the
13 scope of this, but I'm really trying to understand how
14 this all works together. I think the petitioner has
15 raised some sort of combined issue here of impacts
16 that relate to Fermi 2.

17 How does this actually work? Is it an
18 amendment to the emergency plan? Is it a special
19 consideration?

20 MR. REPKA: The evacuation time estimate
21 study that is submitted as part of the COLA, the COL
22 application, it's an updated evacuation time estimate
23 study. It updates the study for Fermi 2.

24 During construction the Fermi 2 plan would
25 be changed, amended, by the appropriate change

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1 process, to reflect anything that comes out of this
2 study that is applicable during that phase. And that
3 might be modified time estimates for the construction
4 phase. I can only speculate at this point what that
5 might be. But it should be integrated with the Fermi
6 2 operating plan, and then ultimately that will become
7 a combined site plan.

8 JUDGE KENNEDY: Is that - having not read
9 the emergency plan - is that described in the COLA,
10 this process of how it will evolve from a Fermi 2 to
11 a Fermi 3, or a combined site emergency plan?

12 MR. REPKA: I don't think the COLA says
13 that specifically. It's presented as a Fermi 3 plan
14 in the COLA.

15 JUDGE KENNEDY: You alluded to
16 implementation details. Are those again the sort of
17 activities that occur as the emergency plan evolves?
18 How do you - you have a plan, and I guess you test the
19 plan once -

20 MR. REPKA: You have the normal NRC
21 requirements that apply to the operating unit that
22 require certain drills and exercises. I believe it's
23 a biennial exercise with full participation of state
24 and local authorities; other drills that are not full
25 participation on a schedule established by the rules.

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1 I would expect that that would continue.
2 I would expect with respect to Fermi 3, when you bring
3 a new plant online, there is a normal process in which
4 you have FEMA review and NRC review of emergency
5 plans.

6 That process I would expect would be
7 integrated with the existing drill and exercise cycle,
8 because one of the normal pre-operational mileposts is
9 the pre-operational exercise of the plans. So I think
10 it would be some kind of - again, I would anticipate
11 it would be some kind of - one of the existing full
12 participation exercises for Fermi 2 would be used to
13 test the combined plan.

14 JUDGE KENNEDY: Then in the sorts of
15 issues that the petitioners raised in terms of
16 sufficiency of plows, sufficiency of school buses, how
17 is that feedback - these are real life problems that
18 occur in any community - how do those get brought back
19 into the Fermi 3 - and I guess we use Fermi 3 since
20 it's a Fermi 3 proceeding - how does that get dialed
21 back into the plan as it evolves?

22 MR. REPKA: Well, I think, again, we have
23 a Fermi 3 plan, and a Fermi 3 updated evacuation time
24 estimate study, so that is going to be about the
25 latest information, and I think that would be utilized

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1 to update the combined plan to the extent necessary.

2 So I think that would be the feedback
3 process. I can verify this, but I suspect that that
4 might happen anyway in accordance with the - now that
5 there is a revised evacuation time estimate study.

6 JUDGE KENNEDY: It seems like that would
7 be the starting point, then, because you haven't had
8 a drill yet with the Fermi 3 plan.

9 MR. REPKA: Mr. Smith is just telling me
10 this wouldn't be new information to the state and
11 local authorities. They know that there have been the
12 revised studies, and the company has been working with
13 them or with their knowledge all along. And so it's
14 a collaborative process, as ultimately the site plan
15 is integrated with the state and local plan.

16 So again it's a collaborative ongoing
17 process.

18 JUDGE KENNEDY: I think that is what I'm
19 looking for. It's from a planning perspective, to
20 know what is going to happen five years from now is
21 difficult certainly to anticipate. What I'm looking
22 for is did the plan recognize some sort of feedback
23 mechanism between state and local authorities, and the
24 planning operation within the licensee's planning
25 organization.

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1 MR. REPKA: Yes, and I believe that just
2 exists as a routine matter, given that there is an
3 operating station there. With respect to some of the
4 other issues like the schools and the buses, again,
5 there is updated analysis in - we think in many
6 respects a better analysis in the latest evacuation
7 time estimate study, but the nature of the population
8 in the area is not - that doesn't change. The onsite
9 workforce may be different, but the licensing of Fermi
10 3 doesn't change the number of schools in the area or
11 the number of transit dependent populations or
12 whatever.

13 So that is information that would continue
14 to be updated for Fermi 2 regardless of what happens
15 with Fermi 3.

16 JUDGE KENNEDY: Thank you.

17 JUDGE SPRITZER: Just one point of
18 clarification. Did I understand you to say earlier
19 that the Fermi 2 plan would be updated as a result of
20 Fermi 3 construction, number one; and number two, that
21 the updated Fermi 2 plan would become the plan for the
22 whole complex?

23 MR. REPKA: Some version of that. I mean
24 I think the idea is that the plan would become a
25 single site integrated plan at some point. And

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1 obviously the onset of construction would be a
2 milepost that would seem to compel that, because that
3 is when you are going to start bringing more workers
4 on site that would be more consistent with some of the
5 scenarios that are included in a revised evacuation
6 time estimate study.

