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# OFFICIAL TRANSCRIPT OF PROCEEDINGS

## UNITED STATES OF AMERICA



## NUCLEAR REGULATORY COMMISSION



**Title:** PRE-HEARING CONFERENCE
NORTHEAST NUCLEAR POWER
STATION, UNIT NO. 3

**Case No.:** 50-423-LA-3

**Work Order No.:** ASB-300-1063

**LOCATION:** New London, CT

**DATE:** Monday, December 13, 1999

**PAGES:** 1 - 224

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BEFORE:

CHARLES BECHHOEFER, Chairman, ASLB

DR. CHARLES N. KELBER, ASLB

DR. RICHARD COLE, ASLB

APPEARANCES:

ON BEHALF OF NORTHEAST NUCLEAR ENERGY COMPANY:

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ON BEHALF OF CONNECTICUT COALITION AGAINST MILLSTONE

and THE LONG ISLAND COALITION AGAINST MILLSTONE

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ALSO PRESENT:

ANN P. HODGDON, Esq., NRC Staff

ROBERT WEISMAN, NRC Staff

DAVID DODSON, Millstone Unit 3

DAVID LOCHBAUM, Union of Concerned Scientists

DR. GORDON THOMPSON, Institute for Resource & Security Studies

JOHN NAKOSKI, Project Manager

VICTOR NERSES, Future Project Manager

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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In the Matter of: :

NORTHEAST NUCLEAR ENERGY COMPANY : Docket No. 50-423-LA3

(Millstone Nuclear Power Station, :

Unit No. 3 :

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Radisson Motel

35 Govenor Winthrop Blvd.

Ballroom 3

New London, Connecticut

Monday, December 13, 1999

The above-entitled matter came on for pre-hearing conference, pursuant to notice, at 9:00 a.m.

ANN RILEY & ASSOCIATES, LTD.
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1025 Connecticut Avenue, NW, Suite 1014
Washington, D.C. 20036
(202) 842-0034

PROCEEDINGS

[9:00 a.m.]

CHAIRMAN BECHHOEFER: Good morning, ladies and gentlemen. This is a pre-hearing conference in the matter of the proposed amendment to the license of -- license for the Millstone Unit 3 reactor, to expand the capacity of the spent fuel, short and long view of that.

This proceeding is being heard by the Atomic Safety and Licensing Board. I'll introduce the members. On my left is Dr. Charles Kelber. He's a nuclear physicist. And on my right is Dr. Richard Cole. He's an environmental engineer. And my name is Charles Bechhoefer and I'm Chairman of the Board and I'm an attorney. Before we start, I would like to have the parties and other petitioners, etc., introduce themselves for the benefit of the court reporter. I'll go from my left to right.

MR. REPKA: Yes. I'm David Repka with the law firm of Winston & Strawn and I'm counsel to Northeast Nuclear Energy Company. And on my right is David Dodson, who is a supervisor for Millstone Unit 3 licensing for Northeast Nuclear.

MS. BURTON: Good morning. I'm Attorney Nancy Burton and I'm here today representing the Connecticut Coalition Against Millstone and the Long Island Coalition Against Millstone. On my right is David Lochbaum, a nuclear

safety engineer with the Union of Concerned Scientists; and on my left is Dr. Gordon Thompson, who is Executive Director of the Institute for Resource and Security Studies.

MR. KELBER: Ms. Burton, check the microphones, because that's the court reporter's microphone. I can't -- I couldn't hear you too well.

MS. BURTON: Okay.

MR. KELBER: It's not that microphone. That's for the court reporter.

MS. BURTON: Oh, it's this; I see. Okay, this is for the reporter; this is for me to be heard.

MR. KELBER: That's much better.

MS. BURTON: Shall I start again?

MR. KELBER: No, that's fine. Thank you.

MS. BURTON: Thank you.

MS. HODGDON: I'm Ann Hodgdon from the NRC staff and with me on my right is Robert Weisman, also from the NRC staff. And I have with me today John Nakoski, sitting directly behind me. He is the project manager. And to his right is Victor Nerses, who will take Mr. Nakoski's place as project manager, after the first of the year.

CHAIRMAN BECHHOEFER: Before we get on the way, on Friday, a fax came in and it was initially -- it was directed to the Commission -- the Chairman of the Commission, Mr. Meserve, and it is from one of the local

Congressmen. And I was asked by the Chairman's office, to read the letter into the record. I had informed -- well, we had informed him that we weren't taking limited appearance statements at this session and we would receive them in writing and this is what this sent in for. But, the Chairman's office asked me to read this into the record. Does anybody have any problem with that? It's just a one-page letter from a Congressman, Michael Forbes.

MR. REPKA: We have no objection.

