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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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ATOMIC SAFETY AND LICENSING BOARD PANEL

ORAL ARGUMENTS

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IN THE MATTER OF:		Docket No. 50-271-LR
ENTERGY NUCLEAR VERMONT		
YANKEE, LLC, and ENTERGY		
NUCLEAR OPERATIONS, INC.		
(Vermont Yankee Nuclear		
Power Station)		

Wednesday,

August 2, 2006

Brattleboro, Vermont

The above-entitled matter came on for oral argument, pursuant to notice, at 8:00 a.m., Alex S. Karlin, Chair, presiding.

BEFORE:

ALEX S. KARLIN, Chair

THOMAS S. ELLEMAN, Administrative Judge

RICHARD E. WARDWELL, Administrative Judge

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Contention No. 3	329
Contention No. 4	367
Contention No. 5	406
Contention No.	433

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

8:32 a.m.

1
2
3 CHAIR KARLIN: Good morning. I want to go
4 on the record. This is the Atomic Safety and
5 Licensing Board hearing in the Vermont Yankee license
6 renewal proceeding. We're reconvening here on August
7 2nd in the Brattleboro Union High School multipurpose
8 room, and I welcome everyone for the continuation of
9 this matter. We won't go through the full
10 introductions of yesterday. I think everyone--well,
11 just for the record, we may want to introduce
12 ourselves.

13 To my right is Dr. Wardwell. To my left
14 is Dr. Elleman. And could the parties, for the
15 record, please introduce themselves, starting with Mr.
16 Lewis, or Entergy, please.

17 MR. TRAVIESO-DIAZ: Yes. My name is
18 Matias Travieso-Diaz. I'm a partner at Pillsbury
19 Winston Shaw Pittman. We're counsel. With me is my
20 partner, David Lewis. We are counsel to Entergy.

21 MR. HAMRICK: Good morning. My name is
22 Steven Hamrick, counsel for the NRC staff. With me is
23 Mitzi Young, also counsel for the NRC staff.

24 MR. SHEMS: Good morning, Your Honors. My
25 name is Ron Shems with the law firm of Shems, Dunkiel

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1 Kassel & Sounders up in Burlington. I'm with Karen
2 Tyler, who I work with, and we represent the New
3 England Coalition.

4 CHAIR KARLIN: Okay. Thanks.

5 MS. HOFFMAN: Sara Hoffman for the
6 Department of Public Service. I'm the director for
7 Public Advocacy. With me today is the state nuclear
8 engineer, William Sherman.

9 CHAIR KARLIN: Great; good morning. I'm
10 going to ask everyone to try to stay very close to the
11 mikes when we're talking, and I'll try to do the same.
12 Emily Peyton is our sound engineer over here, and
13 she's I think upgraded some of the mikes, and we may
14 be in a little bit better shape here today.

15 Okay. On the agenda today are the
16 remaining contentions presented by New England
17 Coalition, and so I think we would start with
18 Contention Number 3, their Contention Number Three,
19 dealing with I guess steam dryer issues, if I
20 understand it. You will have 20 minutes I guess for
21 your timeframe. How do you want to allocate that
22 time?

23 MS. TYLER: I'd like to reserve half for
24 rebuttal. Ten minutes.

25 CHAIR KARLIN: Half. All right. Fine.

1 Great. All right. Please proceed.

2 MS. TYLER: Okay. Contention three
3 concerns the adequacy of Entergy's proposed plan to
4 monitor and manage aging of the steam dryer during the
5 renewed license term. This is particularly an issue
6 because of the added stress on the steam dryer due to
7 the extended power upgrade that's been approved with
8 the plan.

9 NEC's technical expert on this issue has
10 particularly taken issue with Entergy's reliance on
11 two computer models, the computational fluid dynamic
12 model and the acoustic circuit model.

13 It's his opinion that an adequate program
14 involving the use of these models would also need to
15 involve a visual inspection and measurement program.

16 This issue was considered during the EPU,
17 Extended Power Upgrade proceedings, and during those
18 proceedings, NRC staff appears to have agreed that
19 predictions based on these models were uncertain, and
20 that it was necessary to confirm them with a visual
21 inspection and measurement program.

22 Entergy's response to this contention--

23 CHAIR KARLIN: Do you have a site for
24 that, that the staff agreed?

25 MS. TYLER: Actually, the--

1 CHAIR KARLIN: Are you referring to the
2 ACRS with the word?

3 MS. TYLER: Yes. Entergy's answer to our
4 contention actually included citations and quotes from
5 the relevant materials in which the ACRS--

6 CHAIR KARLIN: Okay. You're referring to
7 the ACRS report--

8 MS. TYLER: Yes.

9 CHAIR KARLIN: --as agreeing, you're
10 saying?

11 MS. TYLER: Yes. Essentially, yes. That
12 these models were significantly uncertain, it was
13 necessary to confirm with a visual inspection.

14 Entergy's response to this concern appears
15 to be that due to that concern raised in the EPA
16 proceedings, Entergy committed to an enhanced and
17 additional program of inspection during the remaining
18 years of its license term, that does involve a program
19 of visual inspection and monitoring.

20 I'm frankly not entirely clear as to why
21 this is considered relevant to the period of extended
22 operations, and that this program, on its face, is
23 finite, and will terminate, as it appears, within the
24 next few years. It appears that Entergy's current
25 position is that if it establishes the integrity of

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1 the steam dryer over the next few years, based on this
2 EPU inspection program, that that should be adequate
3 to ensure us of its integrity over the next 20 years.
4 And it's the position of NEC and its technical expert
5 on this issue, that that is not the case, that's not
6 a reasonable position.

7 JUDGE WARDWELL: All you're asking for is
8 the same types of surveillance and inspections that
9 are being done for the power uprate period to continue
10 during the next 20 years of operation?

11 MS. TYLER: We haven't actually made a
12 specific proposal as to what would be sufficient.
13 However, it's clearly the case that a visual
14 inspection and measurement program was considered
15 necessary in the power upgrade proceedings. We think
16 it's necessary. At what interval or to what extent,
17 we haven't gotten to that level of detail.

18 JUDGE WARDWELL: Let me rephrase it. If
19 I understand it, then, that you feel that at least for
20 some period of time, and in some frequency, very
21 similar or analogous surveillance and visual
22 inspections, and actual measurements should be made--

23 MS. TYLER: Yes.

24 JUDGE WARDWELL: --as part of the license
25 renewal?

1 MS. TYLER: Yes. I think that's
2 accurate.

3 JUDGE WARDWELL: Do you agree that the
4 program itself was in accordance with NUREG 1801, and
5 the GESIL 644, and the guidance for BWRRP139? They
6 alluded that you didn't disagree that it wasn't done
7 in that manner but that you just want to see these
8 inspections carried forward.

9 MS. TYLER: We actually weren't able to
10 review all of those documents, they're proprietary,
11 and many of them weren't available over the public
12 document system. I think that our expert relied
13 substantially on his review of the documents produced
14 in the EPU proceedings and in the representation of
15 Entergy's program that was put forth in that
16 proceeding.

17 JUDGE WARDWELL: Thank you.

18 CHAIR KARLIN: Question. On Dr.
19 Hopenfeld's declaration, paragraph 19, I think it's
20 the staff who points out, at page 13, footnote seven,
21 they allege that--this is the statement.

22 "Entergy's proposed monitoring techniques
23 are not adequate to detect crack propagation and
24 growth because they are not based on actual
25 measurements. Entergy relies on unproven computer

1 models and moisture."

2 And then there's a citation by Dr.
3 Hopenfeld and some pages on the, I believe ACRS
4 report, and it's stated by the staff that none of
5 those pages that are cited there support the
6 proposition that is stated by Dr. Hopenfeld.

7 I'm going to ask them that. Or they had
8 pointed that out. What's your response to that?

9 MS. TYLER: Actually, unfortunately I
10 don't have the ACRS report with me, so I can't look at
11 that and confirm--

12 CHAIR KARLIN: Well, I mean, this was
13 something they put into their answer, so I was hoping
14 you'd be prepared to respond to it. I didn't just
15 make this up.

16 MS. TYLER: Well, I think what I would do
17 is point you to the section of the ACRS report, that
18 Entergy itself quoted in its answer, which I think
19 clearly stated the opinion of whomever wrote that
20 report, that these models were sufficiently uncertain,
21 that a visual inspection and measurement program was
22 necessary, and confirmation.

23 CHAIR KARLIN: Well, but I thought what
24 the upshot was that the ACRS approved the monitoring
25 plan. They originally had some questions about it and

1 then they later approved it.

2 MS. TYLER: They did approve it, with this
3 visual inspection and monitoring supplement. And
4 that's our position, that that's necessary, it was
5 found to be necessary during the EPU proceeding and
6 it's necessary during the extended term, and I would
7 ask Entergy's attorneys whether Entergy has committed
8 to some continuation of that program during the
9 extended term because we have not been able to confirm
10 that they have.

11 CHAIR KARLIN: Well, are you referring to
12 the statement by the ACRS, that the state of
13 validation of these methods is poor?

14 MS. TYLER: I think it's actually the
15 quote on page 29 of Entergy's answer. They say,
16 "Although significant uncertainty exists regarding the
17 licensee's method for calculating specific stress
18 values on the VYNTS steam dryer, from its CFD and ACM
19 analyses, the licensee's current MSL instrument
20 suggests minimal excitation of the pressure frequency
21 spectra in the MSLs at CLTP conditions. As a result,
22 the staff finds that the licensee has demonstrated
23 that the flow-induced stress imposed in the VYNTS
24 steam dryer, CLTP conditions, is within the fatigue
25 stress limits provided in the ANSE code."

1 Okay. So that's all well and good.

2 But then the next sentence says, "However,
3 the available margin to those stress limits is not
4 readily verifiable. Therefore, the NRC staff
5 considers the licensee's planned action specified in
6 supplement 33 of its EPU request, and included in the
7 proposed license condition in supplement 36 to be an
8 important part of the licensee's effort to provide
9 confidence that the structural integrity of the steam
10 dryer will be maintained during EPU operation."

11 CHAIR KARLIN: Okay. Does that
12 demonstrate that the current licensing basis is
13 adequate to handle this, because this would be part of
14 the current licensing basis if it's upheld.

15 MS. TYLER: It is part of the current
16 licensing basis but the conditions that they're
17 referring to are finite. Basically, they committed to
18 operational surveillance and visual inspection during
19 three scheduled refueling outages, and then continuing
20 until completion of a wonderful operating cycle, EPU,
21 and for additional cycles until no new flaws or flaw
22 growth is identified in visual inspections.

23 So that implies to me that at some point
24 everything looks good and they stopped doing this,
25 which may have been fine over the next six years, but

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1 there's no indication that this visual inspection
2 program continues nighty the new term.

3 CHAIR KARLIN: All right. Okay.

4 JUDGE WARDWELL: But you still have that
5 phrase, no new flaws or flaw growth. So that's a
6 modifier on this, and that criteria has to be reached
7 before the termination of this program.

8 Why isn't that sufficient? If there's no
9 growth and no flaws through the couple cycles, what
10 says it should be more than that?

11 MS. TYLER: Well, I think that appears to
12 be their position, that if during the next couple
13 years it's determined during one of these inspections
14 that there are no new cracks, cracks don't appear to
15 have grown, that we should then be confident that for
16 the next 20 years the steam dryer will be fine.

17 And our technical expert thinks that's not
18 reasonable.

19 JUDGE ELLEMAN: On a point similar to
20 Judge Karlin's, you express concern that the models to
21 be employed do not measure crack initiation and
22 propagation, and my understanding of doing this is
23 that that's a fairly sophisticated thing to do.

24 Do you know that there are industry-
25 accepted techniques for making measurements that are

1 based on these two parameters to measure?

2 MR. RUND: Time.

3 MS. TYLER: I personally don't know but
4 our technical expert has said yes.

5 JUDGE ELLEMAN: That they are available--

6 MS. TYLER: He believes that there are.

7 JUDGE ELLEMAN: --and there are things
8 that can be employed?

9 MS. TYLER: He's just indicated that yes,
10 he does think so. He says they're not necessarily
11 commercially available but he thinks there are methods
12 of doing this.

13 CHAIR KARLIN: All right. Thank you. Any
14 more questions at this time? No.

15 Mr. Travieso-Diaz, 15 minutes.

16 MR. TRAVIESO-DIAZ: Yes. Good morning
17 again.

18 CHAIR KARLIN: Good morning.

19 MR. TRAVIESO-DIAZ: I feel compelled,
20 before I go into my presentation, to correct a
21 misstatement by counsel for NEC.

22 They admit that their expert, Mr.
23 Hopenfeld, did not look at General Electric service in
24 information letter 644 RA1, because it was
25 proprietary. Not only is it not proprietary but it is

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1 readily available in ALUMS. The ALUMS number is
2 ML050120032. And I'm not going to refer to the well-
3 worn phrase of iron clad obligation, but in this case
4 it so happens that the aging management plan for the
5 steam dryer refers and adopts and incorporates this
6 document.

7 Without reviewing the document, they
8 couldn't know what Entergy proposes to do. You will
9 see in a moment how important that is.

10 JUDGE WARDWELL: Is BWRRVLP139 also
11 readily available?

12 MR. TRAVIESO-DIAZ: I'm not sure but that
13 is not accepted yet. So you see, the commitment is
14 the rule of examining it, once it's available, and
15 determine whether program should be modified in
16 accordance with what it says. So this is even more
17 significant here, because not only is a commitment in
18 the age management plan, but when they modified the
19 license, the operating license for Vermont Yankee
20 during the uprate, there is an express condition in
21 the license which I will read to you.

22 It is M.2.3. Section M.2.e. That says--I
23 am going to read. "Entergy Nuclear Operations, Inc.
24 shall revise their steam dryer monitoring plan to
25 reflect long-term monitoring or plant parameters

1 potentially indicative of steam dryer failure; to
2 reflect consistency with the facilities steam dryer
3 inspection program with General Electric service
4 information letter 644, Reg 1, and to identify the NRC
5 program manager for the facility as the point of
6 contact for providing SDMP information during power
7 ascension."

8 CHAIR KARLIN: Is that a condition of the
9 current license? Is that what you're saying?

10 MR. TRAVIESO-DIAZ: Yes, is a condition
11 for the license, and unless it gets removed when the
12 license gets extended, if it does, it's there for all
13 time. So not only is there a commitment to confirm to
14 SIL-644 in the aging management program, but it's a
15 requirement of the license that he do so.

16 CHAIR KARLIN: Is it a demonstration that
17 it will be achieved? Isn't that what the reg
18 requires, not just a promise or even a license
19 condition, but a demonstration that aging will be
20 managed? We have the problem of how much specificity
21 is needed in order to be a demonstration versus a
22 promise.

23 MR. TRAVIESO-DIAZ: Absolutely. this is
24 not a promise. Because SIL-644, it tells you what you
25 have to do, and Entergy is committed to doing this.

1 CHAIR KARLIN: Okay.

2 MR. TRAVIESO-DIAZ: Now why is this
3 relevant to the answer that we gave? Because it's
4 exactly a continuation for the rest of the licensed
5 life of the plant to the program that it was
6 incorporated and instituted during power ascension and
7 monitoring, which has two prongs. And I'm going to
8 read you what 644 requires, so that the record is
9 clear.

10 But you have to do two things. Have
11 inspections during very refueling outage for a period
12 of time in a manner that is directed by and controlled
13 and specified by 644, and you have to continuously
14 monitor parameters that could indicate to you that
15 have you a steam dryer problem.

16 The main parameter is the moisture
17 contains all the steam that leaves the--

18 CHAIR KARLIN: Let me ask this. As I
19 understand, part of the dispute here is that they
20 start off alleging that it's--excuse me--these two
21 models were not properly benchmarked. Isn't that part
22 of this contention? And you respond and say, well, we
23 don't think that's true, and, oh, by the way, in
24 addition to the models, we're doing some monitoring
25 and we're doing some inspection, and that's not the

1 only thing we're doing to address this issue.

2 Is that the gist of the--

3 MR. TRAVIESO-DIAZ: No; it's far more than
4 that.

5 CHAIR KARLIN: No. Okay.

6 MR. TRAVIESO-DIAZ: Those two models were
7 important during the process of EPU because they
8 wanted to establish what the stress levels on the
9 dryer were.

10 The aging management program does not
11 depend, does not cite, does not refer, and does not
12 use those programs. So all that Mr. Hopenfeld is
13 bringing up may be of historical interest to you,
14 after all he has tried to have a steam dryer
15 contention now four times, but it is not relevant
16 whatsoever, has no relevance whatsoever to the aging
17 management plan.

18 SIL does not depend on computation. SIL
19 depends on two things--inspection and measurement. So
20 whatever they may want to say--and I can address those
21 programs if you want but I think it's totally
22 irrelevant because that's not what the aging
23 management program is all about.