7 JUDGE SPRITZER: And would that overall
8 site plan then be within the scope of the NRC's
9 licensing for Fermi 3?

10 MR. REPKA: I can't answer - I mean yes, it
11 would be. Because the Fermi 3 would be required to
12 have a plan. And if that requirement is fulfilled by
13 a combined Fermi 3-Fermi 3 plan, that should meet the
14 NRC's requirements. If it ended up being separate
15 plans, that should equally meet the NRC's
16 requirements. And how they would want to do that, I
17 don't know. They would have to speak for themselves
18 on that. But certainly the way I'm understanding
19 this, at some point there will be a combined
20 integrated site plan.

21 JUDGE SPRITZER: Well, maybe this would
22 be - unless you had something else, Mr. Repka, maybe
23 this would be an opportune moment to ask the NRC staff
24 essentially the same question, and that is, would
25 there be an integrated site plan that would cover

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1 Fermi 2 and 3 at some point, and if so is that within
2 the scope of this proceeding?

3 MS. CARPENTIER: I'd like to consult with
4 Mr. Hale on that for a moment.

5 (Pause)

6 JUDGE SPRITZER: Go ahead.

7 MS. CARPENTIER: To some extent that
8 depends on what the applicant submits. If they
9 chooses to go with an integrated plan we will evaluate
10 it as such. And it would be - or the licensing
11 decision that the NRC has to make.

12 JUDGE SPRITZER: Would they make this
13 choice of what kind of site they want to submit,
14 whether it's site-wide or specific to Fermi 3, before
15 the license is issued? For Fermi 3? If you can
16 answer that without speculating.

17 MS. CARPENTIER: It's at least
18 hypothetically possible that they might go with a
19 separate plan until the license is issued, and at a
20 later date switch to a combined plan.

21 JUDGE SPRITZER: But they might also do
22 it the other way around?

23 MS. CARPENTIER: Yes.

24 JUDGE SPRITZER: All right, go ahead with
25 anything else you wanted to say on this contention.

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1 MS. CARPENTIER: Just a few things. Our
2 position regarding potassium iodide, plows, garages,
3 school buses, and so forth are in our papers. We
4 don't need to go into that right now.

5 I just have one remark to make regarding
6 the shadow issue that arose for the first time in the
7 reply, and that Mr. Keegan discussed here again today.
8 There are two different scenarios involved there.
9 One, as the applicant said, is evacuation by people
10 outside the evacuation zone; that is called the shadow
11 evacuation area, and it's explained in the emergency
12 plan in the application.

13 The worker scenario is an entirely
14 different scenario. Both are analyzed, but there is
15 no connection between the two; those are two different
16 issues, and both are in the application.

17 JUDGE CHARBENEAU: Let me go with the
18 question - I've gotten more confused I guess rather
19 than less. If we look at the update of the Fermi 2
20 plan during the period of construction, before there
21 is a Fermi 3 plan, is that update within the scope of
22 what we are hearing today? Or is that not within the
23 scope of this hearing?

24 MS. CARPENTIER: As I understood the
25 applicant, the update itself is in the emergency plan

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1 that was submitted with the COLA; is that correct?

2 MR. REPKA: Yes, and again let me clarify
3 that what was submitted with the COLA is a Fermi 3
4 plan that does in fact address an evacuation from
5 Fermi during the construction period. So - while
6 Fermi 2 is operating. But it is a Fermi 3 plan that
7 has been submitted.

8 Now we could hypothesize that some day it
9 will blend the two, and I expect that may very well
10 happen. But I think the COL, it would be based on
11 what has been submitted.

12 JUDGE CHARBENEAU: Okay, so the Fermi 3
13 plan includes the construction period as well as the
14 operational period?

15 MR. REPKA: Yes, because again that is a
16 scenario that specifically is modeled in there.

17 JUDGE CHARBENEAU: Okay, thank you.

18 MS. CARPENTIER: Any further questions?

19 JUDGE SPRITZER: All right. The
20 petitioners can have three minutes for a reply.

21 MR. KEEGAN: Thank you.

22 I do take issue with the characterization
23 of the shadow being at 10 miles out, my point being
24 that the shadow is going to occur within two miles,
25 and everybody locked behind the shadow. The shadow

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1 will occur within two miles because of the Fermi
2 workers construction and refueling.

3 So the shadow begins much sooner,
4 compounding and as they leave, cell phones notifying
5 people. So there would be fodder for your shadows.
6 So the time estimates, be it inclement, be it clear
7 weather, I don't think hold up.

8 The utility mentioned that these spent
9 fuel pool was beyond design basis. I would like to
10 remind the utility that they had a beyond design
11 basis, beyond maximum credible accident core melt of
12 the Fermi 1. So yes indeed accidents do happen.

13 According to the NRC 2001 report,
14 accidental pool drain downs, an estimated 25,000
15 latent fatal cancers, with people dying up to 500
16 miles downwind.

17 And as the plant ages and degrades with
18 age, the bathtub (phonetic) curve, that engineers are
19 so familiar with, the probability of an accident
20 certainly does increase.

21 The - regarding the potassium iodine, yes,
22 it's up to each state to implement it. The NRC says
23 states have the choice to do it. But bottom line is,
24 it doesn't get done, and bottom line is, people are
25 still at risk because they cannot protect their

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1 thyroid.

2 So the bioterrorism protection act of
3 2003, Federal public law, calls for potassium iodide
4 stockpiling and distribution for up to 20 miles out,
5 and I think this is the approved measure that should
6 be done.