CHAIRMAN BECHHOEFER: It's not going to take very long. It says, "Dear Chairman Meserve: A Nuclear Regulatory Commission (NRC) Atomic Safety and Licensing Board," that's us, "pre-hearing conference in New London, Connecticut on Monday, December 13, will determine the standing of two important citizen groups opposed to an application by the Northeast Utilities to double its spent fuel capacity at Millstone 3 station. I oppose such expansion plans and, as you know, several years ago asked the NRC to close down the reactors after a checkered history and the absence of an evacuation plan for the people of Long Island."

"I write to urge approval of the Long Island Coalition Against Millstone and the Connecticut Coalition Against Millstone petitions for legal standing in all matters related to the Millstone Plants."

"As you know, I have long been in opposition to continued operation of the reactors at Millstone. The continued operation -- much less the expansion -- of the Millstone facility should be opposed for a variety of reasons. First, Millstone has incurred the largest single fine in the history of the United States nuclear power industry signifying a pattern of serious operational problems and a weak safety record. Second, in the event of a catastrophe, there is not an emergency management and evacuation plan for Suffolk County (NY) residents. Third, Millstone is clearly in close proximity to Long Island and any event involving the reactors there could likely affect this region."

"Due to its proximity, weak safety record and lack of an evacuation plan, the people of Long Island have a concrete and cognizable interest in the outcome of any proceedings involving the operation and/or expansion of Millstone and must be formally recognized for inclusion in all NRC proceedings regarding this facility."

"Almost two years ago, I was the first public official to initiate greater involvement by Long Islanders in the Millstone issue. You were most kind to grant my request that the NRC hold forums on Long Island on two occasions to listen to our concerns."

"I respectfully urge approval of the Long Island

and Connecticut Coalitions' petitions for legal standing to give voice to the concerns of our community."

"Sincerely, Michael Forbes, Member of Congress."

I might say, this is no more than a limited appearance statement. It doesn't have any evidentiary value. We know it exists. I don't have copies; but if somebody wants to make copies, they're welcome to have them." So, I might say this same letter came in earlier, but it was addressed to the wrong chairman -- it was to the former chairman, Chairman Janson -- so then it was sent again.

Well, with that -- with that, I'll get to the substantive matter. I believe that we should consider first the standing of the two petitioners and then move on to each of the proposed contentions -- so in that order. On standing, one of the briefs, there's no opposition to. We agree to the facts, we've had standing. But the other brief, the Long Island group, I read my papers as saying a little bit different from what they've been characterized as by the people opposing the Long Island group. I see in the affidavit that the representative says she lives part time on the site in question and that doesn't seem to have been recognized. And I inquire first, is that accurate? Am I reading it accurately? It may not be her major residence, but I read her affidavit as saying she lives there part

time.

MS. BURTON: May I respond?

CHAIRMAN BECHHOEFER: Yes, please.

MS. BURTON: With us today are Jacqueline Williamson. She's here to avail the Board and the parties with the opportunity to inquire further, if you wish. Perhaps if I could ask her to come forward?

CHAIRMAN BECHHOEFER: Well, it's this paragraph two of her declaration. It says, "I don't reside during much of the year," and that seemed to be a little at odds with what the other parties have said. This is not evidence, as such, but we sort of take it into account, as clarifying what's already in the affidavit -- or the declaration, I should say.

MS. WILLIAMSON: I have been going to Fischer's Island since 1960. I bought property on the island in about 1965 and I built a house there in the 1980s. My husband is buried on the island and I expect to be buried there, too; not too soon, I hope. I live in an area, which is on the shore and I am there generally between early April and about Thanksgiving. It depends upon various obligations whether I am there all the time or whether I am there part time. I am not a legal resident of Fischer's Island, but I am a New York State resident. I pay taxes to Suffolk County, to the receiver of taxes in Southhold. And I am -- I am on the

island, which has -- since it has an evacuation official and an emergency escape plan, I feel very definitely that I am affected by this and if anything happened and there were a safety glitch at Millstone, that I would have to be evacuated and that I would be evacuated through New London, through Windham, Connecticut, which is not something that I'd want like to consider.

CHAIRMAN BECHHOEFER: Is your property -- I understand it is within 10 miles of the facility?

MS. WILLIAMSON: To the best of my knowledge, it is. I'm not an engineer, so I can't, you know, pinpoint and everything. But, I am within an arc and from the -- my best look at the various maps, it looks as though I am within the 10 miles; I think so.

CHAIRMAN BECHHOEFER: Okay.

MS. BURTON: May I respond further?

CHAIRMAN BECHHOEFER: Yes.

MS. BURTON: As Ms. Williamson was saying, as a resident of Fischer's Island, she is -- even if she were beyond 10 miles, if she were located anywhere on Fischer's Island, she would be subject to the emergency evacuation plan, which dictates that in the event of evacuation, the residents go to the west, toward Millstone, board the ferry, and head to New London, where we are presently, and come within a very short distance of the Millstone Station. So,

certainly, in an emergency, she would be more likely to be adversely affected than most of us, by having to follow that route and having to suffer the perils of trying to evacuate under that particular plan.