24 JUDGE WARDWELL: Beyond the first two
25 operating cycles, if in fact you don't observe any

1 flaws or flaw growth, will you not in fact terminate
2 the visual inspections?

3 MR. TRAVIESO-DIAZ: No, and let me just--

4
5 JUDGE WARDWELL: Explain why.

6 MR. TRAVIESO-DIAZ: Let me tell you what
7 SIL-644 requires you to do. First, with respect to
8 inspection, it has a five-prong approach. The first
9 prong was something that's already been done.

10 Perform a baseline visual inspection prior
11 to initiation of the--

12 JUDGE WARDWELL: And in this outlined in
13 644?

14 MR. TRAVIESO-DIAZ: Yes; it is on page
15 seven. Okay? So first you do a baseline visual,
16 which has already been done. Then repeat the visual
17 inspection of all susceptible locations of the steam
18 dryer during each subsequent refueling outage.

19 Continue inspections at each refueling
20 outage until at least two full operating cycles and
21 the final operated power level has been achieved.
22 After two full operating cycles at the final power
23 level, repeat the visual inspection of all susceptible
24 locations of the steam dryer for at least once every
25 two refueling outages.

1 Then the fifth prong is once structural
2 integrity of any repairs and modifications has been
3 demonstrated and the flaws left at this have been
4 shown to have stabilized at the final operated power
5 level, longer inspection for these locations may be
6 justified.

7 So, potentially, you could have more space
8 inspections but you never stop having inspections.

9 JUDGE WARDWELL: And how will you achieve
10 that permission to extend the period of time between
11 the inspections?

12 MR. TRAVIESO-DIAZ: Well, you recall the
13 license conditions requires Entergy to consult and
14 notify the NRC, a designated person at the NRC on what
15 they're proposing to do. Entergy's not going to do
16 any of these things willy-nilly. It will be in
17 accordance with, you know, engineering analysis, and
18 with the permission of NRC.

19 JUDGE ELLEMAN: The word "inspection" is
20 kind of an umbrella word that can include a lot of
21 different things. Do you use dye penetrating tests to
22 look for cracks? Do you use ultrasound? Or is it
23 strictly just a visual inspection for cracking?

24 MR. TRAVIESO-DIAZ: Let me tell you, how
25 you do the inspection is specified in Appendix C to

1 SIL-644, Reg 1. The main method that I understand is
2 used is visual inspection with a dryer, which is what
3 was done during the power ascension phase. I'm sure
4 that there are other methods that could be implemented
5 if there is an appearance that your dryer's having a
6 problem. But it's all specified here.

7 And to finish with 644, Appendix D to 644
8 gives you guidelines on what you have to monitor while
9 the plan is in operation, to make sure you detect any
10 potential steam dryer failure.

11 For example, the amount of moisture
12 exhibits in your steam, exhibits a big increase, what
13 you're going to be required to do is to measure
14 quickly, repeatedly, and if there is no explanation
15 for the trend, you have to shut down. So this is all
16 specified here.

17 JUDGE WARDWELL: I have a question. Turn
18 to your answer to the contention on page 25, and I'm
19 concerned, a little bit, whether this is, whether
20 you're really dealing with a motion for summary
21 disposition here. Isn't that what you're arguing,
22 almost, that, well, their expert is wrong, we are
23 right? I mean, let me just continue, if I might.

24 I note that on page 25, you start your
25 answer on Contention 3, and finally, on page 29,

1 which is the last page you really address this, you
2 give me a citation to the reg--you know how I like the
3 citations to the reg--and you tell me that your
4 concern boils down to (f) 1 (vi), which is, there's no
5 genuine dispute to the material fact, which is very
6 much akin to the motion for summary disposition type
7 of issue.

8 And wouldn't this pass a motion for
9 summary disposition, much less admissible contention,
10 in terms of at least some support that they've
11 provided?

12 MR. TRAVIESO-DIAZ: I would say that this
13 would fail even a motion to dismiss for failure to
14 state a claim, because they have not challenged, they
15 have not raised an issue, a fact of law dispute with
16 respect to the application. The claims they are
17 making are totally irrelevant to the aging management
18 plan.

19 CHAIR KARLIN: But I thought they're
20 saying, again--maybe I've misunderstood--there's the
21 benchmark, these two models are part of the plan, they
22 would appear to be part of the plan, and that they're
23 not adequately benchmarked. That may be totally wrong
24 but that's what I hear them saying, and they need to
25 be benchmarked, and if they're not, then they're not

1 going to be a useful tool.

2 MR. TRAVIESO-DIAZ: Well, why we go under
3 subsection 6 is precisely because the underlining
4 assumption that these programs, whatever their merits,
5 or their merits may be, are part of the aging
6 management program, is not a true assumption and you
7 can demonstrate that just by looking to what we have
8 committed to doing.

9 CHAIR KARLIN: Did you say that in your
10 answer? And let me just finish. Can you cite me to
11 page 25, somewhere, where it says the failure to
12 benchmark these two models is irrelevant because we're
13 not using them in any way, shape or form for our aging
14 management program?

15 MR. TRAVIESO-DIAZ: Well--

16 CHAIR KARLIN: It didn't seem to say that.
17 I'm not sure. I didn't get that, anyway; but maybe
18 it's there.

19 MR. TRAVIESO-DIAZ: Well, what we meant to
20 say, since we had to respond to their contention, we
21 put it in the context of what was done at the time of
22 the EPU. There were two parallel efforts, one that
23 Entergy did, that was trying to determine,
24 analytically, what the stress levels on the condenser
25 would be, and the condenser and the steam dryer under

1 uprate conditions, and that's what the programs were
2 used for.

3 And in fact another licensing condition is
4 that that part of the process be terminated. Entergy
5 has submitted a final report to the NRC, showing that
6 the uncertainty that was alleged to exist has been
7 reduced to a very small amount, the dryer has like a
8 90 percent margin against the stress that's required.

9 So we refer to the analytical programs, A,
10 because they were raised by NEC, and B, because were
11 part of the historical development that led you to
12 doing also monitoring at the time.

13 CHAIR KARLIN: Well, one thing I would
14 like to address is on page 26, and having been part of
15 the board that's doing the uprate, you say in that
16 first full paragraph, you reference again the ironclad
17 obligation, and then you talk about the EPU. Surely
18 you don't suggest that the petitioner in this case has
19 an ironclad obligation to read every other proceeding
20 that occurs.

21 The ironclad obligation, to the extent it
22 exists, applies to things that are filed in this
23 license renewal application and not other
24 applications, doesn't it?

25 MR. TRAVIESO-DIAZ: Well, the first short

1 answer is how it started. They haven't read what
2 applies to this proceedings, which is SIL-644. So
3 they haven't met that ironclad obligation.

4 CHAIR KARLIN: Right, but let me just
5 posit, as you referred to ironclad obligation, and then
6 you start referring to the EPU, the very next sentence
7 you talk about the EPU, and then you further say in
8 the EPU that this measure was an attempt to litigate
9 a contention that was rejected as late, in the EPU
10 proceeding--that's accurate--it was rejected only
11 because it was late, not because it wasn't valid.

12 MR. TRAVIESO-DIAZ: Well, but the reason
13 why what happened in the EPU proceeding is relevant is
14 to understand the monitoring measurement program that
15 has been in effect already, will be in effect for six
16 years, and will be continued for twenty more. It is
17 the same program. You heard NEC counsel say, well,
18 Entergy should commit to doing this. We don't only
19 have a commitment. We have a licensed condition. We
20 are going to be doing this for the duration.

21 So the contention has absolutely no basis
22 in fact and doesn't meet the requirement of (f) 1 (vi)
23 because it doesn't challenge what Entergy's actually
24 proposing to do. It's as simple as that.

25 CHAIR KARLIN: Okay. Any other

1 questions?

2 JUDGE ELLEMAN: If a vein should break off
3 a steam dryer and get circulated somewhere, is that a
4 serious event?

5 MR. TRAVIESO-DIAZ: Well, it depends on
6 how it breaks down and what it does. Potentially
7 could be serious.

8 JUDGE ELLEMAN: I'm sorry. Potentially
9 what?

10 MR. TRAVIESO-DIAZ: Well, it could
11 potentially be serious but without knowing more about
12 the scenario, I don't think anybody can predict what
13 would happen.

14 JUDGE WARDWELL: Can you explain a
15 condition where breaking of the vein wouldn't be a
16 serious condition at the time it broke?

17 MR. RUND: One minute.

18 MR. TRAVIESO-DIAZ: Well, I would say it
19 would depend where it went. Okay? A steam dryer sits
20 on top of the reactor, and if it drops a piece, that
21 piece could go into the reaction or anywhere else.
22 But this entire program is intended to detect
23 potential flaws before they became cracks and before
24 there is a failure.

25 So the idea is that that's not going to

1 happen.

2 JUDGE ELLEMAN: So it could be serious or
3 it could be inconsequential, depending on subsequent
4 events?

5 MR. TRAVIESO-DIAZ: Well, it depends on
6 what you drop or what you break and how you break it
7 and where it goes. In the incident that was the root
8 cause of all this, the Quad Cities event, there were
9 flaws and breakers in the steam dryer and there were
10 no safety, direct safety consequences. The plant had
11 to be shut down because it was behaving erratically,
12 the moisture level was high. But there was no actual
13 physical consequence to that event.

14 MR. RUND: Time.

15 CHAIR KARLIN: Any other questions?

16 Okay. Thank you. Thank you, Mr.
17 Travieso-Diaz.

18 Staff. Ms. Young.

19 MS. YOUNG: Thank you, Judge Karlin.

20 The staff had objected to this contention
21 because the petitioners had failed to provide a
22 sufficient basis for their contention, particularly
23 their claim that the computer models were not properly
24 benchmarked.

25 And noting Ms. Tyler's remarks this

1 morning, it seems petitioners would like to rely in
2 information cited by applicants in their response to
3 the SC on the uprate proceeding.

4 Those documents were publicly available
5 and the ironclad obligation to examine publicly-
6 available documents pertains to the facility in
7 question, not just the application pending before the
8 NRC, and in this case it should be a particularly
9 higher burden, given that NEC is also a party in that
10 proceeding and was aware of those documents. NEC's
11 contention, in particular, is concerned about the 120
12 percent uprate--

13 CHAIR KARLIN: Do you have a cite for
14 that?

15 MS. YOUNG: Well, the words from the
16 **Catawba** case itself says the facility in question. It
17 does not say the application pending.

18 CHAIR KARLIN: Okay. I'm just not sure.
19 It seems to me that there is a difference, and I just
20 would like a cite, if there was one. We'll try to
21 research that issue.

22 MS. YOUNG: Certainly. But we're talking
23 about an SC on Vermont Yankee and the power uprate,
24 the particular issue that they are concerned about in
25 terms of performance of the steam dryer during the

1 renewal period.

2 If there's any document that's relevant,
3 that was it. They were aware of it, they chose not to
4 cite it, and only, you know, mentioned in response to
5 a question from you this morning, they were relying on
6 information provided by the applicant in their reply.
7 To me, that's obvious, that there was a failure, on
8 their part, to provide sufficient detail, foundation,
9 for their contention.

10 CHAIR KARLIN: Well, let's turn to Dr.
11 Hopenfeld. The staff is the one who raised the issue
12 about the particular pages, I think, in Dr.
13 Hopenfeld's citations, that they're not properly
14 benchmarked.

15 You indicated that the pages did not
16 support his proposition.

17 MS. YOUNG: Yes; correct.

18 CHAIR KARLIN: You raise that.

19 MS. YOUNG: Yes. Ms. Tyler suggested that
20 that was an ACRS report, that's an ACRS transcript, is
21 a meeting with exchanges between, you know, Entergy,
22 who was doing a presentation on an uprate, and
23 questions that the ACRS members had.

24 The staff, in examining those pages, was
25 not able to find information that said they were

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1 properly benchmarked, and in petitioners' response,
2 they didn't provide any information that rebutted that
3 concern of staff.

4 CHAIR KARLIN: Well, wasn't there a
5 passage that we were reading earlier from the ACRS
6 report, talking about poorly, poorly--

7 MS. YOUNG: I believe that was from the
8 SC, if I understood the page that Ms. Tyler was
9 reading from. But maybe she can correct me.

10 CHAIR KARLIN: I think we can find it.

11 [Pause]

12 CHAIR KARLIN: Oh. This was the state of
13 validation of these methods as poor. I guess that was
14 a statement that--I'm reading from page 27 of
15 Entergy's answer, and it's the ACRS letter, from the
16 chairman to Chairman Diaz, and it indicates the state
17 of validation of these methods were poor, and it goes
18 on to say, as we discussed, that there are other
19 monitoring measures going to be taken, that would
20 ultimately satisfy the ACRS, I guess.

21 MS. YOUNG: Okay. But a letter from
22 Chairman Diaz was not in the transcript pages that
23 they cited.

24 CHAIR KARLIN: Okay.

25 MS. YOUNG: In other words, that's

1 information that's publicly available. That's
2 information they were aware of as a party to the
3 uprate proceeding. They didn't provide it in support
4 of their contention.

5 CHAIR KARLIN: Well, they did provide a
6 declaration by Dr. Hopenfeld, I think it was, and it
7 went on for several, four or five paragraphs, and do
8 you think they need to do more than that? I mean,
9 this is an expert. You're not challenging his
10 qualifications.

11 He's addressing the benchmarking of these
12 two models. As I hear Entergy saying, that's not
13 relevant or important, but assuming it were, how much
14 more does he need to say in order to achieve, meet the
15 supporting evidence requirements?

16 MS. YOUNG: Well, if you look at that
17 affidavit, it has four paragraphs but only one of them
18 is about whether the models are properly benchmarked,
19 and the only citation is to the ACRS transcript.

20 So, in other words, you know, consistent
21 with the precedents in the USEC decision yesterday,
22 which says that even an expert can't merely state a
23 conclusion without providing support, the staff looked
24 at that support to see if it raised a genuine dispute
25 regarding information in the application, and those

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1 pages did not indicate that the computer models were
2 not properly benchmarked.

3 CHAIR KARLIN: Well, the USEC decision,
4 which you cited yesterday, I think involved a case
5 where I don't even think they had any expert. I don't
6 think it was a holding, that was a very recent
7 decision, and a very unsupported I would say
8 contention--

9 MS. YOUNG: Yes, but it's guidance from
10 the Commission, and that's what the staff relies on in
11 taking its positions in NRC proceedings. You know,
12 the staff doesn't slice it, whether it's dicta or the
13 holding. It is guidance on how the staff and board
14 should--

15 CHAIR KARLIN: Well, no, I rely--we rule
16 on if it's a holding. If it's just a statement, if
17 it's dicta, then we don't necessarily feel bound by
18 that. We'll make a ruling as we see right, and if the
19 Commission wants to make a holding, they can, but
20 until that comes down, we're not bound. You can argue
21 it but we're not bound.

22 MS. YOUNG: Well, we're disputing whether
23 it's dicta or holding, but to the extent that the
24 Commission gives a pronouncement on how its rules of
25 procedures should be interpreted in its decisions, the

1 staff relies on that and I believe the Commission
2 expects its boards to also.

3 CHAIR KARLIN: Well, let's go back to the
4 declaration, the first--if I've got it right here.

5 MS. YOUNG: I'm looking at paragraph 19 of
6 the declaration.

7 JUDGE WARDWELL: I'm sorry. Where are you
8 at?

9 MS. YOUNG: Paragraph 19 of Mr. Hopenfeld,
10 Dr. Hopenfeld's declaration.

11 CHAIR KARLIN: Well, it starts on
12 paragraph 15. First, they recite a number of
13 documents that they say support their position. Then
14 16, they say there's going to be a flow increase
15 attributable to the EPU. The flow-induced vibrations
16 will increase. This could cause a problem. It
17 happened at Quad Cities already. I don't know whether
18 that's true or not; but he's saying that.

19 Seventeen, if the flow-induced vibration
20 loads, together with, etcetera, etcetera, it could
21 prevent an MSIV from isolating the steam loss during
22 a loss of coolant accident. Eighteen, they refer to
23 paragraphs. No matter what guidance they follow, the
24 status of the dry cracks must be continuously--I mean,
25 it's not just 19, and even for 19, he's saying that

1 the proposed techniques--and he's just referred to the
2 techniques and gone into some discussion of that, not
3 based on actual measurements, and they're not proven,
4 and he has a problem with them. I don't think that's
5 an entirely bald assertion; has some hair to it.

6 MS. YOUNG: Well, the staff didn't
7 disagree in terms of the characterization of the
8 issue. Intervenors have identified a safety issue.
9 People have concerns about safety issues. That does
10 not mean that they have pled a litigable contention.
11 An Intervenor, in challenging the basis for inadequacy
12 of visual measurements, talked about inadequacy of
13 computer models, and then to support their claim that
14 the inspection program is inadequate, when you rely on
15 computer models that aren't properly benchmarked, you
16 should provide information that supports your
17 contention that the computer models are improperly
18 benchmarked.