7 Whether you have to do it or not, if you
8 are going to be good neighbors to the community you've
9 got to come in and do it.

10 Again, I guess I'm a bit confused - Fermi
11 3, the Fermi 2, the plan to make a plan, it seems
12 pretty ambiguous. And it seems to me that they are
13 making it up as they go as much throughout that we've
14 seen.

15 And I don't agree with the NRC staffers
16 that there is no connection between workers in their
17 evacuation and the general public evacuation. Again
18 these people are going to be locked east of the main
19 evacuation route, which would become clogged with
20 construction and refueling workers. So in the
21 interests of the community, we are asking for these
22 mitigating measures to be taken. And you know it's a
23 \$10 billion project. Probably increase twofold
24 potentially.

25 So spend the money. It would make for

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1 better evacuation, would make for better community
2 relations. And I think all parties would be
3 certified.

4 And I would advocate before the Public
5 Service Commission that you be compensated for that.

6 JUDGE SPRITZER: Very well, thank you.
7 I think we understand your position.

8 We are now in the home stretch. We will
9 move on to our last contention on which we will be
10 hearing argument today. This is Contention #13, which
11 basically challenges the adequacy of the
12 characterization of the need for additional power and
13 how that affects the need for the project and the
14 issue of whether adequate consideration has been given
15 to alternatives to constructing a new nuclear power
16 plant.

17 And I believe this is Mr. Lodge for the
18 petitioners.

19 MR. LODGE: Thank you. If the rest of
20 the country is in a recession, Michigan is in a
21 depression. That has become an almost daily report in
22 the media. But it is incredibly and painfully true.

23
24 This is the most iffy economic climate to
25 talk about making a long term commitment to a giant

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1 base load facility imaginable.

2 Since 2000 Michigan has lost well over a
3 quarter of a million industrial sector manufacturing
4 jobs. Nine days ago Moody's - and this is not
5 evidence, but I just want to point out the enormous -
6 the economic problems within DTE's generating area.
7 Moody's economy dot com, as it was reported in the
8 Detroit Free Press nine days ago, is forecasting that
9 about 260,000 jobs would be lost in Michigan between
10 the end of 2008 and mid-2010, a year from now roughly.

11 If Chrysler has to liquidate, the estimate
12 - and that as you probably know is still very much an
13 issue - the estimate goes up to 315,000 jobs lost. If
14 General Motors Corporation were to disappear and sell
15 off assets, which is an open issue, the estimate goes
16 up to 360,000 jobs lost between late 2008 and mid-
17 2010.

18 At the end of 2008, for comparison
19 purposes, Michigan had nearly 4.1 million jobs. So
20 the enormity of the impact, and especially the fact
21 that those types of factory endeavors have
22 historically been rather well paying, cannot be
23 minimized.

24 Within DTE's generating area, Chrysler has
25 three assembly, two engine, and one stamping plant,

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1 and their headquarters. Those are enormous power
2 users. They are all - I can't say for headquarters -
3 but the physical plants are closed right now because
4 of the bankruptcy.

5 As you know I am from Toledo, live in
6 Toledo. There are two Chrysler plants there. It is
7 a very spooky event to drive past them, because there
8 is nobody there. They've already been cut back to one
9 shift, down from three two years ago. Now there is no
10 one there except a few maintenance people. And it is
11 very uncertain as to how long this condition will
12 persist. And one thing that is becoming more and more
13 certain is that the future is going to be quite
14 different from the last - from the decline the last
15 three decades, but especially the last five to 10
16 years.

17 Having said that, I want to address the
18 questions of the board about meeting demand.

19 JUDGE SPRITZER: Or justification.

20 MR. LODGE: Pardon me, justification.

21 JUDGE SPRITZER: Apart from the increased
22 need for power, they may or may not be retiring some
23 of their existing whole generation -

24 MR. LODGE: Yes, first question, yes,
25 does the applicant intent to retire some of his coal-

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1 fired power generation facilities. First question.
2 The answer of course if yes. Data from the 2006 21st
3 century electric energy plan, which was a
4 gubernatorially appointed task force under the
5 auspices of the Michigan Public Service Commission,
6 reported in 2006 there were 30 plants scheduled to
7 close across the state, some of

8 JUDGE SPRITZER: which are in the Detroit
9 Edison generating jurisdiction. Two of those are gas-
10 steam turbine; the rest are coal. So 28 coal plants
11 statewide.

12 As I understand it, there remain four
13 proposed new power plants on the drawing boards for
14 Michigan. I don't believe any of them are in DTE's
15 jurisdiction.

16 What I have calculated from the available
17 data is that there are - that there will be
18 retirements between 2010 and 2023 of 1,281 megawatts
19 of coal-fired power generation capacity within DTE's
20 jurisdiction. Not included - pardon me - I'm sorry.
21 The total capacity of all the plants listed is 1,252
22 megawatts. DTE will be adding 394 megawatts of its
23 own renewable energy capacity by approximately 2015,
24 based upon the renewable portfolio standard that has
25 become law in the last year in Michigan.

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1 Moving on to the other questions, do all
2 of these coal plant terminations support an increased
3 need for base load electric power? Petitioners
4 question the need and uncertainty of power use over
5 the next decade. There is a real question of the need
6 for additional baseload power over the next few
7 decades. What is the projected overall effect of the
8 economic downturn on the projected need?