I may offer into evidence the public emergency notification for residents and visitors in these communities, which has been prepared and distributed by Northeast Utilities, in conjunction with the Connecticut Office of Emergency Management, the Connecticut Department of Environmental Protection.

CHAIRMAN BECHHOEFER: I would think, by the way, that that is pretty general. It wouldn't apply to like an accident emanating from the spent fuel pool. So, I'm not sure that it would be relevant to this particular issue. This is whether you can be injured by something that might occur in this proceeding, which is the spent fuel pool. So, I'm not sure that that's relevant. If you are residential, if you -- the time that you occupy substantial periods of time is within 10 miles, that means that you can possibly be affected by an accident emanating from the spent fuel pool, and that's how I interpret it.

But, I'm going to ask the other parties for comments on that, because they have made a point that residents, who are at Staten Island or something like that, is too far. And I think, under precedent, it probably is

for spent fuel pool expansion. And -- but 10 miles is, -- I've held 10 miles is okay in a case of my own earlier, in this kind of proceeding, and there's a recent one down in the Carolinas, which went out as far as 17 miles. And so, I'm just relying on precedent. But, I'd like other parties comments. Mr. Repka?

MR. REPKA: Yes, Judge Bechhoefer. A couple of points: first, I'd like to start by saying that the issues raised in the Congressman's letter related to emergency preparedness on Long Island really are not at all within the scope of this particular proceeding --

CHAIRMAN BECHHOEFER: That's correct.

MR. REPKA: -- nor is there any regulatory or safety basis for those kinds of issues. Beyond that, with respect to the Long Island Coalition in this proceeding, we don't have any disagreement as to the factual premises, the residence of Ms. Williamson. We would assume that she has residence on Fischer's Island and that's at approximately 10 miles.

Our position is based upon the law of standing, as it's been applied in NRC proceedings in the past, and, essentially, the Commission has applied a three-part test for standing: first, there has to be an alleged injury; second, that injury has to be traceable to the action, the amendment that's at issue; and third, that that injury has

to be one that could be redressed in the proceeding. Our view is that with respect to residents, even at 10 miles, the only allegations of offsite consequences, offsite injuries, really relate to beyond design basis scenarios, scenarios that have not been determined to be credible; that Northeast Nuclear is not required to address; that those scenarios exist independent of the proposed action here. So those harms are not -- those alleged harms are not harms that are really traceable to this particular proposed licensing action, nor would they be redressed by even a favorable decision in this proceeding. So that's the basis for our objection to the Long Island Group standing.

Beyond that, a couple of other factual points I want to make that are just -- just to be very clear. One, the proposal at issue here does not involve, in any way, expanding Millstone. It doesn't involve expanding the Millstone spent fuel pool. The existing pool is a very large spent fuel pool and the proposal involves putting new racks in open spaces in the pool. And third, does not --

CHAIRMAN BECHHOEFER: By the way, if I used expansion in the introduction, I -- it really --

MR. REPKA: I think the way you said it was probably fine. I think it's just -- it's an increase in the capacity --

CHAIRMAN BECHHOEFER: Yes, that's correct.

MR. REPKA: -- but not an increase in the size of the pool.

CHAIRMAN BECHHOEFER: That's correct.

MR. REPKA: And lastly, the pool cooling design basis has been for a significant number of assemblies. Really since Millstone was licensed in the mid-1980s, actually, the design basis, from a cooling perspective, was for more assemblies than the company is actually proposing in this amendment package.

So with that, I think the point on standing is that we don't think -- beyond design basis, harms are not -- they're remote and speculative, number one; they're not traceable to this proposal. This proposal doesn't change those -- doesn't create those harms, doesn't change them in any way, nor are they likely to be redressed in this proceeding.

CHAIRMAN BECHHOEFER: Do you see any difference between this proposal and say the other cases, where there have been 10 miles, 17 miles?

MR. REPKA: Well, I think we've cited to some of the cases in our paper.

CHAIRMAN BECHHOEFER: No, you didn't cite those -- well, you may have cited Vermont Yankee, which is 10.

MR. REPKA: Right. And the standard was close proximity. I recognized the Sharon Harris case, which you

alluded to --

CHAIRMAN BECHHOEFER: Yes.

MR. REPKA: -- which I believe the intervenor group is at 17 miles. That's non-binding precedent on this Board and, you know, I don't necessarily want to concede that that was correctly decided.