19 The only information in the affidavit that
20 the computer models--

21 CHAIR KARLIN: By an expert.

22 MS. YOUNG: By an expert that only cited
23 pages to an ACRS transcript, and this morning you're
24 hearing that there's actually information in the
25 uprate SC. So again, they did not provide sufficient

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1 information.

2 CHAIR KARLIN: Well, they didn't provide
3 all the information. They're not obliged to provide
4 all the information, are they, if they provide
5 sufficient information? But what's the purpose of
6 this contention requirement? It is to make sure they
7 can't just allege some bald statement, there is a
8 dispute, we don't like nuclear power.

9 They have to give us something specific
10 that can be litigated in some concrete way. This
11 seems like something specific that could be litigated
12 in a concrete way. They may win, they may lose. I
13 don't know what kind of exclusionary threshold we have
14 to create here--

15 MS. YOUNG: But when you say that a model
16 is not properly benchmarked, you have an obligation,
17 even as an expert, to provide a basis for your
18 opinions. Any expert can give an opinion on anything
19 but they'd have to provide a basis, and the staff
20 can't discern whether there is a dispute right respect
21 to this applicant if the expert doesn't provide a
22 basis, and the basis provided in the petition was only
23 a citation to an ACRS transcript which generally
24 discussed issues with the dryer, and even indicated,
25 as you recognize in the footnote cited in the staff's

1 answer, that there was even a good agreement between
2 the predictions of crack growth, which these models
3 are for, and what Entergy actually found.

4 You know, to the extent that the staff had
5 safety concerns that caused to add additional
6 constraints or conditions with respect to the steam
7 dryer is not the issue right here. The issue is
8 whether petitioners have sufficiently pled their
9 contention, and the staff's position is that they have
10 not.

11 CHAIR KARLIN: Okay. Any questions?
12 Anything further? Okay. Ten minutes I guess on
13 rebuttal.

14 Ms. Tyler. And hopefully you can address
15 this issue, now that we have focused on it a little
16 better, the citations in Dr. Hopenfeld's declaration
17 and the provisions that the staff has challenged. Can
18 you help us with that any more?

19 MS. TYLER: I'm sorry?

20 CHAIR KARLIN: Can you help us with the
21 issue that we've talked about. The staff raised, in
22 their answer, that Dr. Hopenfeld's citations in
23 paragraph 19 did not support the proposition he was
24 presenting to us. Have you had a chance to look at
25 that?

1 MS. TYLER: Unfortunately, I really can't
2 elucidate that for you because I don't have a copy of
3 that report, so I can't look at it right now and
4 confirm that in fact he did cite to the right pages.
5 It's possible that he didn't cite to the right pages,
6 although when we put this together I believe we
7 confirmed in fact that he had.

8 I think that you pretty accurately
9 summarized the facts and opinions that Dr. Hopenfeld
10 provided. This issue came up in yesterday's
11 discussion as well. He is an expert; no one's
12 challenged his credentials. It's his expert opinion
13 that these models are uncertain and need confirmation
14 through additional methods. He did indicate that
15 others share this opinion, that this came up in the
16 EPU proceeding.

17 Entergy, again, has cited documents in its
18 answer to the same effect. Regarding the issue of our
19 obligation to review every document on the record, I'd
20 like to read a cite from an NRC case, which is 37 NRC
21 5, **Pacific Gas & Electric Company**.

22 It says the ironclad obligation of a
23 petitioner to examine publicly-available documentary
24 evidence in support of its contention applies only to
25 information in support of the contention. A

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1 requirement also to examine contrary publicly-
2 available documentary evidence would unduly exacerbate
3 the considerable threshold that a petitioner must
4 already meet under the current revised contention
5 rules.

6 So it's not our burden to look at every
7 single thing that relates to our contention. We only
8 have 60 days to put together these contentions, to
9 review a great deal of information, you know, an 800-
10 page application, all the supporting documentation.

11 CHAIR KARLIN: And is that a Commission
12 decision?

13 MS. TYLER: This is--the cite is 37 NRC 5.
14 It is a Commission decision, **Pacific Gas & Electric**
15 **Company**, Diablo Canyon Nuclear Plant Units 1 and 2.
16 I'm not sure that our expert did review the GE-SIL-
17 00042 document. The application refers to two
18 documents, the BWR vessels internals program document,
19 and the second one, the BWR vessels internals program
20 was definitely proprietary. We couldn't find it.

21 We weren't able to find the second one on
22 Adams, and I would add that the Department of Public
23 Service has indicated that they weren't either,
24 although they have now found it, once we've gotten
25 this, the ML number.

1 Entergy appears to be stating now that it
2 has a current license condition to comply with this
3 GE-SIL-0042 inspection program, but that's not what
4 they said in the answer. In the answer, the only
5 license condition that they referred to was the
6 condition imposed in the context of the EPU
7 proceeding, involving an inspection program that would
8 terminate. That's what they said in their answer.
9 That's what we responded to.

10 We would like to see a license condition,
11 a similar license condition for the renewed license,
12 and I'm not clear on whether they're claiming that
13 their current license requires compliance with the
14 inspection program that Mr. Travieso-Diaz described.

15 I would add, as we mentioned in our reply,
16 that there is currently an investigation underway
17 before the Vermont Public Service Board, regarding the
18 reliability of the steam dryer under uprate, and the
19 stems from the state nuclear engineer's conclusion
20 that the protocols in place during the EPU didn't
21 accurately predict whether additional cracking would
22 occur.

23 So there are a lot of questions out there
24 about whether we can be sure that the dryers in good
25 shape, that it's being adequately monitored, that it

1 will last for the next 20 years.

2 Even if they are following the GE-SIL-0042
3 protocol, I think questions remain about whether
4 that's adequate, given the uprate, given the problems
5 that have been observed at Quad Cities, that Dr.
6 Hopenfeld mentioned in his declaration.

7 I think if we had a hearing on this issue,
8 it would be worth everyone's time to explore that
9 issue in more detail. How accurate is that? You
10 know, how much confidence can we have in what's been
11 done so far? What really needs to be done, over the
12 next 20 years, to make sure that the situation is a
13 good one?

14 CHAIR KARLIN: Okay.

15 JUDGE ELLEMAN: The Entergy program
16 appears to involve a series of defined inspections,
17 followed by a later possible modification of that
18 inspection schedule, if no problems are detected.

19 Well, why isn't this a reasonable way to
20 proceed?

21 MS. TYLER: I can't really say. I think
22 that's a question that we need to ask Dr. Hopenfeld
23 who is the mechanical engineer. I think it's going to
24 depend, again, on an evaluation of the specific uprate
25 conditions, of our confidence in the evaluation that's

1 already been done, of our confidence in, you know, how
2 we determine what stresses the dryer is currently
3 subject to and how it might respond to those stresses.

4 I mean, I'm assuming that this GE, that
5 this guidance doesn't specifically address uprate
6 operation, so I think there'd need to be a
7 consideration of how the guidance would need to be
8 tailored to the uprate operation condition, and those
9 are all issues that we could productively explore in
10 a hearing.

11 JUDGE WARDWELL: To extend on that a bit,
12 what I heard NEC reply to this was in fact that this
13 inspection program won't even stop if no flaws, or
14 flaw growth is detected. That, in fact, as required
15 by 644 and the license condition, those will continue
16 during--I forgot what he said in regard to some fuel
17 outages, the frequency of them--but, in fact, is even
18 going to extend beyond what I had originally thought
19 was the situation.

20 Is that your understanding and how would
21 you comment on that? It seems to me it's even less
22 finite than originally anticipated, based on the
23 response of NEC.

24 MS. TYLER: I think my first point--i
25 still am unclear about whether this program is a

1 license condition or whether it's just a guidance that
2 they purport to comply with. The only actual license
3 condition that they mentioned in their answer to our
4 contention was the condition imposed as part of the
5 uprate proceeding, that required a monitoring program
6 specifically in the context of the ascension power
7 testing and the few operating cycles subsequent to
8 that.

9 So I'm not sure if they have a license
10 condition that actually requires this ongoing program
11 of visual inspection.

12 If they do, I think there are still issues
13 that we could productively explore in a hearing about
14 whether that program is sufficient under the uprate
15 condition, to what extent it needs to be tailored,
16 whether the interval is adequate.

17 I think, you know, the other issues are--
18 Dr. Hopenfeld has just mentioned the issue of safety
19 in between operational inspections.

20 JUDGE WARDWELL: Yes. That is always
21 going to be an issue, is how much is enough. Thank
22 you.

23 CHAIR KARLIN: Anything else? Nope. All
24 right. Then I think we're finished a little bit
25 early.

1 MS. TYLER: I'd just like to ask our
2 client if he has anything he'd like me to add. I'm
3 sorry.

4 CHAIR KARLIN: Sure.

5 [Pause]

6 MR. RUND: One minute.

7 MS. TYLER: I think we've said what we
8 need to say. Thank you.

9 CHAIR KARLIN: Okay. Thank you. Good.
10 Let us now turn to NEC Contention 4. The same
11 approach. how do you want to handle the rebuttal time
12 on this one, Ms. Tyler?

13 MS. TYLER: Ten minutes for rebuttal,
14 please.

15 CHAIR KARLIN: Very good. Please proceed.

16 MS. TYLER: So Contention 4 concerns
17 Entergy's plan to manage aging of the plant piping due
18 to flow accelerated corrosion. The program, as
19 described in the application, does rely, to some
20 extent, on the CHECWORKS model, which is a computer
21 model used to determine which site locations to
22 inspect and the inspection frequency, as I understand
23 it.

24 It's the opinion of our technical expert
25 on the subject, Dr. Hopenfeld, that this model won't

1 be reliable over the next ten years because it's an
2 empirical model that has to be benchmarked to the
3 specific conditions in the plant, and that the uprate,
4 because the power uprate has markedly changed the
5 plant conditions, many years of inspection data are
6 necessary to benchmark the CHECWORKS model so that it
7 could be reliably used.

8 It's Dr. Hopenfeld's opinion that the
9 application does not adequately explain how Entergy
10 proposes to overcome this problem and establish valid
11 trends for the model under the uprate operation
12 condition.

13 Entergy addresses this question, to some
14 extent, in its answer, that is, how it would establish
15 valid trends, why it can still use the CHECWORKS
16 model. It basically suggests, I think, that it
17 doesn't need to use the CHECWORKS model because it can
18 predict wear rates, because the increase in proportion
19 to flow velocity. That was their first point I think.
20 They also suggest that they'll focus on inspecting the
21 longest sections of pipe. Dr. Hopenfeld disagrees
22 that these are valid approaches in his rebuttal, and
23 I think we have a dispute, clearly, of material fact.

24 JUDGE WARDWELL: How do you respond to
25 Entergy's statement that CHECWORKS is only used as a

1 device to identify highly susceptible areas and isn't
2 used beyond that in regards to their evaluations of
3 FAC?

4 MS. TYLER: Well, I think even if it's
5 used only for that limited purpose, it's an important
6 component of the program, and if it doesn't accurately
7 identify which areas should be inspected, that's a
8 major flaw in the overall approach.

9 JUDGE WARDWELL: Well, certainly, wouldn't
10 you agree that it's less critical than if it was some
11 type of model that was used to predict and project
12 overall performance of an area, rather than one that
13 says, okay, let's apply this model just to target
14 those areas that we really want to focus on in our
15 future maintenance monitoring and other types of
16 modeling plans?

17 MS. TYLER: I think it's Dr. Hopenfeld's
18 opinion that the model is a very important part of the
19 overall FAC program, and that I think he explains in
20 his declaration that it's been very difficult for
21 plants, in the past, to use the model correctly. But
22 there have been a number of serious accidents related
23 to pipe failures due to FAC.

24 CHAIR KARLIN: The staff raises a point
25 on, I think page 14. You're confronting the

1 allegation that it's conclusary. Dr. Hopenfeld's,
2 again, is too conclusary, it isn't supported.

3 And they point out one thing, in
4 particular, the ten to fifteen years, that it has to
5 take ten to fifteen years to benchmark this. That
6 seems to come sort of "out of the blue" there. Is the
7 ten to fifteen years a critical component of the
8 issue? Or could it be five years it requires to be
9 benchmarked? Does it make a difference, whether it's
10 ten to fifteen?

11 MS. TYLER: I think we've addressed this
12 issue several times, yesterday and today. You know,
13 Dr. Hopenfeld is an expert. He has a specific
14 emphasis in FAC issues. No one's challenged his
15 credentials. It's his judgment that this amount of
16 time would be necessary to benchmark the model for
17 appropriate use under the new conditions.

18 CHAIR KARLIN: His affidavit, his
19 declaration, goes on for three pages, it seems like,
20 or so, and only kind of at the end do we see this ten
21 to fifteen years. If you eliminated the ten to
22 fifteen years, and just said it needed to be
23 benchmarked, wouldn't you still have a contention?

24 Is ten to fifteen years some critical
25 element of your contention?

1 MS. TYLER: Well, I think to some extent
2 it is.

3 CHAIR KARLIN: The staff says it comes out
4 of nowhere and it does sort of come out of nowhere,
5 ten to fifteen years. The rest of it, there is some
6 rationale and explanation, it seems to me.

7 MS. TYLER: I think it's his judgment that
8 it would take that amount of time.

9 CHAIR KARLIN: Well, I understand it's his
10 judgment but is there anything other than just "out of
11 the blue," it's my judgment, that's in the affidavit,
12 that's in the--

13 MS. TYLER: There's nothing in the
14 affidavit, anything, his judgment to that effect.

15 CHAIR KARLIN: Can you support me to
16 something that supports the 10 to 15 year timeframe in
17 the declaration?

18 MS. TYLER: We haven't included anything
19 in Dr. Hopenfeld's affidavit but he will provide it,
20 should we have a hearing on the issue.

21 CHAIR KARLIN: But let me go back to the
22 original question. Is that important to your
23 contention, that is, 10 to 15 years?

24 MS. TYLER: Well, yes, I think it clearly
25 is important to our contention in that I think it's

1 obvious that if it could be benchmarked more quickly,
2 then it would be valid potentially during the extended
3 term.

4 CHAIR KARLIN: So if we conclude that the
5 10 to 15 years component of his four pages of
6 declaration is bald and conclusory, then the
7 contention falls? You have no contention left? What
8 if it was eight years?

9 MS. TYLER: Well, if it was eight years,
10 then we would have two years of the new license term
11 when it wasn't used.

12 CHAIR KARLIN: Right.

13 MS. TYLER: Reliably.

14 CHAIR KARLIN: So if the 10 to 15 years is
15 truly a bald and conclusory statement, would your
16 contention fall?

17 MS. TYLER: I think one of the issues that
18 we have to look at is how long it would take to
19 benchmark it. I think we also have to look at how we
20 would benchmark it and whether it could be
21 benchmarked.

22 CHAIR KARLIN: All right. So think it's
23 going to take some time.

24 MS. TYLER: I see where you're getting at;
25 you know.

1 CHAIR KARLIN: Okay. I just didn't
2 understand the significance of that 10 to 15 years,
3 and staff points it out and I think they may have some
4 point there.

5 I mean, another thing that's raised by
6 Entergy is this is vague and not supported by, you
7 know, adequate information. They're wanting you to
8 point to specific areas of piping.

9 I guess the allegation is this corrosion
10 will affect piping. Well don't nuclear facilities
11 have a huge amount of piping, so couldn't it be a
12 little more specific and just say somewhere in the
13 system there may be a pipe that'll have a problem?

14 MS. TYLER: I think the piping, in
15 general, is--

16 CHAIR KARLIN: I mean, maybe you did but
17 I missed it.

18 MS. TYLER: No; we didn't.

19 CHAIR KARLIN: All right.

20 MS. TYLER: We said the plant piping is
21 subject to flow accelerated corrosion. The plant
22 piping is a component of the plant that is subject to
23 an aging management review under the rules.

24 CHAIR KARLIN: And it is, is it not?
25 You're just saying it's not adequate.

1 MS. TYLER: Yes. It's the aging
2 management program for the plant piping that we're
3 concerned with. It's the plant piping that's subject
4 to the aging management program.

5 CHAIR KARLIN: And their management
6 program is inadequate because the CHECWORKS program is
7 not adequately benchmarked?

8 MS. TYLER: Yes.

9 CHAIR KARLIN: Okay.

10 JUDGE WARDWELL: How do you respond to
11 Entergy's statement that if in fact everyone accepted
12 your hypothesis of this 10 to 15 years as a
13 benchmarking timeframe, that in fact that opinion is
14 disputed by the fact that this particular model wasn't
15 used until 1993, and I guess no one has disputed that.
16 It hasn't been used successfully form '93 till now at
17 existing plants. How do you respond to that
18 statement, that if in fact your timeframe is correct,
19 then all the analysis conducted today would have been
20 in error?