9 Number one, does this support an increased
10 need for baseload electric power? Possibly, but not
11 for quite some time, and indeed after 2018.

12 According to a filing earlier this year by
13 Detroit Edison in a Michigan Public Service - Michigan
14 case, it appears that peak electric load demand will
15 decline from 2018 at an annual rate of 1.3 percent.

16 This actually is a more dramatic figure of
17 decline that was quoted I believe by September by the
18 same forecast expert for DTE, which I think had said
19 it was going to be somewhere between .8 and 1 percent
20 a year for the next probably decade.

21 The Detroit Edison service area system
22 peak demand in 2007 was 12,229 megawatts. According
23 to another expert that the decline is caused among
24 other things by the economic downturn, but also by
25 energy efficiency improvements in such things as

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1 residential air conditioning; in such things as large
2 television sets, appliances are actually actively
3 contributing to gains in energy efficiency.

4 Using the data from the 21st century
5 report and assumed renewable energy capacity, GTE's
6 capacity in 2018 will be 12, 446 megawatts. However,
7 their forecast peak demand by their expert in 2018 is
8 10,856 megawatts. My calculation suggests that there
9 will be a margin of at least 850 megawatts or 7.8
10 percent in 2018.

11 And these are very conservative estimates
12 as to what renewable energy would accomplish, would
13 energy efficiencies will accomplish but energy
14 efficiencies will accomplish by way of increasing
15 demand.

16 But we anticipate, what we are contending
17 is that the decision to be made about whether or not
18 to build Fermi 3 is a decision about whether all of
19 the oxygen is going to be sucked out of the utility
20 room by one large baseload plant, or whether the
21 economy of Michigan will be allowed to be diversified
22 to include solar, photovoltaic and wind and all the
23 other variances of energy efficiency that can be
24 deployed in a much shorter timeframe, much more
25 cheaply and incrementally.

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1 The idea - I've seen searching through the
2 NRC regulations, and I don't really see a definition
3 of baseload. What I do urge the panel to consider is
4 the concept of baseload delivery; that if need for
5 additional electricity, if that even materializes, and
6 we don't know, and Detroit Edison doesn't know, and
7 won't know for literally several years to come what is
8 to happen after the bottom finally emerges in the
9 economic crisis; but what we believe is that the plant
10 is not needed in 2018; that a healthy genuine hard
11 look consideration in 21st century terms of the
12 alternative forms of energy is going to suggest that
13 nuclear is not - should not be the preferred
14 alternative under NEPA.

15 I hear constantly from utility people,
16 from apologists for the industry, that, well the sun
17 doesn't always shine, the wind doesn't always blow.
18 Anyone who is following the discussion about the so-
19 called smart grid knows that there will be very
20 sophisticated means of load shifting and load
21 management in the wider Great Plains windmill grid.
22 But in Michigan, which has abundant among other things
23 windpower potential, the smart grid won't lose a lot
24 of energy by transmitting over large distances. The
25 wind is always blowing somewhere. The sun may be

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1 shining only part of the day, but among other things
2 there are alternatives; there are very creative and
3 innovative technologies that aren't pie in the sky
4 things creating ice during the night and using it for
5 refrigeration and cooling during the way. The pump
6 storage at Luddington, Michigan, has existed for
7 years. The whole idea of energy conservation
8 practices that produce an abundance when needed during
9 the peak hours of the day.

10 And incidentally the sun usually is
11 shining on the hottest days, so the greatest solar
12 photovoltaic production is going to occur during your
13 days in July and August when you need air
14 conditioning.

15 I have a great deal more I could say. I'd
16 like to reserve whatever time I have left. I believe
17 the case, which has formerly suggested that sort of
18 historically whatever the applicant wants to do is
19 kind of their business and maybe we should think about
20 alternatives but not too seriously, that time is gone.
21 It's gone because the industry is seeking to have \$500
22 billion worth of federal loan guarantees. This is no
23 longer just a regulatory decision that provides the
24 basis for NEPA intrusion, if that is the appropriate
25 word; this is also a matter of whether or not a

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1 bailout mechanism has to be applied to help the
2 utilities.

3 So we believe that this is a very serious
4 for the first time in history public decision for this
5 board to make.

6 JUDGE SPRITZER: Well, I appreciate there
7 are a number of hotly debated issues on what direction
8 the country ought to take on energy policy. However
9 we have to tie this in to specific issues that we are
10 empowered to deal with in this particular proceeding.

11 What are the particular deficiencies that
12 you think are present - I take it we are talking
13 primarily about NEPA, so in the environmental report -
14 that you think we should hold a hearing about to get
15 at this particular set of concerns that you have?

16 MR. LODGE: Well, there are trends as I
17 say in energy efficiency and the deployment of
18 alternatives that have not been adequately addressed.

19 But one of the most striking things in the
20 environmental report is that when called upon to
21 compare nuclear, the option, with windpower, the
22 option, or with alternatives, it's an alignment of
23 nuclear versus wind, and they decide wind is not
24 blowing everywhere all the time, and you have to have
25 three times the number of windmills up to get the same

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1 generating effect; the same is done with solar; the
2 same is done with efficiency changes. And that is a
3 very serious glaring obvious problem. So the analysis
4 itself I think is very weak, very defective.