21 MS. TYLER: I think it's Dr. Hopenfeld's
22 opinion that the model has never been used terribly
23 successfully, that it has been very difficult to
24 benchmark the model reliably.

25 JUDGE WARDWELL: Where is that stated? I

1 didn't pick up that inference in anything that--

2 MS. TYLER: He includes a number of
3 references to accidents that have occurred at other
4 plants due to pipe failures, and flow accelerated
5 corrosion related pipe failures and I think that it is
6 basically his position that it's been very difficult
7 to use his model correctly.

8 MR. RUND: One minute.

9 MS. TYLER: It hasn't been used correctly
10 in a number of instances, and that because the uprate
11 has changed a lot of the plant parameters, it will be
12 particularly difficult to use it reliably at Vermont
13 Yankee over the next decade.

14 JUDGE WARDWELL: So, in essence, you're
15 saying, in fact, maybe it hasn't worked so fine. In
16 fact it hasn't been benchmarked correctly.

17 MS. TYLER: Dr. Hopenfeld thinks that it's
18 never worked very well and that it will work even less
19 well at Vermont Yankee.

20 JUDGE WARDWELL: Thank you.

21 JUDGE ELLEMAN: If the frequency of
22 inspection is controlled, not by CHECWORKS, but,
23 rather, by more standard methods, ultrasonic
24 measurements of pipe thinning and surveying, the past
25 database. If those are the factors controlling the

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1 inspection frequency, does your contention go away?

2 MR. RUND: Time.

3 MS. TYLER: I don't think it's been
4 demonstrated that those are the only elements of the
5 program. I think Dr. Hopenfeld's contention is that
6 CHECWORKS is an important element of the program and
7 if the model isn't working reliably, that's a problem.

8 JUDGE ELLEMAN: Yes, but we've been told
9 the use of it is to locate the regions of highest
10 sensitivity, not to establish the frequency.

11 MS. TYLER: I can't personally speak to
12 that. As Dr. Hopenfeld has explained it to us, the
13 model indicates what areas should be inspected and how
14 often. So as he's explained it, it is used to
15 determine the necessary frequency of an inspection.

16 CHAIR KARLIN: All right. Thank you. Any
17 other questions? No.

18 Entergy. Mr. Travieso-Diaz.

19 MR. TRAVIESO-DIAZ: Yes. I am going to
20 start somewhat out of sequence because I think the
21 concept of bald and conclusary is never better
22 illustrated than in this particular case.

23 The whole crux of this contention is as
24 follows. You cannot predict flow accelerated
25 corrosion at Vermont Yankee after they operate because

1 the flows and velocities have changed. Now the
2 plant's operating at a higher power level, and as a
3 result, you really don't have any proper way to use
4 this empirical program, CHECWORKS, because the
5 information has changed.

6 And the reason you cannot use CHECWORKS
7 today is because it takes 10 to 15 years of
8 benchmarking to make a user.

9 Well, both Entergy and the staff challenge
10 that premise as being, or conclusion as being totally
11 unsupported.

12 Dr. Hopenfeld filed a second affidavit,
13 which, by the way, we moved to strike, in which he
14 responded to our claims. He did not respond to our
15 claim that there is no basis for his 10 to 15 years.
16 He had two bites at the apple and he never could come
17 up with any support for what he said was 10 to 15
18 years.

19 In fact neither in the user manual, the
20 EPU documentation, the NRC documents there, is any
21 limitation as to how you use CHECWORKS. So the 10 to
22 15 years is totally bald, conclusary and unsupported.

23 CHAIR KARLIN: Well, I mean, part of the
24 issue is how important is this particular timeframe,
25 if they have supported--let's say there's some support

1 for the proposition that it's not properly
2 benchmarked, and that it would take a goodly amount of
3 time for it to be benchmarked, and therefore it can't
4 be used or shouldn't be used, or it's not reliable or
5 adequate in some way. Is it critical to that
6 contention that it--let's say we threw out the 10 to
7 15 years. So that is bald and conclusary. But the
8 rest of it has so some support.

9 So do they have a contention it's valid?

10 MR. TRAVIESO-DIAZ: No, because in fact
11 CHECWORKS is being benchmarked, even as we speak.

12 CHAIR KARLIN: Is being benchmarked?

13 MR. TRAVIESO-DIAZ: Right, even as we
14 speak, because what you do with CHECWORKS, this is a
15 bounding program that gives you general data from many
16 plants. You immediately start putting in your plant-
17 specific data to it, which has been done already.
18 Every time that you have an outage and do inspections,
19 you measure the thinning of the pipe and you use that
20 as an input for the next.

21 JUDGE WARDWELL: How much data is
22 available at the power rates that they're talking
23 about with the uprate license?

24 MR. TRAVIESO-DIAZ: Well, first you have
25 all the data going into what the conditions of the

1 pipes are today, because that has been established.
2 You don't have data going forward until you start
3 measuring the pipe.

4 JUDGE WARDWELL: Right but wasn't that
5 data available on normal power rates that were used
6 historically in the development of CHECWORKS, that was
7 finally promulgated and started to be used in 1993?
8 I mean, the GALL Report used historical information
9 prior to 1993, prior to the issuance of, or the
10 acceptability of this model and its use in that
11 timeframe. But those were all for conditions 20
12 percent less than what is at Vermont Yankee; isn't
13 that correct?

14 MR. TRAVIESO-DIAZ: Yes, and, in fact, not
15 only has it been put into CHECWORKS generally, but now
16 the data as to what the condition of the pipe is today
17 at Vermont Yankee is already in CHECWORKS because we
18 already have data, historical information.

19 But even more--

20 JUDGE WARDWELL: We can't linearly
21 extrapolate that data for the power uprate,
22 necessarily, I think is their contention, and it could
23 be an exponential function or--

24 MR. TRAVIESO-DIAZ: Okay. But it gives
25 you starting conditions. Okay? The starting point.

1 You know what the starting point is.

2 For the next years of uprate levels,
3 there's going to be three outages in which there are
4 going to be inspections made.

5 In fact they are going to have 50 percent
6 more inspections of the piping. So essentially you
7 have nine years equivalent of benchmarking that is
8 going to be available for CHECWORKS at the beginning
9 of the license renewal period.

10 So if you need benchmarking, you have it,
11 you have probably nine years worth. So--

12 JUDGE WARDWELL: I'm sorry. Where do you
13 get the nine years from?

14 MR. TRAVIESO-DIAZ: Because they're going
15 to increase by 50 percent the number of inspections in
16 those three outages. So in each of the outages they
17 are going to do the equivalent of a year and a half
18 worth of inspections.

19 JUDGE WARDWELL: I'm sorry, I still don't
20 follow that. Are you saying because they're doing
21 more frequent inspections, that that equilibrates to
22 some additional equivalent time period of--

23 MR. TRAVIESO-DIAZ: Exactly.

24 JUDGE WARDWELL: Well, no, I mean--go
25 ahead. I won't argue.

1 MR. TRAVIESO-DIAZ: But at any rate, there
2 is going to be benchmarking just by the fact that this
3 model is going to be used for the entire operating
4 period and there is going to be more inspections done.

5 Moreover, and I think it's important to
6 emphasis something that NEC has not responded to.
7 Entergy doesn't depend only on CHECWORKS to decide
8 where to do the inspections or how frequently to do
9 them.

10 We gave you in the answer the citation as
11 to where this is explained. We are going to be doing
12 the following things. We do use CHECWORKS. What we
13 use, pipe wall thickness measurements from prior
14 inspections, industry events that are relevant,
15 results from other inspection programs, engineering
16 judgment as to why the locations are more susceptible.

17 So you don't go blindly, using your
18 CHECWORKS predictions. You go look at the CHECWORKS
19 predictions and you moderate or use those together
20 with all the other information that you have, and
21 that's how you decide where you're going to do your
22 inspections.

23 So it's not just using CHECWORKS. Dr.
24 Hopenfeld admitted in his affidavit that he doesn't
25 know how CHECWORKS is used. I'm telling you how it's

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1 used, and he hasn't responded to that either.

2 It is a tool. Entergy depends on it, but
3 it doesn't rely exclusively on it, and I think is
4 entitled to rely on it also because it is--
5 benchmarking doesn't go alone. I want to make a brief
6 mention of one thing, which is that Dr. Hopenfeld
7 said, well, the industry experience shows that you
8 really can't rely on CHECWORKS.

9 It is a very inconsistent position to
10 take, to say on the one hand, it is a very important
11 thing that we want to make sure is right, and on the
12 other hand say it hasn't worked well. In fact it has
13 worked very well.

14 The accidents that he's talking about--and
15 let me tell you two things about that.

16 First, none of them was in the BWR, but
17 more importantly they are as follows. The Surrey
18 accident was what led to the creation of CHECWORKS,
19 was six years before there was a CHECWORKS.

20 The Japanese plant accident. In Japan,
21 they don't use CHECWORKS. The San Onofre accident.
22 It was piping internal to a steam generator that does
23 not use CHECWORKS.

24 The Forkahone incident was one, and there
25 was an error inputting data into CHECWORKS, and

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1 therefore "garbage in, garbage out," you don't put the
2 right situation with respect to the time that you have
3 been using the pipe, you cannot expect very good
4 results.

5 Indeed, the industry experience with
6 CHECWORKS has been good. All the accidents that Dr.
7 Hopenfeld refers to are either irrelevant or just
8 don't prove that CHECWORKS doesn't work.

9 JUDGE ELLEMAN: In the nine years or so
10 that you would have to benchmark CHECWORKS, you would
11 like to have a lot of data points to give you an
12 established trend as to how things are behaving.

13 Roughly, how many measurements of pipe
14 thickness at a given point are you going to have over
15 that nine years?

16 Are we talking several dozens? Are we
17 talking a half dozen?

18 MR. TRAVIESO-DIAZ: I'm told by people who
19 know, that they do it at 50 different locations, and
20 at 200 points at each location.

21 JUDGE ELLEMAN: Two hundred points?

22 MR. TRAVIESO-DIAZ: Right.

23 JUDGE ELLEMAN: Over the nine years at 50
24 different locations?

25 MR. TRAVIESO-DIAZ: Right.

1 JUDGE ELLEMAN: Okay; thank you.

2 MR. TRAVIESO-DIAZ: Each time; yes.

3 Unless the board has any questions, I
4 think that's all we need to say about it. This is a
5 fairly straightforward contention, we believe.

6 CHAIR KARLIN: All right. Thank you. Any
7 other questions?

8 JUDGE WARDWELL: Yes. I have just one
9 more clarification question. Say again what this nine
10 years of inspection--those are nine equivalent years.
11 Those aren't nine calendar years. Is that correct, in
12 my understanding?

13 MR. TRAVIESO-DIAZ: Yes; yes.

14 JUDGE WARDWELL: Okay. Thank you.

15 MR. TRAVIESO-DIAZ: I didn't make it
16 clear. Nine equivalent years. Because when you've
17 been benchmarking for 10 years, you take whatever
18 inspections you do in that period of time.

19 CHAIR KARLIN: I'm not sure whether I'm
20 missing something here, but perhaps you can help me,
21 if you have a minute. Contention 4. Dr. Hopenfeld's
22 declaration. I'm looking at it. I don't know. Where
23 does it say 10 to 15 years? Does it say that? Yes.
24 I guess it does. At the end of paragraph 24, just
25 before paragraph 25. It seems a relatively minor part

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1 of, you know, of a otherwise reasonably well-explained
2 concern.

3 JUDGE WARDWELL: And even if it isn't--let
4 me just add on because that really wasn't a question.
5 Did you have that in the form of a question?

6 CHAIR KARLIN: Yes. Is there a question?
7 Is there a question there? I guess it's back to the
8 question I started with. Is the 10 to 15 years
9 particularly relevant or important?

10 MR. TRAVIESO-DIAZ: Yes, because his
11 contention is that you cannot use CHECWORKS during the
12 license renewal period because you haven't been
13 marched long enough. That's his entire contention.

14 CHAIR KARLIN: Right.

15 MR. TRAVIESO-DIAZ: He doesn't claim--

16 CHAIR KARLIN: But the wording of the
17 contention itself doesn't have the word, 10 to 15
18 years in it, I don't think, and, you know, I don't
19 know how long it takes--it's going to take a while,
20 and it's not adequate now.

21 MR. TRAVIESO-DIAZ: Well, Mr. Chairman, I
22 have to tell you, I cannot redraft any such
23 contentions for that but the basic underpinning of the
24 contention is that you need to benchmark 10 to 15
25 years. That's what Dr. Hopenfeld said.

1 JUDGE WARDWELL: Isn't there a difference
2 in the weight that you would give a particular
3 petitioner, if a group came forward and said, oh, it's
4 going to take 10 to 15 years to benchmark this model,
5 as opposed to an expert who hasn't been refuted in
6 regards to his experience, makes a similar statement?
7 And isn't in fact that done commonly in the
8 engineering field where different experts will have
9 different opinions but they still have credible
10 validity to those, that you have to weigh because of
11 the fact of their experience base, knowledge,
12 etcetera, without any more elaboration than just--and
13 none can be given because of the abstractness of what
14 you're trying to define, still doesn't discredit those
15 particular numbers based on how they're given and the
16 context they're given.

17 MR. TRAVIESO-DIAZ: Well, I'll give you
18 first a glib answer and then a more reasoned one.
19 Glib answer. An expert can put his name behind a
20 contention that says the moon is made out of blue
21 cheese. The fact that he says that, it is not
22 necessarily validated just because--

23 JUDGE WARDWELL: Well, unless he happened
24 to be someone who was there and came back with some
25 blue cheese or had experience in that--you base it on

1 their experience base.

2 MR. TRAVIESO-DIAZ: Exactly, but--

3 JUDGE WARDWELL: And it is.

4 MR. TRAVIESO-DIAZ: Now the more reasoned
5 answer is this. It depends on the opinion--I think
6 you're correct. If you make a very abstract judgment
7 as to when you have a material, how long it's going to
8 take for certain phenomena to take place--

9 JUDGE WARDWELL: And isn't that done often
10 in our field?

11 MR. TRAVIESO-DIAZ: Indeed.

12 JUDGE WARDWELL: In a bunch of fields?

13 MR. TRAVIESO-DIAZ: Indeed but--

14 JUDGE WARDWELL: In engineering fields.

15 MR. TRAVIESO-DIAZ: Yes, but this is a
16 very specific claim. It takes ten years of
17 benchmarking. He must have gotten that number of ten
18 years out of some place.

19 JUDGE WARDWELL: No, it says it'll take 10
20 to 15 years. It's kind of a general--I've heard that--
21 -haven't you heard that statement similar to this
22 during your career and exposure to engineering fields,
23 where experts will say, oh, it'll take--and they'll
24 provide a general framework from the general timeframe
25 that things will place. Bounding parameters of what

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1 a certain value should be.

2 MR. TRAVIESO-DIAZ: That same thing is
3 almost universally followed by a foot note that gives
4 a citation to something. I think that there are
5 different qualities to expert testimony. Some of them
6 state conclusions, conclusions based on what is
7 preceded by analysis, and then "I conclude X." Here,
8 this comes out of the air, is contrary to all the
9 experience that there is in the industry, both using
10 CHECWORKS, the NRC recommendations that are used as a
11 reliable tool, the fact that it would be used from day
12 one by everybody, and nobody complained about it.

13 The 10 to 15 benchmark, it is an opinion
14 of our expert, in these circumstances has to be
15 supported by something. It cannot just come out of
16 the air.

17 JUDGE WARDWELL: Thank you.

18 CHAIR KARLIN: Thank you. Staff.

19 Ms. Young, are you taking this one?

20 MS. YOUNG: Thank you, Judge Karlin.

21 The issue raised by this contention is
22 whether use of CHECWORKS is appropriate to determine
23 the scope and frequency of inspections to manage aging
24 effect caused by flow-accelerated corrosion.

25 Participants, however, have failed to

1 provide sufficient foundation for their contention.
2 They indicate that CHECWORKS is inadequate because it
3 is not properly benchmarked by 10 to 15 years of
4 inspection data.

5 However, the GALL Report indicates that
6 CHECWORKS was developed and benchmarked using data
7 from many plants, and that DMAL is used to identify
8 the most susceptible locations in a piping system.

9 To the extent that Dr. Hopenfeld may have
10 favorite models, and CHECWORKS apparently is not one
11 of them, if he does not provide sufficient information
12 to challenge the adequacy of CHECWORKS in terms of
13 supporting the foundation for this contention, the
14 contention must fail.

15 CHAIR KARLIN: Let's ask the same
16 question. I mean, you have pointed out the 10 to 15
17 years. If you take that out of the contention or the
18 discussion, it's not even in the words of the
19 contention, does it make a difference? Is there
20 support? There's more general concerns. Does he
21 provide some support for the concerns that it's not
22 benchmarked? I mean, I guess I have to go back to his
23 declaration and read it, and think about that, but 10
24 to 15 years seems to sort of jump out at you. Maybe
25 it's normal, and I've certainly heard people say that.

1 But even if we threw that out, is there some basis
2 there--not basis--wrong word.

3 Is there some supporting evidence, I
4 guess, you know?

5 MS. YOUNG: Well, again; when the staff
6 reads the contention and a pleading, particularly one
7 like NEC's, that was not particularly artfully
8 drafted, even though NEC is an experienced intervenor
9 in NRC proceedings, it looks again to see the
10 statement of the issue and the information provided in
11 support of the issue, because that information very
12 often is very revealing as to what the crux of the
13 issue is being raised by petitioners, and here, it was
14 clear that the concern is with respect to the adequacy
15 of the use of CHECWORKS for the license renewal
16 period, and that the only concern with respect to the
17 use of CHECWORKS was whether it was properly
18 benchmarked.

19 CHAIR KARLIN: Right; right. So far we're
20 in agreement. But what's the "big deal" about the 10
21 to 15--

22 MS. YOUNG: Okay. Having a general
23 concern about a computer model being benchmarked is
24 not sufficient to get an issue in a proceeding.

25 People have generalized concerns about all

1 sorts of things with respect to--they are valid safety
2 concerns. The staff is not contesting that. The
3 staff is contesting the sufficiency of the information
4 provided in support of the contention, and to the
5 extent that Dr. Hopenfeld relies on a depiction of the
6 number of years of data you need, when there's
7 information in the GALL Report that indicates that the
8 data was provided from many plants to benchmark this
9 computer model--

10 JUDGE WARDWELL: How many at the rates,
11 the power rates that Vermont Yankee is performing
12 under, was used in the GALL Report?

13 MS. YOUNG: Well, there have been several
14 extended power uprates before Vermont Yankee, so
15 again--

16 JUDGE WARDWELL: Before '93 when--wasn't
17 that the approximate time--

18 MS. YOUNG: Well, again, any computer
19 model used is continually benchmarked. You heard that
20 from Mr. Travieso-Diazo.

21 JUDGE WARDWELL: Right. I'm just asking
22 in regards to the GALL Report. You were saying that
23 it was calibrated over a number of years prior to its
24 issuance--

25 MS. YOUNG: Well, I didn't say number of

1 years. I said data from many plants. I am not
2 familiar with the exact number of years. I'm just
3 saying, you know, CHECWORKS use for Vermont Yankee as
4 proposed in the application, you know, on its face is
5 not insufficient just because an expert has a favorite
6 model and CHECWORKS is not it.

7 You know, to the extent that he's saying
8 that a certain amount of data is needed to probably
9 benchmark the model, experts can disagree, reasonable
10 minds can differ. He has to provide information to
11 support his contention that, you know, the computer
12 model is insufficient, and he hasn't done that.

13 JUDGE WARDWELL: Well, you know, the
14 drawing line of that is subject of course, depending
15 upon the weight you place upon a particular expert,
16 and if an expert feels they don't have enough
17 experience base, then in fact they may provide more
18 information or less, depending upon their experience
19 base.

20 For instance, if NEC had hired the person
21 who wrote this model, and that person said, oh, it
22 would take 10 to 15 years to calibrate it, that
23 certainly has a different weight than if you happened
24 to say it or I happened to say it.

25 And so we're in this continuum where we

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1 have to draw the line of when in fact a statement like
2 that, from an expert, is sufficient enough, or whether
3 it needs more amplification.

4 In some cases it does; in some cases it
5 doesn't. Isn't that a fair assessment?

6 MS. YOUNG: I would disagree with you to
7 the extent any statement that's provided in support of
8 petitioner intervening, the staff is going to examine
9 whether there's been a basis for the statement
10 made.

11 JUDGE WARDWELL: And you would say that if
12 the person who wrote and calibrated and--

13 MS. YOUNG: Even if Albert Einstein were
14 to walk in this room and give an opinion on an issue,
15 the staff would want to know what is the basis for the
16 opinion. It has to be a reasoned basis. Otherwise,
17 there's no ability--

18 JUDGE WARDWELL: I don't think that's
19 supportive in regards to admissibility of contentions,
20 in my opinion.

21 CHAIR KARLIN: You don't mean basis. You
22 don't mean basis.

23 MS. YOUNG: Well, you do need basis to the
24 extent that there's years of Commission case law
25 talking about basis and specificity for a concern and

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1 if the concern is that the computer model is not
2 adequately benchmarked, and the information supporting
3 that concern is a general allegation of a period of
4 time that's needed to benchmark the model, without
5 information as to why those years are sufficient, or,
6 you know, what the problems are with the model, that
7 information is not in the petition.

8 Petitioners have that obligation. The
9 staff cannot use a divining rod and decide what the
10 foundation is for a concern when it's not stated.

11 JUDGE WARDWELL: Doesn't that position,
12 though, just--I don't know what the right word is--
13 belittle or deemphasize the need for experts because
14 you're saying that, in fact, regardless of what an
15 expert is going to say in regards to a professional
16 opinion, if they don't go then and back it up with
17 something, references, etcetera, or whatever they want
18 to say, they're pretty limited in providing subjective
19 statements in regards to a particular situation that's
20 based on all their years of experience, education,
21 training, etcetera.

22 And I would like to hear what people say
23 on that and you seem to belittle that.

24 MS. YOUNG: I don't belittle Dr.
25 Hopenfeld's experience. He used to work for the NRC,

1 I understand.

2 JUDGE WARDWELL: Albert might take
3 offense.

4 MS. YOUNG: Well, Albert can roll over in
5 his grave. But there are things that--you know,
6 statements are made in support of contentions and
7 there are NRC's pleading requirements, which have
8 gotten stricter over the years, and to the extent that
9 the Commission is asserting those pleading
10 requirements, the requirement to defer to expert
11 opinion in fact for documents, those expert opinions
12 even have to have a foundation for the statements
13 made.

14 Reasonable minds should be able to read a
15 document and be able to discern what is the basis for
16 the opinion given, not just looking at the credentials
17 of the person who gave the opinion.

18 CHAIR KARLIN: Well, if I may jump in.
19 The contention pleading requirements require to
20 provide a brief explanation of the basis for the
21 contention. As I understand that, that means you
22 provide a brief explanation of the logic, the
23 thinking, the rationale for the contention. So basis
24 means logic, rationale, that sort of thing. And they
25 have done that, certainly--their logic.

1 The question, it seems to me, is whether
2 they have provided, in five, a concise statement of
3 the alleged facts or expert's opinion which support,
4 or six, provide sufficient information to show there's
5 a genuine dispute. They provided an expert opinion.
6 The question is whether the expert opinion is good
7 enough. There is this, you know, issue as to whether
8 it's good enough.

9 I would just go to the concrete--what he
10 says in paragraph 24.

11 The theoretical basis of a fact is not
12 completely understood. However, it is well-
13 established that turbulence, intensity, steam quality,
14 material composition, oxygen content, ph, etcetera,
15 are main variables. CHECWORKS computer code is not a
16 mechanistic code. It's an empirical code, must be
17 updated continuously, plant-specific data.

18 I don't know whether that's true but he's
19 saying this. He's an expert.

20 Inspection results are routinely used as
21 inputs to the codes. The codes can be used to predict
22 wall thinning, plant parameters. As long as plant
23 parameters do not change drastically.

24 However, you know, it is important to
25 realize that wall thinning rate from FAC is not

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1 necessarily constant with time and therefore a
2 variable, considerable number of cycles are needed,
3 blah to blah.

4 Since Vermont Yankee has recently
5 increased flow uprate by 20 percent, you know, this
6 thing needs to be benchmarked.

7 I mean, he seems to have given some
8 factual support to get him to the proposition it needs
9 to be benchmarked.

10 And it will take 10 to 15 years. Well,
11 maybe we throw that out and still got some rationale
12 there. It's not bald, it's not just--whoop--this
13 needs to be benchmarked. He's giving his reasons, why
14 it needs to be benchmarked, and he's an expert.

15 MS. YOUNG: But where is the information
16 the petitioner suggests that the CHECWORKS model will
17 not be benchmarked? They haven't provided that
18 information. You heard it from the licensee, that
19 even through the remaining period for the current
20 licensing term, they'll be continually collecting data
21 that they will use to benchmark CHECWORKS.

22 CHAIR KARLIN: Well, that may be a factual
23 contention then that says, well, we are benchmarking
24 it, but he's saying it needs to, and I'm saying that
25 seems like it gives a concise statement of his opinion

1 and his reasons for his opinion. It's not a big long
2 one. You know, it's not detailed.

3 MS. YOUNG: So you're having a hearing on
4 whether CHECWORKS needs to be benchmarked? The
5 concern is that CHECWORKS--

6 CHAIR KARLIN: I guess so.

7 MS. YOUNG: --the data available for use
8 for CHECWORKS isn't sufficient because he claims that
9 10 to 15 years are needed to do it, and he knows that
10 in terms of the remaining renewal period, there aren't
11 10 to 15 years of inspection data.

12 CHAIR KARLIN: Is it adequate? Maybe
13 there's a summary judgment disposition available later
14 when somebody says clearly, it's been benchmarked, it
15 is benchmarked, it's being benchmarked.

16 MR. RUND: Time.

17 CHAIR KARLIN: I hear that. I don't know
18 whether it's in the answer; maybe it is. Is there a
19 dispute here that it's adequately benchmarked?

20 MS. YOUNG: Staff suggests that there's
21 not a dispute with respect to whether it's adequately
22 benchmarked. To the extent that GALL mentioned that
23 it was benchmarked based on data compliance, you've
24 heard from licensee again, and people know about
25 computer models, that they are continually--to the

1 extent that this is an empirical model, it is always
2 updated and they haven't provided any information in
3 support of their contentions that challenges the use
4 of CHECWORKS.

5 CHAIR KARLIN: Okay; thanks.

6 Ms. Tyler. Ten minutes.

7 MS. TYLER: Though I think much of the
8 discussion over the last few minutes has focused on
9 whether Dr. Hopenfeld's expert opinion is good enough,
10 and what weight should be given to it, and I think
11 that fundamentally, that is the question that we would
12 address at a hearing.

13 He is an expert in the field. He's
14 offered his opinion that it would take 10 to 15 years
15 to benchmark the model and that the model has to be
16 benchmarked to conditions at this plant, and the
17 exploration of the validity of his opinion, of his
18 credentials, of his basis for offering his opinion, is
19 what we would do at the hearing.

20 I think that much of the rest of what was
21 discussed over the last few minutes also essentially
22 concerns other issues that we would explore at the
23 hearing.

24 I think that much of what Mr. Travieso-
25 Diaz discussed was essentially expert testimony of his

1 own. He talked about whether the examples that Dr.
2 Hopenfeld had offered are valid. Dr. Hopenfeld tells
3 me he doesn't agree with what Mr. Travieso-Diaz has
4 had to say, and this is certainly an issue that we
5 would explore at the hearing.

6 I'd also like to--oh, Mr. Travieso-Diaz
7 also suggested that Entergy could get nine years of
8 inspection data out of six years, and Dr. Hopenfeld
9 has just told me that he doesn't think that that's
10 true because the FAC phenomenon isn't linear, it's not
11 constantly timed, they can't squeeze nine years out of
12 six, so again--

13 CHAIR KARLIN: Well, if you start with six
14 years and you say you're going to inspect once a year,
15 and then you decide to inspect twice a year, don't you
16 get 12 years, then?

17 MS. TYLER: Dr. Hopenfeld--

18 CHAIR KARLIN: And if you inspect three
19 times, you get 18 years?

20 MS. TYLER: Dr. Hopenfeld has told me that
21 that is not the way it works.

22 CHAIR KARLIN: Okay.

23 MS. TYLER: That you have to inspect--

24 JUDGE WARDWELL: In fact, if you inspected
25 every day, would that give you 365 times six, 1800

1 years of data?

2 MS. TYLER: He has told me that, in fact,
3 no. If you inspected every day, it would not be the
4 same as inspecting for 300 years.

5 So again, I think Mr. Travieso-Diaz is
6 essentially testifying to a technical issue that we
7 really should explore at a hearing on the subject.

8 I also would like to address the question
9 of to what extent does the benchmarking of this model
10 really matter, given that they have a program that
11 also involves other approaches. And I think again
12 it's Dr. Hopenfeld's position that even if they do
13 have other approaches, the use of this model is an
14 important part of the program, and if the model isn't
15 valid, it's a significant issue that we need to
16 consider.

17 Dr. Hopenfeld also noted in his reply, in
18 our reply to Entergy's answer, the use of this model
19 requires expertise in the area, and, in his opinion,
20 the comments that Entergy made in its answer regarding
21 the technical issues don't reflect that expertise.

22 He doesn't agree that corrosion increases
23 in proportion to velocity or that looking at the
24 longest sections of the pipe is a valid way to
25 approach the problem, and these again are other issues

1 that we need to explore at a hearing.

2 JUDGE WARDWELL: Now NEC mentioned several
3 items--I'm going to look at the transcript of what
4 those are specifically--that they're using to monitor
5 FAC. Why aren't those comforting enough in regards to
6 this issue? Isn't that a demonstration, to a certain
7 degree, that CHECWORKS is only used as a tool that
8 isn't the only tool but one that is used just to look
9 at the regions of sensitivity, and then that helped
10 them define how to zero in on it and use all these
11 other techniques he talked about to get to the heart
12 of monitoring the actual problem areas? Why isn't
13 that sufficient?

14 MS. TYLER: I think it is a tool but it's
15 part of the program, they do rely on it, and Dr.
16 Hopenfeld thinks it's a major part of the program, and
17 if it doesn't work, that's a problem, even if they
18 have, you know, other aspects of the program as
19 well.

20 JUDGE WARDWELL: Yes, but a reasonable
21 person could take the position that, well, we've got
22 the six years of uprate to observe this, to help us
23 finer-tune CHECWORKS, but we don't really have to
24 fine-tune it because, again, it's a bounding model,
25 and we'll also have those years of the inspection

1 programs, and the items that he talked about. So we,
2 from a safety standpoint, pretty well have FAC under
3 control and properly managed. How would you refute
4 that?

5 MS. TYLER: I think that Entergy would say
6 that it's a bounding model and probably that it's,
7 quote, unquote, conservative. I think what we would
8 say is that if it's not working, if it's not properly
9 benchmarked, we don't know if it's conservative, and
10 we don't know if the bounding is where it should be,
11 and that's a problem.

12 JUDGE WARDWELL: Thank you.

13 CHAIR KARLIN: Is the problem with the
14 benchmarking the fact that there's a 20 percent
15 uprate, I mean, that this CHECWORKS model is fine and
16 dandy, but then, when you increase it by 20 percent,
17 this is what I hear being said, is now there's a
18 change, now we need to rebenchmark it or recalibrate
19 it in some way?

20 MS. TYLER: Yes. I think that's--

21 CHAIR KARLIN: Okay. All right.

22 MS. TYLER: Yes.

23 CHAIR KARLIN: I mean, I'm just wondering
24 whether that's a dramatic enough change. I mean,
25 aren't there changes that occur in the power at a

1 facility, or other operational changes that occur, you
2 don't rebenchmark everything every time there's a
3 change.

4 MS. TYLER: It's Dr. Hopenfeld's position
5 that the 20 percent power uprate is a major change,
6 major enough to require rebenchmarking of the model,
7 and this, again, is a technical issue that we could
8 explore at a hearing, along with a number of other
9 technical issues that we have talked about today.

10 JUDGE ELLEMAN: I have an impression of
11 where a period of 12 to 15 years might come from, to
12 calibrate or benchmark a model, and let me share my
13 comment and see if you think I'm on the right track.

14 Pipes do not thin quickly. It takes a
15 long time for a pipe to start corroding, and so, if
16 you're going to benchmark a model, you've got to
17 measure it over a period of time in which you detect
18 a finite change. So to do a 100 measurements in a 100
19 days doesn't really buy you anything at all. I see
20 your associate nodding, behind you.

21 And so the reason this long time
22 originates, in your judgment, is that the period you
23 need to see an effect?

24 MS. TYLER: Is that accurate? That's an
25 accurate--

1 JUDGE ELLEMAN: Okay; thank you.

2 CHAIR KARLIN: Anything else? I don't
3 think we have any other questions. Anything more?

4 MS. TYLER: Dr. Hopenfeld would like me to
5 emphasize, again, with respect to Entergy's plan to
6 concentrate on the longest pipe sections. In his
7 opinion is more of an issue at bent parts of the
8 pipes. Yes. That's where turbulence occurs. That
9 looking at the long, straight parts is not--why would
10 they do that? That's not really the most problematic
11 area.

12 CHAIR KARLIN: Okay. Thank you.

13 MS. TYLER: Thank you.

14 CHAIR KARLIN: All right. I think what
15 we'll do is take a break right now, and then attack
16 the remaining two contentions.

17 Let's call it about a ten minute break,
18 and we'll be back. Thank you.

19 [A recess was taken from 10:06 a.m. to
20 10:21 a.m.]