5 JUDGE SPRITZER: So what you would like
6 to have seen them done is what, come up with a
7 combination of various alternatives?

8 MR. LODGE: Well, we are talking about
9 statutorily, the new economic reality is a statutorily
10 mandated one. NEPA's procedure as you well know, and
11 the idea is to put the discussion out there for the
12 public to comment on. But what is really happening in
13 the utility marketplace, is that there is greater
14 regulation occurring, and there are actual mandates
15 for how much renewable energy has to become part of
16 the mix. There are actually prohibitions on large
17 centralized utilities expanding into - building new
18 generating capacity.

19 So the economic realities have not at all
20 been addressed; and they may be very difficult to
21 predict at this point. But the realities of the fact
22 that the data is getting dated in Michigan by the
23 week, by the month, is something that is very unique
24 and very problematic, and is right now pointing toward
25 no need to license a plant to commence the entire

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1 process of construction to be done by 2018.

2 It's moving away from us; it will continue
3 in all likelihood to move away from us.

4 JUDGE SPRITZER: I take it one of your
5 arguments, leaving aside the issue of alternatives for
6 the moment, but you have this argument in this
7 contention that as a general matter they have
8 exaggerated or overstated the need for another nuclear
9 plant. Is that a fair summary of your position?

10 MR. LODGE: Correct, yes.

11 JUDGE SPRITZER: One of the things the
12 staff has to consider in the environmental impact
13 statement - they can correct me if I'm wrong, but I
14 believe this is correct - they have to engage in a
15 general kind of cost-benefit determination for this
16 proposed new facility. And the commission has said in
17 general the benefit side of the equation is generally
18 determined by the need for power.

19 So apart from the issue of alternatives,
20 is that a point you are trying to emphasize in this
21 contention, that the need for this facility has been
22 exaggerated, and might not support a cost-benefit
23 determination in favor of the facility?

24 MR. LODGE: Yes, but that's not all. The
25 anticipated expense of building Fermi 3 has also been

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1 understated, in order to further, we believe, bias the
2 equation. It is simply not realistic to - the figures
3 they are using for construction figures are becoming
4 outdated very rapidly.

5 And I might point out in our initial
6 filing we pointed out, we discussed the fact, that the
7 turning point for solar photovoltaic energy is
8 dropping below the cost forever per installed kilowatt
9 of nuclear somewhere we believe in the year - well,
10 not us, Argenwalker Johnny (phonetic), one of the
11 people we consulted, in the year 2011 or 2012.

12 So in the very near term what you are
13 seeing is the economic viability of alternative
14 methods of generating electricity is - it's becoming
15 quite a reality. And the problem is that if you build
16 a large nuclear is 15 cents a kilowatt, efficiency is
17 3 cents a kilowatt hour, according to Peter Bradford
18 who was in town about two weeks ago.

19 The problem for the utility we believe is
20 justifying in some way the cost benefit and they are
21 having increasing problems doing that.

22 We don't believe it has been sufficiently
23 addressed within the context of the alternative
24 discussion and the need and demand discussion.

25 I realize that this panel is not a state

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1 regulatory body, and that you are not required to make
2 - to call strikes and balls on specific economic plans
3 that utilities have. But we think that the very
4 serious much harder look than the softball look that
5 appears in the environmental report is warranted.

6 JUDGE SPRITZER: All right, let's move on
7 and hear from the applicant on this, Mr. Repka.

8 MR. REPKA: Okay, thank you.

9 This contention as pled asserts that the
10 identification, characterization and analysis of need,
11 alternatives, and the mix of conservation and
12 renewables is inadequate and violates NEPA. So it
13 addresses the proposed cost of the facility; the need
14 for the facility; alternatives; and conservation and
15 renewables. And we have addressed each one of those
16 in our written response, and I don't want to go
17 through all the details. But we think that the ER has
18 addressed all of those components in a way that is
19 reasonable and justifiable, and the specific
20 contention really doesn't provide adequate support to
21 show that there is a genuine dispute in the context of
22 NEPA.

23 JUDGE SPRITZER: This may be more of a
24 question for the staff, but I will run it by you first
25 anyway. I mean, while years ago in my past life I

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1 used to defend the Federal Aviation Administration
2 which was constantly making projections of the demand
3 for aviation, and of course they are constantly
4 changing because the economy is constantly changing;
5 costs of various alternative means of transportation
6 is changing.

7 At what point, it seems to me on the one
8 hand I can understand where petitioners are coming
9 from here. There has been obviously a rather
10 significant change in the economy. But at what point
11 do you say enough is enough; we are going to make a
12 projection here, and it's the best we can make at this
13 point, because if we keep going back over and over
14 again we'll never get it right. Everything is going
15 to change over time.

16 MR. REPKA: Yes, I think that is exactly
17 the context. And I was going to address need for
18 power in that context specifically.

19 Because this board in the context of NRC
20 authority, in the context of NEPA, does not have to
21 decide the question of when or even if this plant will
22 be built. That will ultimately be a decision made by
23 the Michigan Public Service Commission.

24 Now what Detroit Edison has done based on
25 the Michigan 21st century electric plan, which is a

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1 long term study in combination with its own integrated
2 resource planning, has taken a long term projection of
3 energy needs going forward, and that is about a 20-
4 year look, as opposed to something that is focused on
5 the economy of today or even next year.

6 The long term planning process includes
7 projections for the economic situation; but it also
8 includes other things. Number one, it includes the
9 projected lifecycle of other baseload power plants,
10 and the board has alluded to that in their questions,
11 and I'll get back to that. But that is something
12 that, there are planned retirements that go into that.

13 There are other factors as well, such as
14 the projections about energy efficiency and demand
15 side management; projections regarding the ability to
16 purchase power from outside the jurisdiction. And I
17 think there are some assumptions made that the
18 electric markets will be tighter, and it will be less
19 - a particular driver is that power may be less
20 available in the future.

21 But the point is it's a long term plan,
22 and it focuses on much more than the economy of today.
23 Now what the economy of today does is, it does have an
24 effect on demand today. If it's not meeting
25 projections, as originally planned, that could affect

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1 the timing of the project and not ultimately the need
2 of the project. I don't think there is any question
3 that, given everything in the long term analysis, at
4 some point there will be a requirement for new
5 baseload generation, and the ultimate timing of the
6 project is one that is very much subject to the
7 Michigan state process.

8 The company will need to go to the
9 Michigan Public Service Commission and file for the
10 certificate of public necessity or certificate of
11 need, and ultimately the public service commission in
12 that context will look at what is the best choice for
13 long term baseload electric generation, and what is in
14 the best interests of the Michigan ratepayer.

15 So that is a determination we don't need
16 to make today, but again, it will be based on long
17 term projections, what we would maintain in the NRC
18 context and through the NEPA evaluation is that
19 ultimately there will be a need for power based on the
20 factors shown in that analysis; a need for baseload
21 generation. And that allows, in pursuing the license
22 with the NRC, certainly allows the company to move
23 forward with the project, preserve the option of
24 nuclear, these nuclear projects are not one that can
25 be developed and licensed and built overnight, so it's

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1 one we have to move forward to preserve that as an
2 option.

3 And I think in that context, the analysis
4 that is presented is fully adequate to satisfy the
5 NRC's needs for a NEPA determination.

6 With respect to some of the specific
7 questions on need, the board asked about retiring
8 coal-fired power generation facilities. Just to give
9 a little more specificity to that, we do anticipate
10 that there will be some retirements. In Tables 8.3-
11 11, and 8.3-12 of the ER show the specific estimate we
12 made of retirement dates, based on best estimates of
13 operating life of those units. In other words, that
14 is not based on, we are going to bring Fermi 3 online,
15 and therefore we can retire those units. It's the
16 other way around. It's that it's our best estimate
17 dates for how long those plants will operate.

18 And that certainly supports the need for
19 Fermi 3.

20 The board also asks that the petitioner
21 question the need and uncertainty, and power over the
22 next decade. Is there a real question of the need for
23 additional baseload over the next few decades. And
24 again my answer to that is no, there is no question
25 over the next few decades there will be a need for new

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1 baseload generation. There may be uncertainty
2 regarding the timing of the need, and certainly the
3 current economic environment and the state of the auto
4 industry, has an effect on the timing. But that
5 doesn't affect the long term need.

6 Again uncertainty leads us to include - to
7 preserve the option of Fermi 3 with the precise timing
8 to be determined by the state public service
9 commission.

10 With respect to the other issues, Mr.
11 Lodge here this afternoon again mentioned that he
12 finds inadequate the discussion of alternatives. We
13 have addressed that in our filing, but just to point
14 out that the ER does consider various combinations of
15 alternatives involving renewable fuels. That is cited
16 in our written response, ER section 9.2.2.4.1. We
17 said there for all of the scenarios examined it was
18 concluded that baseload generation from sources such
19 as natural gas, coal and/or nuclear would be required
20 in addition to renewables and energy efficiency in
21 order to meet the projected demands.

22 So again that is the conclusion in that
23 analysis, and I don't know that there has been
24 anything presented in any factual or specific way that
25 would challenge that conclusion.

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1 The board's last question was what is the
2 projected overall effect if the economic downturn on
3 the projected need for power. Again, the economic
4 downturn could delay the need for replacement baseload
5 electric power; it doesn't eliminate the need. And I
6 think that the need originally established in the
7 Michigan 21st century electric plan was showing
8 something like 2015, 2017 for new baseload. I suspect
9 that that has been pushed back by a couple of years,
10 but I think that the precise dates on that would be
11 something that the company would present in its rate
12 cases to the PSC. So nonquantitatively I would expect
13 that there would be some effect, but again it doesn't
14 eliminate the need.

15 I think unless the board has any other
16 questions I have hit what I think I wanted to address.

17 JUDGE SPRITZER: All right, we will hear
18 from the staff. Ms. Carpentier.

19 MS. CARPENTIER: For the most part our
20 position on this contention is in our papers. There
21 are a few things I'd like to mention now.

22 First of all with regard to retirements of
23 facilities, I was prepared to refer the board to the
24 same tables, beginning at page 8-58 in the ER, they
25 estimate a cumulative loss of 3,755 megawatts of

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1 capacity through 2025, due to retirement of existing
2 facilities. And we believe that this would establish
3 a need for power irrespective of the demand - which of
4 the demand growth projections in the 21st century
5 electric energy plan turn out to be the case based on
6 economic conditions.