21 CHAIR KARLIN: Good morning, again.

22 I think we can now continue. We have the
23 two last contentions presented by New England
24 Coalition. Who's going to argue these? Ms. Tyler,
25 are you going to continue? Okay; great. And how much

1 time do you want to rebuttal?

2 MS. TYLER: I'd like to do half rebuttal
3 again. Ten.

4 CHAIR KARLIN: Very good. Okay; proceed.

5 MS. TYLER: So Contention 5 concerns the
6 fact that Entergy's application does not include a
7 plan to manage aging of the plant's condenser, and NEC
8 submits that it should. Entergy essentially says that
9 it's not necessary to monitor the condenser because as
10 long as it's functioning well enough to support the
11 normal operation of the plant, it's pretty much
12 fairly leak tight, and it would perform it's post-
13 accident function.

14 NEC's expert on the subject, technical
15 expert, Mr. Arnold Gundersen, disagrees with this
16 basic premise, and it's his opinion that it's possible
17 that the condenser could sustain significant damage at
18 the same time that due to an incident that also
19 triggered a design basis event in which the condenser
20 was necessary to perform its post-accident function,
21 and that this same event could damage the condenser
22 substantially enough, that it wouldn't perform its
23 post-accident function.

24 It's Mr. Gundersen's opinion that this is
25 particularly the case because the condenser at Vermont

1 Yankee is in extremely poor condition. He's reviewed
2 a number of documents that were produced in the EPU
3 proceeding.

4 I think one of them said that the
5 condenser at this point--and I think this is almost a
6 direct quote--is lucky to withstand gravity.
7 Entergy's consultant said that this condenser that's
8 lucky to withstand gravity would only last through
9 2012 if nothing unusual happened to it.

10 It's Mr. Gundersen's opinion that that
11 very unusual thing that would cause significant damage
12 to the condenser, cause it to collapse, essentially,
13 would also potentially trigger a design basis event.
14 That there could be a situation in which the condenser
15 was no longer able to perform its post-accident
16 function, and that function was necessary.

17 Entergy has said in its answer that their
18 opinion is all that NEC has shown, and this contention
19 is that it might eventually be necessary to replace
20 the condenser.

21 It's Mr. Gundersen's opinion that it might
22 be necessary to replace it very soon, based on the
23 documents that he's reviewed. NEC would like to know
24 how Entergy proposes to monitor and manage that
25 situation, so that the condenser is replaced before it

1 falls apart and is unable to perform its post-accident
2 function.

3 JUDGE WARDWELL: Why wouldn't the
4 performance of the condenser be indicated by its
5 ability to hold a vacuum during normal operations,
6 such that it would be a telltale, if there were any
7 impending problems as alleged by NEC?

8 MS. TYLER: That's Entergy's position,
9 that as long as it holds a vacuum it's pretty much
10 leak tight, and it's going to perform its post-
11 accident function.

12 Mr. Gundersen has explained basically
13 several scenarios in which a condenser that is in as
14 poor shape as this one is, which is, quote, unquote,
15 lucky to withstand gravity, could collapse while the
16 plant is operating, due to a transient that both
17 collapses the condenser--

18 JUDGE WARDWELL: What is this gravity
19 image? I mean, is this thing flying?

20 MS. TYLER: Based on the documents that
21 he's reviewed, he thinks it's in such poor shape that
22 it's about to fall apart. I think that's
23 fundamentally his opinion. He has suggested that
24 there are a number of circumstances that could create
25 this problem. He's offered the example of a full load

1 rejection at the plant, where the plant shuts down
2 suddenly. According to Mr. Gundersen, it shakes
3 violently when that happens.

4 That violent shaking could cause the
5 barely-able-to-withstand gravity condenser to collapse
6 at the same time that it triggered the design basis
7 event. You could then have a situation where there's
8 a release of radioactive gas and the condenser isn't
9 functioning, isn't able to perform its post-accident
10 function.

11 JUDGE WARDWELL: Was it your contention
12 that referenced the Grand Gulf implosion? I couldn't
13 remember, exactly, if it was yours.

14 MS. TYLER: He did mention an incident at
15 Grand Gulf. He's told me that that condenser
16 basically just imploded spontaneously while--

17 JUDGE WARDWELL: Was it during a transient
18 or--

19 MS. TYLER: Was it during a transient? It
20 wasn't, he says it wasn't during a transient, it just
21 collapsed, spontaneously, for no apparent reason, and
22 caused a design basis event.

23 JUDGE WARDWELL: Well, certainly it would--
24 -

25 MS. TYLER: So this is another

1 circumstance he's posited.

2 JUDGE WARDWELL: So that's a poor example,
3 isn't it, because that could happen at any
4 operational--that's just status quo. Any given plant,
5 in fact, has that potential for the condenser to fail.

6 MS. TYLER: Possible. Mr. Gundersen's
7 opinion is that we should be particularly concerned
8 about the condenser at Vermont Yankee because it's on
9 its last legs, and we need to be particularly careful
10 about monitoring its condition.

11 The third scenario Mr. Gundersen put
12 forward is a turbine disk breaking and falling on the
13 condenser, causing it to collapse, causing the
14 spontaneous shut-down of the plant, the shaking, the
15 design basis event and the release of gas.

16 So it's his opinion that just because this
17 old decrepit condenser is maintaining vacuum at the
18 moment, it's his position that that really doesn't
19 assure us that it would perform its post-accident
20 function, that because it's so old and decrepit, it
21 needs to be monitored, it needs an aging management
22 plan, and NEC's members and other members of the
23 public would like some assurance that Entergy is
24 concerned with this problem, and we'd like to know how
25 the decision would be made as far as when to replace

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1 the condenser, I think fundamentally.

2 JUDGE ELLEMAN: You stated that the
3 condenser is in bad shape in the contention, but we
4 don't really have any evidence of that.

5 What evidence do you have related to the
6 condition of the condenser?

7 MS. TYLER: There were a number of
8 documents produced as part of the extended power
9 uprate proceeding concerning the condition of the
10 condenser and its maintenance history. Mr. Gundersen
11 reviewed those documents and discusses them in his
12 declaration. I can't remember, at the moment, all the
13 details of it, but I think the overall picture is that
14 it was in pretty poor condition, that quite a bit of
15 maintenance had been recommended, that didn't appear
16 to have been performed. That Entergy's consultant
17 said that it was lucky to withstand gravity and that
18 it would only last until the end of the current term,
19 if nothing unusual happened to it.

20 CHAIR KARLIN: Well, I mean, all well and
21 good, but isn't Entergy's position that the condenser
22 is not a safety-related piece of equipment, and
23 they're saying if it fails, it is not relevant. It is
24 not going to be a safety issue.

25 I guess there's no plausible explanation

1 of how a condenser integrity would be suddenly lost in
2 an accident.

3 MS. TYLER: I don't think they've taken
4 the position that it doesn't have a safety function.
5 It does have--

6 CHAIR KARLIN: Well, they say it's not a
7 safety-related, I believe.

8 MS. TYLER: It has, as I understand it, a
9 safety function, in that if the main steam isolation
10 valves don't close completely, or even if they do
11 close, there's some percentage of leakage from them,
12 and under any circumstance the condenser is necessary
13 to I guess trap that radioactive gas that's released
14 from those valves. They call it--it's "Hold up and
15 Played out" function.

16 CHAIR KARLIN: "Hold up and Played out"
17 function. Isn't that something that you need to do in
18 a normal operation, not just in a major transient or
19 accident?

20 MS. TYLER: I think it does need to do it
21 during the plant's normal operation, but it
22 particularly needs to do it during a design basis
23 event, in which a larger quantity of radioactive gas
24 is released, in which the content of radioactivity is
25 higher.

1 CHAIR KARLIN: Right, but if it's not
2 doing it during normal operations, you're going to
3 find out pretty quick and you're going to do whatever
4 normal operational maintenance needs to be done.

5 MS. TYLER: I think you're stating
6 Entergy's position, that as long as its functioning at
7 the moment, as long as it holds vacuum, we should be
8 assured--

9 CHAIR KARLIN: Well, if it starts leaking,
10 you'll know it and you'll fix it.

11 MS. TYLER: Right. I think that's their
12 position. If it starts leaking, doesn't support the
13 normal operation of the plant, that's obvious, we fix
14 it, it it's no problem. But as I discussed earlier,
15 Mr. Gundersen has suggested a number of scenarios in
16 which it could be chugging along, no problem, and an
17 unusual event could cause it, particularly because
18 it's in such poor condition, to sustain substantial
19 damage, so that it couldn't perform the post-accident
20 function, and that the same incident could also
21 trigger a design basis event that released more
22 radioactive gas, or gas with a higher radioactive
23 content.

24 CHAIR KARLIN: Can you point me--

25 MR. RUND: One minute.

1 CHAIR KARLIN: Can you point me somewhere
2 in your pleadings that give me that. It says that but
3 can you give me a specific example of that.

4 MS. TYLER: Sure. Mr. Gundersen stated it
5 in general terms in his first declaration, and he
6 relied principally on the statements of Entergy's
7 consultant, that the condenser would last through
8 2012, if nothing unusual happened to it, suggesting
9 that if something unusual did happen to it, it would
10 be a problem.

11 CHAIR KARLIN: Well, we know that it's a
12 crummy condenser, let's posit that it's a crummy
13 condenser. The question is does it have anything to
14 do with the issue?

15 MS. TYLER: He suggested in his reply
16 declaration, he offered specific examples of the
17 circumstances that could create this problem, and I
18 ran through them a minute ago.

19 CHAIR KARLIN: In where? You're talking
20 about the reply?

21 MS. TYLER: In his reply declaration.

22 CHAIR KARLIN: I don't want to look at
23 that. Thank you.

24 MS. TYLER: Okay.

25 CHAIR KARLIN: Is anywhere in his direct

1 declaration?

2 MS. TYLER: In his direct declaration, he
3 explained the problem in general terms. In his reply
4 declaration--

5 MR. RUND: Time.

6 MS. TYLER: --he offered specific
7 examples.

8 CHAIR KARLIN: All right. Thank you.
9 Entergy. Mr. Travieso-Diaz.

10 MR. TRAVIESO-DIAZ: Yes. I believe that
11 this is a very simple contention and simple to dispose
12 of. The condenser at Vermont Yankee is not a safety-
13 related component. It doesn't fulfill any safety
14 function. It fulfills an accident-mitigating function
15 under one condition. If you have a loss of coolant
16 accident in which your mainstay isolation valves
17 close, and they have some leakage, there is going to
18 be some gas that drifts down to the condenser. In
19 that situation, the condenser acts--and think of it as
20 a big box--has a lot of volume to haul this gas in,
21 and has a lot of surface in which this gas can
22 actually become solid, is iodine gas.

23 As long as it has a big volume and a big
24 surface, unless you crush it to destroy it, it is
25 going to do exactly that.

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1 JUDGE WARDWELL: Help me wit this a little
2 bit because I do get confused a bit on safety-related
3 versus stuff that's really important in order to be
4 able to operate a plant safely. Somehow, that seems
5 to be a difference.

6 Let me give you some examples or
7 suggestions to help fix this in my mind.

8 It makes sense to me, in regards to what
9 NEC is saying, that any measurements of holding a
10 vacuum may indicate that the condenser's working, but
11 as soon as we stress it with an excessive load, that
12 might be enough, the "straw that breaks the camel's
13 back," that the condenser fails.

14 Wouldn't that have a chance of happening
15 during many, I'll call them "transients," and maybe
16 I'm using the wrong word, being a geotech groundwater
17 engineer, not a nuclear physicist--but like a steam
18 dump or a turbine trip, or any a those types of
19 conditions where, in fact, the plant would "be in a
20 pickle" if, in fact, their condenser didn't work,
21 cause it's the only heat sink available at that point?

22 MR. TRAVIESO-DIAZ: Well, let me just try
23 to clarify what the conditions are. One second.

24 One function that is critical for the
25 condenser to perform is in the situation--and this is

1 only for the computation of the doses to the public at
2 the boundary following a LOCA. That some of the
3 radiation that would escape from the leaking MSR/V
4 valves--

5 JUDGE WARDWELL: I'm aware of that.

6 MR. TRAVIESO-DIAZ: --wouldn't stay but
7 will go out to the boundary, and that some of that
8 will be trapped by the condenser. That's the whole
9 function that we have. Now if you have any situation,
10 either during normal operation or during one of the
11 anticipated transients, that your condenser, for some
12 reason, loses it's leak tightness, the plant will
13 shut down because it won't be able to maintain the
14 pressure. So that's what has happened.

15 In fact, in Grand Gulf, the examples that
16 are cited by NEC, there have been several situations
17 in one of the seals failed, a valve failed opening.
18 In any of those situations, you don't maintain the
19 pressure, and therefore you depressurize, you shut the
20 plant down, you deal with the condenser and you fix
21 it. that is the intended way in which the condenser
22 is used during the normal pressure--

23 JUDGE WARDWELL: And that particular
24 scenario does not need to be protected against in an
25 age management plan; is that correct?

1 MR. TRAVIESO-DIAZ: Correct, because you
2 will not have leakage or radiation because your MSRV
3 valve will close.

4 JUDGE WARDWELL: Thank you.

5 MR. TRAVIESO-DIAZ: Now, going forward,
6 the condenser is either going to work during normal
7 operation or it's not. If it doesn't maintain the
8 vacuum, you shut it down. I'm not going to argue the
9 condition of the condenser, obviously, because I will
10 get into the merits. I assure you that the condenser
11 is in much better shape than what Mr. Gundersen
12 claims.

13 But even if it were not, assume the
14 condenser is crummy, as you postulated, Judge Karlin.
15 As long as it's holding the vacuum, it means that it's
16 doing the function that it's intended to do during
17 normal operations, and if it doesn't do it, you shut
18 it down and you do whatever repairs you need. You may
19 be replacing it.

20 The only thing that happens with respect
21 to what the plant requires from the viewpoint of
22 potential age management is if there is a postulated
23 accident sequencing, would you need to relay to it for
24 some safety purpose. That sequence is defined. You
25 have a LOCA. Your MSRV may leak a little bit and you

1 want to have surface area on which to condense the
2 radioactive iodine that is coming out. Period; end of
3 sentence.

4 Now the accident sequences that Mr.
5 Gundersen postulated in his second affidavit, which by
6 the way we have moved to strike and I'm not going to
7 get into that--our accident sequences, he doesn't say
8 that if you have a brand new, spanking clean, perfect
9 condenser, and you hit it with a turbine blade, it is
10 not going to get destroyed all the same as an old
11 condenser is. My first point is that it doesn't seem
12 to make any difference for age management, whether you
13 have a condenser that is new or old, if you are going
14 to hit it with a moving turbine blade.

15 The second point is that those accidents
16 are not the design basis accident for which the
17 condenser is taking credit for doing its mitigation
18 function. Those accidents are not even within the
19 design basis of the plan.

20 It's a fanciful construct to claim your
21 turbine is going to throw this, one-third of it is
22 going to knock out a condenser and the rest of it is
23 going to create LOCA. That is not part of the design
24 basis of the plan.

25 But even if it were, is a condenser that

1 has been subjected to age management going to be able
2 to withstand a flying blade than the other? There is
3 not evidence by Mr. Gundersen as to that. Yes; go
4 ahead.

5 JUDGE ELLEMAN: If you had an event in
6 which fuel was damaged and fission products were being
7 released, and the condenser should actually fracture,
8 doesn't that then become a release path for
9 radioactivity out of the primary? And also, doesn't
10 that create a new flow path, so that the surface area
11 you're counting on to condense the fission products
12 isn't there and isn't available to you?

13 MR. TRAVIESO-DIAZ: Well, I don't know
14 what the flow paths for release of radioactivity will
15 be if you have a fuel accident. I really have no
16 answer to give you now because I don't know.

17 But, in fact, if you have that accident in
18 a situation which your condenser is in operation, and
19 radioactive iodine goes to the condenser, it will do
20 exactly what it is supposed to do in the case of a
21 LOCA. But you don't assume that you have a fuel
22 accident that destroys the condenser. There is no
23 basis for that.

24 So it's either going to lose function
25 because it has been working as it was intended to up

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1 to that point, or is not working as it's intended to,
2 it has been shut down. You cannot have both.

3 CHAIR KARLIN: So is that kind of what the
4 staff seems to say is, you know, either this is a
5 safety issue that addresses current licensing basis
6 problems, and therefore is that outside of the scope
7 of license renewal? Or they haven't specified a
8 particular problem that is within the scope? It's not
9 specific enough.

10 MR. TRAVIESO-DIAZ: Oh, I agree with that
11 and I put it just slightly different way, in addition
12 to what you said. If the accident scenarios that Mr.
13 Gundersen postulates are given any credibility, it
14 could happen today. It has nothing to do with license
15 renewal. It doesn't have anything to do with you.
16 You assume that there is going to be an accident
17 scenario which destroys the condenser, will destroy it
18 today, destroy it tomorrow, destroy it at any time.