7 JUDGE SPRITZER: What does the NRC staff
8 do with respect to projected economic conditions? In
9 other words do you just generally defer to whatever
10 the state has in terms of its current projections or
11 plans? Or do you do your own analysis? Does the
12 staff, I should say, do its own analysis?

13 MS. CARPENTIER: With respect to - well,
14 I'd like to consult with Ms. Simon for a moment about
15 this. She drafted this bit of the contention.

16 (Pause)

17 MS. CARPENTIER: The staff is not bounded
18 by the ER. We might look at other information in the
19 EIS. But we take it as a point of departure.

20 JUDGE SPRITZER: Am I correct, and I said
21 earlier that I think Mr. Lodge, apart from the issue
22 of alternatives, the other way that it seemed to me
23 that the issue of the need for power comes into the
24 environmental analysis is in the balancing of costs
25 and benefits, and the benefit is usually defined at

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1 least fairly heavily in terms of meeting a need for
2 power.

3 MS. CARPENTIER: Yes, it is.

4 Another issue I'd like to raise, it has
5 come up several times now already, concerning the
6 petitioner's allegation that the cost of the facility
7 is low balled.

8 In their initial contention they refer to
9 an estimate that appeared in a rate case before the
10 Michigan Public Service Commission. It is not the
11 estimate that is in the application under
12 consideration here. The estimates in the application
13 are 3,500 to 4,500 dollars per kilowatt electric, and
14 that's at application part one, pages six and seven.

15 The petitioner's original contention
16 quotes an expert who gives estimates in that range as
17 well, and we don't think there is any real dispute
18 there.

19 That part of the contention, there seems
20 to be agreement.

21 JUDGE SPRITZER: One more question on the
22 issue of the need for power and how it relates to
23 NEPA, my general understanding of the case law under
24 NEPA, federal case law at least, not necessarily NRC,
25 is that the purpose and need for the project is

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1 generally defined by the person applying for the
2 license from a federal agency, whether it happens to
3 be the NRC or another. And if they have kind of a
4 poorly thought out purpose, it's not really our role
5 to tell them you've got the wrong purpose here. You
6 really should be planning to do something smaller or
7 different from what you are doing. But I could be
8 wrong about that with respect to the NRC. So what is
9 your position on that?

10 MS. CARPENTIER: For the most part we
11 take into account the applicant's stated purpose. We
12 do look to make sure that that stated purpose is not
13 driven so narrow that nothing other than that proposed
14 alternative would do. But we do otherwise take the
15 applicant's stated purpose.

16 JUDGE SPRITZER: In terms of satisfying
17 the need for baseload power, that doesn't strike me
18 necessarily as unduly narrow.

19 MS. CARPENTIER: That has not been how
20 it's been considered in previous cases.

21 JUDGE SPRITZER: They didn't limit
22 themselves, did they, to one particular site, and say
23 we can only build this here in Monroe County?

24 MS. CARPENTIER: No, and they did not
25 limit themselves to nuclear; they considered other

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1 options a well.

2 JUDGE SPRITZER: Okay. Did you have
3 anything else you wanted to say about this contention?

4 MS. CARPENTIER: Only if you have other
5 questions.

6 JUDGE SPRITZER: All right, we will give
7 the petitioners five minutes to reply on that.

8 MR. LODGE: Thank you.

9 Amory Lovins of the Rocky Mountain
10 Institute reports that efficiency is seven to ten
11 times more cost effective than new nuclear reactors.

12 Standard & Poor stated in its most recent
13 2008 assessment that there is no way currently of
14 knowing the cost of construction of new nuclear power
15 plants because of a lot of factors related to the
16 availability of workforce, of building materials, of
17 reactor components, et cetera, which will be strewn
18 over the next decade or so if it even happens.

19 My question is this: helpfully at page 78
20 of their answer, DTE pointed out, quote, to the
21 contrary, the application discusses potential
22 electricity demand and peak demand reductions from
23 energy efficiency programming, load management,
24 building codes and appliance standards. See ER
25 section 8.2.2.2, parens, concluding that an aggressive

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1 program could reduce the projected growth rate in
2 Michigan electric energy use by more than 50 percent
3 over a 10-year period. See also tables 8.2-9 and 8.2-
4 10.

5 Where is the cost-benefit analysis for
6 that aggressive program that could reduce growth 50
7 percent over the decade between now and the supposed
8 completion and availability for use of a Fermi 3?

9 Respectfully, this is - alternatives, the
10 case law says, the discussion of alternatives is the
11 heart of a NEPA statement. The NEPA statement needs
12 to have a very hard look within it - this is an
13 enormous turning point economically - the hard reality
14 is what has to be the hard look. The hard reality of
15 the plummeting cost of options that back when I was
16 nuclear litigating in the '70s we were told were way
17 over the horizon, were pie in the sky, were maybe
18 going to be nice to have around someday.

19 They are here. The problem is that the
20 utility blithely continues on with an even larger
21 scale baseload facility than that earlier generation
22 of nuclear power plants.

23 That isn't discussed in a meaningful cost-
24 benefit type of fashion within the ER.

25 The alternatives analysis is very weak.

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1 It must be considerably shored up so that the public
2 can meaningfully understand and participate.