19 CHAIR KARLIN: So are you saying that a
20 condenser is not something that needs to be subject to
21 aging management review?

22 MR. TRAVIESO-DIAZ: No, because contrary
23 to pipes, for example, that corrode, or suffer
24 fatigue, the condenser just sits there, and as long as
25 it's there, you can have the confidence that it is

1 going to perform the function of hauling the volume
2 and the surface. You don't need to manage its aging.

3 CHAIR KARLIN: Well, isn't that, the aging
4 management focuses on passive pieces of equipment like
5 the reactor vessel that just sits there, and--

6 MR. TRAVIESO-DIAZ: Yes.

7 CHAIR KARLIN: --could get old, could get
8 embrittled, could become weak?

9 MR. TRAVIESO-DIAZ: Yes, but those perform
10 a specific safety function that will be defeated.

11 CHAIR KARLIN: Okay. Any other questions.
12 Anything else?

13 MR. TRAVIESO-DIAZ: I don't think I have
14 anything else, unless you have questions.

15 CHAIR KARLIN: Okay; great. Thank you.
16 Staff, please.

17 MS. YOUNG: Thank you. The staff's
18 position, again, is that this contention fails to
19 raise an issue within the scope of the proceeding, or
20 if the concern is it can be construed as an issue
21 within the scope of the proceeding, it lacks an
22 adequately specific basis.

23 Petitioners have not provided information
24 to show that the condenser cannot perform it's post-
25 accident played out function. The condenser is just

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1 a large metal volume. They haven't provide
2 information to say that the walls of the condenser,
3 for example, would be degraded.

4 Most of the information that they have
5 relied on, using statements by Mr. Gundersen, seems to
6 have a genuine safety concern about the state of the
7 condenser with respect to the current licensing basis,
8 and to that extent, it's outside the scope of a
9 license renewal proceeding.

10 JUDGE WARDWELL: I'm curious on why it
11 wouldn't be a safety issue at BWR in regards to
12 release of radioactivity, if it failed under these
13 other transients, such as a steam dump or turbine trip
14 or the ones postulated by NEC, cause the steam would
15 get out at that point, if, in fact, it's lost its
16 integrity, wouldn't it?

17 MS. YOUNG: Well, I think the concern--

18 JUDGE WARDWELL: You wouldn't be able
19 create the vacuum. Sorry.

20 MS. YOUNG: The concern is with respect to
21 the post-accident played out function. I mean, there
22 are aging management programs which the staff
23 references in its response with respect to controlling
24 the condenser, but in terms of the post-accident
25 played out function it's just basically a piece of

1 metal in which radioactive gas would sit and the
2 radionuclides would place out. The metal would not
3 have to be totally--

4 JUDGE WARDWELL: Sure. I understand that.

5 MS. YOUNG: --corrosion free or defect
6 free for it to perform that function.

7 JUDGE WARDWELL: But you say there are
8 other age management--

9 MS. YOUNG: Yes.

10 JUDGE WARDWELL: --associated with a
11 condenser besides--

12 MS. YOUNG: But not the post-accident
13 cleanup function. There are age management programs
14 that affect the main condenser but in terms of this
15 particular function that petitioners are challenging,
16 there's not a specific program for that. But there
17 are other programs that are checking the integrity of
18 the condenser. Or to control.

19 JUDGE ELLEMAN: Does--

20 MS. YOUNG: Excuse me.

21 [Pause]

22 MS. YOUNG: The staff has nothing further
23 to add on this.

24 JUDGE ELLEMAN: Okay. Does the staff
25 concur with Entergy's contention, that a functioning

1 condenser is not necessary in the event of a fuel
2 accident that's releasing fission products into the
3 primary?

4 MS. YOUNG: I believe the only function
5 the condenser has to perform in that instance is to be
6 a large volume through which the radioactive gas could
7 plate out.

8 JUDGE ELLEMAN: And so you're saying no
9 heat removal capability of the condenser is required
10 in that event? It's only a surface for which fission
11 products are to deposit?

12 MS. YOUNG: Yes, I believe that that is
13 the only concern Petitioners have raised here with
14 respect to controlling radioactive gas release.

15 JUDGE ELLEMAN: Except with the leakage
16 from the main steam isolation valves; correct?

17 MS. YOUNG: Correct.

18 JUDGE ELLEMAN: Right. Because those I
19 assume would--I guess they assume those would close
20 during such a fuel problem.

21 MS. YOUNG: Yes. If there's a major
22 accident, this whole system would be isolated.

23 CHAIR KARLIN: Anything else from the
24 staff? Thank you.

25 Ms. Tyler, ten minutes for rebuttal.

1 MS. TYLER: I'd like to just quickly look
2 at the rules regarding scope because there's been some
3 discussion whether I guess the condenser is within the
4 scope of the proceeding and whether it should have an
5 aging management plan.

6 Rule 54.4 defines the scope and it
7 encompasses plant system structures and components,
8 going down to Part (a)(1) subpart (3), that have the
9 capability to prevent or mitigate the consequences of
10 accidents which could result in potential off-site
11 exposures. Okay.

12 So I think this pretty much encompasses
13 the condenser.

14 Then we skip over to Section 54.21, which
15 defines which structures and components are subject to
16 an aging management review, or requires that the
17 application identify them, and those have to include
18 structures that perform an intended function as
19 described in 54.4, which did include the condenser,
20 without moving parts, or without a change in
21 configuration or properties.

22 And then it lists a number of things that
23 are within that definition but it's not limited to
24 those things.

25 So I think it's clear, based on the rules,

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1 that the condenser is within the scope of the
2 proceeding and should have an aging management plan.

3 I'd also like to mention with respect to
4 the specific accident scenarios that Mr. Gundersen
5 mentioned in his reply, that at least the Grand Gulf
6 incident during which the condenser apparently
7 spontaneously imploded during plant operation, causing
8 a design basis incident, happened--this is a plant
9 that Entergy owns. This was public knowledge, and we
10 would submit that it wasn't necessarily necessary that
11 we mention this in our initial declaration because it
12 was Entergy's plant and they were fully aware of this
13 incident and of this possibility.

14 I would also note, finally, that even
15 under normal operation the condenser is credited with
16 this "Hold up and played out" function.

17 The condenser, even when the plant is
18 normally operating, is necessary to prevent illegal
19 levels of off-site release.

20 JUDGE ELLEMAN: Do you know what happened
21 when that condenser imploded at Grand Gulf? Didn't
22 the system shut down? Didn't the main steam isolation
23 vales close and reactor tripped, "scrammed," BWR.
24 Yes. See, I'm learning something about this stuff.
25 Use "scram" for BWRs and "trip" for BWRs. Well,

1 Westinghouse, anyhow.

2 MS. TYLER: So there was a minor off-site
3 release. The condenser walls collapsed. The system
4 was isolated. There was a minor off-site release.

5 JUDGE ELLEMAN: The pressure loss
6 triggered the closure of the isolation valves, I
7 assume.

8 MS. TYLER: Apparently; yes.

9 JUDGE ELLEMAN: Thank you.

10 JUDGE WARDWELL: Do you know if the Grand
11 Gulf implosion removed the available surface area for
12 condensing fission products in any way, in any future
13 events?

14 MS. TYLER: I guess on that subject, we'd
15 only note that the application itself says that the
16 condenser has to maintain its integrity in order to
17 perform its post-accident function. So I don't know
18 that Entergy itself has argued that if the condenser
19 collapses, it can still perform its post-accident
20 function. The application actually says that it has
21 to maintain integrity to perform its post-accident
22 function and that we can be assured of that if it's
23 holding vacuum during the normal plant operation, and
24 it's Mr. Gundersen's opinion that we're not assured of
25 that just because it's functioning normally at any

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1 given moment.

2 CHAIR KARLIN: Any other questions? I
3 think we're done, unless you want to say something
4 further, Ms. Tyler.

5 MS. TYLER: No. I think we're ready for
6 Contention 6.

7 CHAIR KARLIN: Okay. Let's just hold on
8 a second. We'll move to Contention 6.

9 Okay. You can proceed. Do you want ten
10 minutes for rebuttal? Same approach?

11 MS. TYLER: Yes.

12 CHAIR KARLIN: Okay. And when you start,
13 I mean on Contention 6, it seems to me there's a typo
14 on page 20 of your petition, and it's not a complete
15 thought in the statement of Contention 6.

16 "Primary containment corrosion including
17 but not limited to the dry well."

18 MS. TYLER: Yes. I think we didn't fully
19 state the subject of the contention in the topic line.
20 If you look at the next sentence, we say, "The
21 application doesn't include an adequate plan to
22 monitor and manage aging of the primary containment
23 boundary," and we're specifically concerned with
24 inaccessible portions of the dry well shell.

25 CHAIR KARLIN: Okay.

1 MS. TYLER: So that's the subject. We're
2 concerned with whether there's an adequate plan to
3 monitor aging of the dry well shell.

4 We're particularly concerned with areas
5 that are not and really cannot be visually inspected
6 because they're inaccessible, either below the sand
7 bed or in between the shell and the concrete
8 encasement.

9 I think the initial application as well as
10 the supplement to the application essentially contends
11 that there's no moisture problem, that moisture
12 doesn't ever come in contact with the dry well shell,
13 and we submit that the in-service inspection reports
14 indicate that this is not entirely the case.

15 We included in our original contention
16 several instances in which moisture and corrosion
17 problems were detected, and I would note that these
18 are examples but they're not the only examples.

19 We found other examples in I believe 2002
20 and 03 when paint blistering was discovered, which
21 also indicates, potentially, a moisture and corrosion
22 problem.

23 So I think fundamentally, we feel that the
24 application isn't credible in suggesting that there's
25 no moisture problem whatsoever, that, in fact, there

1 has been at least a moisture problem, to some degree,
2 and that there needs to be a more rigorous monitoring
3 program of the shell to address this situation.

4 JUDGE WARDWELL: Do you know if the space
5 between the drywell and the concrete is pressurized,
6 vaccumized, or open to the atmosphere?

7 MS. TYLER: Atmospheric, we believe.

8 JUDGE WARDWELL: That being the case, how
9 would any moisture remain there? It seems to me it'd
10 be driven off by the temperature.

11 MS. TYLER: We believe that as any
12 moisture that got into that area evaporated, the salts
13 in it would cause corrosion, and, you know, I think
14 Entergy's application indicates that--I don't think
15 they've contended that it's not a problem if moisture
16 comes in contact with the shell.

17 They've contended essentially that it
18 never does, and these inspection reports are
19 inconsistent with that assertion.

20 JUDGE WARDWELL: Thank you. Is your
21 contention based on the 5-15 submittal, or have you
22 full incorporated that into your original petition,
23 when you wrote--

24 MS. TYLER: We hadn't reviewed it at the
25 time that we wrote the initial petition. We have

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1 reviewed it subsequently, and we don't feel that it
2 adds a great deal of information. Essentially, it
3 describes some of the plant operating experience and
4 actions taken to prevent corrosion. It also indicates
5 that they've performed UT examinations at the sand
6 cushioned region, purportedly found not detectible
7 loss of thickness, and on that basis projected that
8 there would be no problem during the extended period
9 of operation, and NEC would like to see more, we would
10 like a more substantive, comprehensive monitoring
11 program such as has been implemented at the Oyster
12 Creek plant, for instance.

13 CHAIR KARLIN: Well, on that point, I was
14 a bit surprised, Entergy answer came forth to
15 reference to the May 15th, 06 amendment to their
16 license renewal application, and your contention was
17 due on May 26th, I think. So it was pretty close, and
18 I didn't see where your--your original contention
19 never referred to the May 15th.

20 MS. TYLER: We acknowledged--

21 CHAIR KARLIN: I mean, if it came in too
22 late, I would have expected you to say, well, we want
23 to amend our contention, let's give you some--you
24 know--please ask for an amendment of the contention.
25 You didn't do that.

1 MS. TYLER: The amendment was posted prior
2 to the deadline for the filing of our contention, ten
3 days--

4 CHAIR KARLIN: Right. But it was pretty
5 close.

6 MS. TYLER: It was ten days before and we
7 weren't aware of it.

8 CHAIR KARLIN: You were not?

9 MS. TYLER: No.

10 CHAIR KARLIN: You were not aware of--

11 MS. TYLER: So no, we had not reviewed it
12 before we filed our petition.

13 CHAIR KARLIN: Okay.

14 MS. TYLER: But we have now.

15 CHAIR KARLIN: But you didn't ask for
16 amendment or late filed, what they call "late filed."

17 MS. TYLER: Our client has just told me
18 that he doesn't think that the amendment was posted to
19 Adams until after the deadline for our contention
20 filing.

21 CHAIR KARLIN: Well, that's perhaps a
22 verifiable fact we can determine but you would think
23 you would have said that in your answer, because they
24 try to, you know, kind of give you--it's a good
25 response, that they seem to have said we've taken care

1 of that in the amendment that we filed on May 15th.
2 Didn't they even bother to look at it?

3 And my reaction was, well, maybe it came
4 in too late and you didn't see it. But you didn't say
5 that. You just said, well, that's not a problem.
6 What about the guidance? We have the staff guidance
7 that came out on May 9th, I guess, in the Federal
8 Register.

9 I don't know whether we're going to hear
10 that but is this something that's being handled on a
11 generic basis and therefore cannot be the legitimate
12 subject of a contention?

13 MS. TYLER: I think the staff is
14 considering addressing this problem on a general basis
15 because the NRC staff has recognized that this is
16 potentially an important issue that should be
17 addressed at all plants with respect to license
18 renewal. That hasn't been done at this point. The
19 guidance is proposed but not final.

20 JUDGE WARDWELL: And would this be all
21 plants or just all BWR plants with Mark 1 containment?

22 MS. TYLER: I think it would just be BWR
23 plants. So pending the development of this generic
24 guidance, which I'm not sure what the timeline for
25 that is, but this relicensure shouldn't--this renewed

1 license shouldn't issue without consideration of this
2 issue, assuming that this generic guidance perhaps
3 won't be finalized until--I don't know how long it
4 will take. It could take years, I imagine.

5 CHAIR KARLIN: Okay. Any other questions?
6 All right. Thank you.

7 We can move along to Entergy. Mr.
8 Travieso-Diaz.

9 MR. TRAVIESO-DIAZ: This contention,
10 unlike others that NEC has put forward, is not
11 supported by the statement of one expert. This is all
12 NEC's concoction, if you will. It's based on two
13 things, two documents.

14 The first document is actually two ISI
15 inspection reports to which I'll speak for a second,
16 and the second is the draft guidance that the NRC
17 issued for comment. I'll address both of them, but
18 that is the sum total of the basis, if you will, for
19 this contention.

20 The contention, even though as you pointed
21 out, is somewhat inarticulately stated, it addresses,
22 and Ms. Tyler confirmed that, the area, the potential
23 existence of corrosion in the area--and maybe I should
24 explain what we're talking about here.

25 The dry well shell is made of stainless

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1 steel. On the one side--well, it's encased in
2 concrete, so it has an inner side and it has--I'm
3 sorry, carbon steel--and it has an outer side. The
4 concern that Ms. Tyler has expressed, and I'm going to
5 read what they said, is "Entergy offers no evidence
6 that would exclude the presence of moisture at the
7 sand cushion or concrete encasement interface with the
8 dry well shell. That is outside, the outside surface
9 of the shell is encased as a ring of sand and she
10 claims that we have provided no evidence that moisture
11 won't get in there.

12 However, the two documents that they cite,
13 which are the same condition, are ISI inspections that
14 were performed at Vermont Yankee, looking at the
15 interior, interior of the shell, and they detect the
16 corrosion because one of the elements that would have
17 essentially blocked out the presence of moisture was
18 missing, and it took quite a number of years for some
19 corrosion to develop.

20 It was ascertained in the normal course of
21 inspections, it was fixed, and the amount of corrosion
22 was insignificant.

23 So that is the document they are referring
24 to, and I begin by telling you that they are
25 absolutely irrelevant because the concern is with

1 potential corrosion and leakage on the outside. The
2 inside of the containment is pressurized. So it is
3 corrosion is going to be inhibited there, and it's
4 mostly available for inspection and it is inspected at
5 regular intervals.

6 CHAIR KARLIN: May I ask, do you point
7 that interior/exterior point out in your answer
8 somewhere?

9 MR. TRAVIESO-DIAZ: Yes; we do. Yes; we
10 do.

11 CHAIR KARLIN: What page can I find that?

12 MR. TRAVIESO-DIAZ: If you'll give me a
13 second. I'll get back to you in a second, just to
14 save time.

15 CHAIR KARLIN: All right. That would be
16 helpful.

17 MR. TRAVIESO-DIAZ: Yes; but we do point
18 that out.

19 Second is they say you don't have a
20 program. In fact, amendment two to the license
21 application does have a program. And they maybe
22 didn't see it when they filed the original contention
23 but they filed a reply, and in the reply they did not
24 contest the program that we have in place, which I
25 could describe for you. They said, well, we would

1 like to see more, how your ultrasonic thickness tests
2 were conducted.