3 JUDGE SPRITZER: Let me ask you the
4 question I posed to Mr. Repka. Maybe I'll go back and
5 ask the staff too.

6 At what point do we say - we've got to do
7 some sort of projection of future demand. Is there a
8 point when we can say, okay, we are going to go with
9 this projection.

10 MR. LODGE: Go with this snapshot.

11 JUDGE SPRITZER: And the fact, we know
12 things are going to change over time, but we can't
13 just keep going back and changing the projections
14 every few years, or every year or two, because we will
15 always be changing. At some point we've got to make
16 a decision.

17 MR. LODGE: Well, if you accept the
18 utility's projected time period for construction, and
19 Mr. Repka's observation that maybe things are pushed
20 back even now to 2020, our contention is that that
21 decision doesn't have to be made yet, and there is a
22 very important reason it shouldn't be made, the
23 licensing determination shouldn't be made at this
24 point.

25 It is because the bottom in Michigan has

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1 not been hit yet. It's going to be a very interesting
2 summer with Chrysler in bankruptcy, General Motors
3 trying to skirt it, and every automaker around the
4 globe trying to make some money doing what they used
5 to do.

6 And that is only the beginning of the
7 economic troubles, both nationally but certainly
8 within the Michigan region and larger region.

9 I think that the snapshot possibly should
10 be deferred. The snapshot on which the board would
11 rely needs to be deferred down the road a year, two
12 years, three years; and I think that the declining
13 demand picture is going to possibly continue to
14 decline even further. It's a very dramatic change
15 from last fall to this late winter, early spring
16 period in DTE's own forecast. That is my response.
17 Thank you.

18 JUDGE SPRITZER: Let me ask the same
19 question of the staff. If there any guidance
20 procedure that the staff typically follows in terms of
21 how much uncertainty is tolerable in an economic
22 forecast. Or what would cause you to go back and redo
23 an economic forecast? Anything that could help us
24 understand when you can in effect say, all right,
25 we've done a forecast; it may not be perfect, but we

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1 are going to go with this one instead of revising it
2 every couple of years, or every time there is a change
3 in the economy.

4 MS. CARPENTIER: We're not aware of any
5 particular guidance on the issue. There is case law
6 saying a two-year difference in projected demand for
7 power is not statistically meaningful; it's not
8 material. And our test would be materiality; does it
9 materially alter when power would be demand.

10 JUDGE SPRITZER: Do you happen to know
11 that case here at the moment?

12 MS. CARPENTIER: That's Niagara Mohawk.
13 It's Nine Mile Point, unit two. It's the appeals
14 board, lab 264 1 NRC 347, it's a 1975 case.

15 JUDGE SPRITZER: What was the NRC cite
16 again?

17 MS. CARPENTIER: 1 NRC 347.

18 JUDGE SPRITZER: Okay, go ahead.

19 MS. CARPENTIER: Did you have any other
20 questions?

21 JUDGE SPRITZER: No, I don't think we do.
22 Petitioners have anything further on this contention?

23 MR. LODGE: May I have just one moment?
24 I wanted to see if I could find that decision.

25 (Pause)

1 MS. CARPENTIER: While he's searching I
2 could refer the board to page 96 in our answer, where
3 this is discussed at some length.

4 JUDGE SPRITZER: Okay, that'd be great,
5 thank you.

6 MR. REPKA: If I may, Judge Spritzer?

7 JUDGE SPRITZER: Sure.

8 MR. REPKA: I would point out in our
9 written reply we did include on page 77 a couple of
10 cites that I believe are relevant as well to the
11 effect that the NRC's longstanding approach to
12 electric power demand forecasting has emphasized
13 historical conservative planning to ensure electricity
14 generating capacity will be available to meet
15 reasonably expected needs. And I think that is to my
16 point that in the face of uncertainty the best option
17 is to preserve the option.

18 JUDGE SPRITZER: Okay, thank you.

19 MR. REPKA: That cites a Duke Power case as
20 well as Carolina Power & Light case.

21 MR. LODGE: My response - thank you for
22 the brief - is that the changes in the near term, mid-
23 term, I don't know what you would call the next decade
24 or so, are rather without precedent, and that it
25 certainly would seem to be an exception to the

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1 Niagara-Mohawk rule. The economic shifts are
2 dramatic. We are as a society going to not understand
3 what has happened, and what is happening right now,
4 for some time to come. And, that is certainly true in
5 the electricity and consumption side of the utility
6 industry. Thank you.

7 JUDGE SPRITZER: Very good. Well, thank you
8 all for your participation today. I hope, for the
9 members of the public that are here, this has been
10 interesting and informative, at least to some extent.
11 And, we have met at least one of our goals; we have
12 finished approximately 18 minutes earlier than we
13 planned to. In terms of a decision, needless to say,
14 we will not be issuing one here today or tomorrow,
15 probably not for another month at least, but we will
16 try to get something out, at least by the end of June.
17 And, again, thank you all for your participation
18 today.

19 (Whereupon, the proceedings went off the
20 record at 3:44 p.m.)
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22
23
24
25

CERTIFICATE

This is to certify that the attached proceedings
before the United States Nuclear Regulatory Commission
in the matter of: Detroit Edison

Name of Proceeding: License Application Hearing

Docket Number: 52-033-COL;

ASLB No. 09-880-05-COL-BD01

Location: Monroe, Michigan

were held as herein appears, and that this is the
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Official Reporter
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