3 Well, a contention is not necessarily we
4 would like to see more. You have to point out to a
5 deficiency that you allege exists. There is no
6 allegation that there is a deficiency with the
7 ultrasonic testing, thickness testing that is being
8 done, or any of the other elements of the program.

9 You cannot create a contention out of thin
10 air. In fact, there is no basis for contesting our
11 program and there is no basis for claiming that it is
12 not sufficient to prevent corrosion.

13 I'll say more. The program that the NR--
14 the other leg of their argument is that the interim
15 guidance that is out for comment. That interim
16 guidance is again directed at concerns about potential
17 water accumulation and corrosion on the outside of the
18 dry well shell for containment.

19 It starts by saying you need to determine
20 what corrosion you have and predict a corrosion rate,
21 and see if it matches your expectation. Well, Vermont
22 Yankee has done that, and, in fact, in the amendment
23 to the application we explain what we have done. We
24 found no corrosion, so therefore there's nothing to
25 extrapolate. The program that the interim guidance

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1 postulates does not apply to Vermont Yankee only
2 because there has been no detectible corrosion.

3 There have been inspections, the
4 inspections were done in '87 when the program was
5 first formulated. No corrosion was detected.

6 JUDGE WARDWELL: How do you handle or
7 address the inaccessible areas? Isn't that a
8 challenge, for any plant to deal with those areas?

9 Because certainly you're not inspecting,
10 you don't have clear visual observations of the entire
11 dry well metal shell.

12 MR. TRAVIESO-DIAZ: Well, the interim
13 staff guidance in fact doesn't require you to inspect
14 and don't require you to extrapolate from where you
15 have measured. Well, actually, they do plant--the
16 Entergy plan does plan to do inspections of those
17 inaccessible areas, not all the time, but every ten
18 years, they are going to remove the sand cushion and
19 look at it, and see if there is any evidence that
20 there is corrosion there.

21 Moreover, and I think this is important
22 for the board to understand, all the mechanisms
23 whereby water could leak into that area in between the
24 dry well shell and the concrete, all those areas from
25 where leakage would come in, they're all provided with

1 drains and the water goes some place else.

2 In fact, when the sand has been inspected,
3 it has been determined to be dry. The sand has eight,
4 eight elements of drains, that if water ultimately
5 goes down there, it goes out.

6 During refueling operations, the operators
7 walk the plant--this is all said in the amendment, I'm
8 not making it up. The operators walk the containment
9 just to make sure there is no leakage.

10 In fact there is no detected leakage or
11 corrosion that has been experienced at Vermont Yankee
12 in this area. This was reported in other plants that
13 have other mechanisms for controlling corrosion were
14 not enough, but it is not a problem for us. There is
15 no basis--no, I shouldn't say this, no basis. There
16 is no support for the allegation because the documents
17 they cite don't support it, are irrelevant, and the
18 guidance that the cite is neither final nor applicable
19 to Vermont Yankee because, simply, we just don't have
20 it.

21 CHAIR KARLIN: And those inspections,
22 those still take place at finite locations in the
23 sand. It's not around the whole perimeter; correct?

24 MR. TRAVIESO-DIAZ: Yes.

25 CHAIR KARLIN: You have access points that

1 allow you to look at specific areas but not the entire
2 perimeter; correct?

3 MR. TRAVIESO-DIAZ: Is correct, and it is
4 explained, in great detail, in the amendment to the
5 application. I could go into it, if you want but--

6 CHAIR KARLIN: No. I just wanted to make
7 sure you didn't have a really thin guy that can walk
8 around inside that two-inch area.

9 MR. TRAVIESO-DIAZ: We have people of all
10 sizes to expect all kind of locations like inside
11 there.

12 JUDGE ELLEMAN: On some of the other
13 contentions, you gave an indication of your plan to
14 monitor or look at the possibility of corrosion but
15 you have not elected to do that here. But you're
16 telling us now, you do have some kind of a plan by
17 which you're going to monitor thickness and corrosion?

18 MR. TRAVIESO-DIAZ: Yes; exactly. That's
19 amendment to the application. It has a plan, well-
20 defined plan of inspections and measurements.

21 JUDGE WARDWELL: That's your 5-15-06
22 amendment.

23 MR. TRAVIESO-DIAZ: Exactly; yes. And
24 quite frankly, NEC has not challenged that either
25 before, because they didn't know about it, or

1 afterwards, when they did know about it. All they say
2 is that we'd like to see more. Well, that's not a
3 basis for a contention. They have to say what portion
4 of the plan is no good.

5 CHAIR KARLIN: Now in part of your answer
6 on page 43, you talk about--well, there's a discussion
7 on 42 about the 1999 inspection report, and that I
8 guess the upshot is that the thickness of the plate
9 was 2.5 inches, and the pit depth maximum was 1/16th
10 of an inch.

11 Could you talk about that a little bit.
12 That sounds like a very, very small amount of
13 corrosion, given the 2.5 inch thickness of this piece
14 of steel or something.

15 MR. TRAVIESO-DIAZ: Let me talk about that
16 for a second. First, remember, this is corrosion
17 inside, not outside.

18 The corrosion would develop--

19 CHAIR KARLIN: It's inside. It's inside.

20 MR. TRAVIESO-DIAZ: Inside; inside.

21 CHAIR KARLIN: Okay.

22 MR. TRAVIESO-DIAZ: So it's totally
23 irrelevant. In fact, if you take a look, we say that
24 in the quote on page 43, on top.

25 CHAIR KARLIN: Forty-three is where?

1 Right where we're looking right now. That's where it
2 says it's inside versus outside?

3 MR. TRAVIESO-DIAZ: Yes; correct.

4 CHAIR KARLIN: All right. Where, on
5 forty-three? In that quote?

6 MR. TRAVIESO-DIAZ: In that quote at the
7 beginning it says--

8 CHAIR KARLIN: "Dry well shell interior."

9 MR. TRAVIESO-DIAZ: Interior. Okay.
10 That's what we're talking about.

11 CHAIR KARLIN: "Concrete--okay. That's
12 the inspection, 1999 inspection.

13 MR. TRAVIESO-DIAZ: Yes. Now you need to
14 understand, the 1999 inspection and the 2001
15 inspection referred to the same problem at the same
16 location. They just didn't get around to fixing it
17 until 2001. And the reason--well, in the process of
18 doing it, they measured how much corrosion had taken
19 place, and it was an insignificant amount of
20 corrosion. It would have been years that the
21 condition had been in place.

22 CHAIR KARLIN: So this would have been for
23 the entire life span of the vessel or something?

24 MR. TRAVIESO-DIAZ: Well, we don't know--

25 CHAIR KARLIN: How many years are we

1 talking about?

2 MR. TRAVIESO-DIAZ: We don't know when it
3 happened. But we do know when it was detected, and it
4 was detected first in 1991, and between '92 and--
5 supposedly happened just in 1991. Between 1992 and
6 2001, there have been only .16 inch corrosion. So
7 it's very slow process. The containment inside is
8 inerted. So corrosion is not going to progress fast.

9 CHAIR KARLIN: And it's 1/16th of an inch,
10 not point one six. One-sixteenth.

11 MR. TRAVIESO-DIAZ: What did I say?

12 CHAIR KARLIN: Yes. You said it more. So
13 it's less than what you--okay.

14 Any other questions?

15 All right. Thank you; thank you.

16 Oh, I guess I did have a question.

17 Why aren't we hearing you say that this is
18 being handled on a generic basis, and therefore, it's
19 not a permissible type of contention?

20 MR. TRAVIESO-DIAZ: Well, first, because
21 it's not been handled yet. This is interim guidance
22 that hasn't come out. The plan, what the NRC will
23 use, once and if they come out with guidance, they
24 will define to whom it applies.

25 Assuming it applies to everybody who has

1 a Mark 1, it will be generic, and whatever NRC
2 recommends that Entergy do, we'll do.

3 CHAIR KARLIN: And this is just going to
4 be staff guidance, so I guess it's not perhaps the
5 same as the Commission handling something generically.
6 Maybe that's the distinction.

7 MR. TRAVIESO-DIAZ: Well, we take the
8 guidance seriously of course but in any event, in any
9 event, if and when guidance comes, and if it's
10 applicable to Entergy's plant, and if in fact it shows
11 that something more needs to be done, it will be done.
12 But it's impossible to speculate now what the NRC
13 staff is going to require and whether it's going to be
14 applicable.

15 CHAIR KARLIN: Okay. Thanks. Thank you.

16 Ms. Young. Staff.

17 MS. YOUNG: Thank you.

18 CHAIR KARLIN: We're almost done here.

19 MS. YOUNG: I'll try to make it short.

20 The staff had objected to the admission of
21 this contention because it did not raise a genuine
22 dispute with the application. That was in part
23 because Petitioners apparently were not aware of the
24 supplement to the application that provided additional
25 information concerning the lower dry well, and

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1 indications that there was no discernible loss of
2 thickness.

3 My information is that that submittal did
4 not become public in Adams until around May 26th-ish.

5 CHAIR KARLIN: Oh, okay. So--

6 MS. YOUNG: Maybe the day before or the
7 day of. So it might have been difficult for them--

8 CHAIR KARLIN: So they may be right, in
9 that it might not have been published or--

10 MS. YOUNG: Certainly. But it is accurate
11 to state that they did not adequately and squarely
12 address the contents of that submittal in their reply.
13 So to that extent, they have not shown a genuine
14 dispute with the applicant, and merely that the staff
15 has this generic program for Mark 1 steel containment
16 dry well shells, the guidance that the staff published
17 in the Federal Register does not publish a basis, by
18 itself, for the Petitioners' contention.

19 CHAIR KARLIN: Right.

20 Any questions from my colleagues? I have
21 one but it doesn't need to be asked. So we'll move
22 on.

23 Ms. Tyler, I think we're ready for your
24 rebuttal, please.

25 MS. TYLER: Well I think I'll just keep

1 this short. I think the crux of it from out point of
2 view is that the NRC has recognized this is a problem
3 with the boiling water reactors. It might be handled
4 on a generic basis and it might not.

5 The staff's concern validates our concern
6 that this is a problem that should be considered
7 specifically at Vermont Yankee. We're concerned,
8 again, that the application appears to exclude the
9 presence of moisture but the inspection history
10 indicates that it's not fully excluded, be it on the
11 inside or the outside, there is moisture, and that
12 that's in conflict with what the application appears
13 to contend.

14 This is an issue that should be considered
15 in this proceeding.

16 CHAIR KARLIN: Okay. Any questions? I
17 think we've covered it in your initial presentation.
18 I don't think that I have any further questions.

19 I think that concludes our review of ten
20 of the eleven contentions that have been presented.
21 I'm going to ask one last moment.

22 Is there anything else that any of the
23 parties think urgently need to be brought up at this
24 time? Otherwise, we're going to close the proceeding.

25 MS. YOUNG: I do have a short question,

1 Judge Karlin.

2 CHAIR KARLIN: Yes. Ms. Young.

3 MS. YOUNG: It's not really with respect
4 to the argument today. The Petitioners have engaged
5 in a practice of submitting their pleadings with cover
6 letters. Did judge have any guidance on that point,
7 because NRC practice, we normally don't do that. We
8 just submit the pleading itself.

9 CHAIR KARLIN: Right. Well, if there's a
10 brief one-page transmittal cover letter, I'm not
11 offended. But I think what we don't want to get into
12 is letters which send material to us for our
13 information. If it's a pleading and it has a cover
14 letter to it, I don't see that's a problem.

15 MS. YOUNG: Well, there have been cases in
16 NRC jurisprudence which talk about the obligations of
17 parties to alert the board of information when it
18 becomes available. I believe this is **Maguire**, and
19 offhand, I can't remember, at the time, and I know
20 that, you know, to the extent the rules have been
21 revised recently to talk about the mandatory
22 disclosures and the hearing files, that the
23 obligations of parties may be, you know, somewhat
24 muddled, so it's not clear necessarily to all the
25 participants, when and when they should not submit

1 information to you, you know, given that there's no
2 mandatory disclosure or hearing file obligation until
3 the admission of a petition.

4 CHAIR KARLIN: Well, I understand there
5 could be some confusion. I would start with reference
6 to Federal Rule of Civil Procedure 15 (d) that talks
7 about supplemental pleadings.

8 I mean, I think what's "good for the goose
9 is good for the gander." If we're going to have
10 supplemental pleadings, then maybe the Petitioners
11 should get to supplement their contentions too, and
12 then we'd be in a big muddle, given the NRC
13 regulation. So at this stage, unless there's a major
14 decision that comes down while these contentions are
15 pending, like the San Luis Obispo Mothers For Peace,
16 we would like to know about that.

17 But other than that, if someone file an
18 amendment to the license renewal application,
19 amendment number 23, we don't want to just get that as
20 a FYI, you want to read this 300-page document. We
21 don't know what to do with that.

22 So if contentions are admitted, then we'll
23 be having the mandatory disclosures, as you say.

24 But I would say generally, try to avoid
25 that, and we don't look for letters to the board. We

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1 want pleadings.

2 MS. YOUNG: Certainly. I think also
3 parties sometimes feel obliged to make sure that the
4 participants in a proceeding are aware of developments
5 in the proceeding, and to make sure that the clock
6 starts running based on publication of certain
7 documents. You know, to the extent that there are
8 delays in processing things in Adams, for example,
9 which we had with respect to the May 15th submittal of
10 an applicant.

11 So I mean, there are a lot of reasons for
12 sending a letter to the judges. It may not just be so
13 the judge is aware; it could also be so the other
14 party is aware.

15 CHAIR KARLIN: Well, you can send it to
16 the other parties, if you want to make sure they have
17 a notice of something. But, you know, just as in
18 discovery, the parties may exchange a lot of
19 information that we never see or want to see, really.
20 Unless there's something important you think we need
21 to take some action on, don't send it to us. Thanks.

22 Mr. Shems, something from you?

23 MR. SHEMS: A follow-up question, Your
24 Honor, if I may. To pick up on what Ms. Young was
25 just asking about, the specific scenario I'm concerned

1 about is that the permitting material, the NPDES
2 permitting material that Entergy filed on Friday, was
3 available the end of March, beginning of April at the
4 latest, and they amended the application on Friday, it
5 was struck from consideration in this proceeding, but
6 we now have a license amendment that formally says
7 that they're attaching this NPDES permit that's in
8 dispute as a 316 determination.

9 That was not the case when I filed our
10 initial contention, and so does that warrant a
11 supplement, or a new contention? If I could have some
12 guidance on the best way to proceed on that.

13 CHAIR KARLIN: In terms of filings with
14 us, we're going to rule based upon the pleadings that
15 are presented to us.

16 If you have some motion you want to make,
17 or anyone wants to make to supplement the pleadings,
18 they can move for leave to supplement the existing
19 pleadings, if some development occurs.

20 So you could make a motion, or Entergy
21 could make a motion, if they want some action from us,
22 that is, you want to move to supplement the pleadings
23 because some event has occurred and you will tell us
24 about that event. But it will be a motion.

25 Likewise, if you want to file a new or

1 amended contention, you would follow the rules
2 applicable to new or amended contentions. We're not
3 going to tell you when or how to do that. You know,
4 I think generally, you need to move pretty promptly,
5 if some event occurs, you have to move pretty quickly
6 within the time you, the public is made aware of it,
7 or you're aware of it.

8 Amended contentions, new contentions,
9 quote, late-filed contentions, whatever you want to
10 call them, they're, you know, 309 (f) (2), and 309 (c)
11 are the ones you'd look at for that.

12 MR. SHEMS: Thank you.

13 CHAIR KARLIN: Okay. Anything else?

14 Very good. I thank all of you for your
15 patience and your thoroughness. It's been helpful to
16 us. We're going to, you know, take this under
17 advisement, grapple with many of the issues, do some
18 further research and study, and try to come up, and
19 will come up with a decision as promptly as we can.

20 Thank you.; This proceeding is adjourned.

21 [Whereupon, at 11:20 a.m., the proceeding
22 was adjourned]

23

24

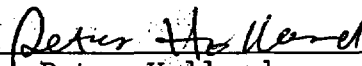
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CERTIFICATE

This is to certify that the attached proceedings before the United States Nuclear Regulatory Commission in the matter of:

Name of Proceeding: Entergy Nuclear Vermont
Yankee Nuclear Power Station
Oral Arguments
Docket Number: 50-271-LR and
Location: Brattleboro, VT

were held as herein appears, and that this is the original transcript thereof for the file of the United States Nuclear Regulatory Commission taken by me and, thereafter reduced to typewriting by me or under the direction of the court reporting company, and that the transcript is a true and accurate record of the foregoing proceedings.


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