CHAIRMAN BECHHOEFER: Ms. Hodgdon, do you have --

MS. HODGDON: Yes. In order to avoid repeating a number of things that Mr. Repka has said, I would say that generally the staff agrees with him. The case that he relied on, on which the staff relied on as well, was North Anna, a Virginia Electric and Power Company, North Anna Nuclear Power Station Units 1 and 2, of A lab. That is an Appeal Board Decision, which may be offered as precedent, No. 522 NRC 54.

The distinction there is one, some of the member groups lived at close proximity. It doesn't say -- it's like on the shores of Lake Anna; whereas the group that was further away did canoe, etc., in the North Anna River -- dangerously canoe on the North Anna River. I think the distinction here is that nothing is shown in Ms. Williamson's declaration regarding her being closer than 10 miles and there's nothing in the Appeal Board cases or in the Commission cases that would establish that distance as

being sufficient in a spent fuel pool expansion case. And --

CHAIRMAN BECHHOEFER: So, you are, in effect, saying that we shouldn't be following -- well, what about Vermont Yankee, which was formed by the Appeal Board? It was my case. I remember it was --

MS. HODGDON: The -- these cases -- as I say, it's foolish to rely on this old case only, because it's -- and the Vermont Yankee case -- at such time, actually there were two. I'm not quite sure that you want me to debate that. It was out to 10 miles.

Here, I think there have been -- well, we do set spent fuel pools apart, because this -- it's nothing that has anything to do with the reactor. And so the obvious potential for offsite consequences, which the Commission has held in a case involving Northeast Nuclear Energy Company, and that's 48 NRC 183, COI 9820, the Commission held where there was no obvious -- they upheld a licensee or finding -- not finding standing for a person, who was with the same declarant, but different group. It was Mr. Besade, if that's the proper pronunciation of his name. But, Mr. Besade -- the group was -- Citizens Regulatory Commission was the petitioner there and they held that there was no obvious potential for offsite consequences where it involved a new sump pump subsystem, even though it was within two

miles.

So, I'm saying that these cases are sort of -- they go on facts and nobody contests that there might possibly -- well, I suppose someone would like to contest, actually, that there can be any offsite consequences of this spent fuel pool expansion -- obvious potential for offsite consequences, I should say. And so, these findings beyond 10 miles -- the problem is that we're right at 10 miles here and you're citing Vermont Yankee as a precedent for 10 miles.

CHAIRMAN BECHHOEFER: Yeah.

MS. HODGDON: So, in any event, I'm saying that there are other factors. I have -- I can't remember what the distinction is there, but the -- normally, in those cases, the declarant has some claim as to being closer or for some purposes, and that's my understanding and because there is distinction there between the one, who was within a stone's throw, and the other group, who came in -- or the other petitioner, I suppose, who came in by virtue of close association by use of something closer than that. So, anyway, I was saying whether cases are not really in agreement, it's hard to say when you're putting somebody right at 10 miles, which seems to be the distance that's in dispute here.

CHAIRMAN BECHHOEFER: How about 17?

MS. HODGDON: Well, 17 was a case that was not appealed and the -- so, there's no -- there's no Appeal Board, of course, that the Commission does not take the position -- the Commission does not speak to that. Also --

CHAIRMAN BECHHOEFER: Excuse me. The Commission could not speak to that, because --

MS. HODGDON: No, I said, did not, did not.

CHAIRMAN BECHHOEFER: Oh, did not, okay.

MS. HODGDON: It did not.

CHAIRMAN BECHHOEFER: I thought you said "could not."

MS. HODGDON: No, I did not say "could not;" I said "did not," the Commission did not speak to that. It was not appealed. There seems to be something in that case that suggests that because it was a county that was -- that there were a great number of people, I wouldn't know that that makes any difference, because they certainly would have had 2.715 intervention. Had anyone else petitioned under 2.714 -- but, nobody did, so I don't know how -- what the Commission -- that they haven't had an opportunity to address it and actually I don't know if they ever will.

CHAIRMAN BECHHOEFER: The Board might just give a little more deference to a county.

MS. HODGDON: It appears that they did. It's -- I

have it with me. I read it several times.

CHAIRMAN BECHHOEFER: I have it with me, too.

MS. HODGDON: It appears that -- it appears that they were impressed with the fact that there were a lot people and even though they were at 17 miles -- well, it's a different case, as well. I mean, this is not Sharon Harris -- that was not Sharon Harris. But, it's not your ordinary spent fuel pool case, because, here, they wanted to commission two pools. They didn't want merely to expand the -- add racks to the existing pool. So, that may, also, make a difference. It's -- as I say, it's not your ordinary case. It may not have been found on any case.

I suppose, then, that's all we have to say. I mean, the reason I'm having so much trouble with this is that it seems the precedent, the Commission cases and the Appeal Board cases, most of it is very old and the technology has vastly improved. So, there's no way to weigh that. I have nothing else to say.

JUDGE COLE: Both the applicant and the staff indicated that Mr. Joseph Besade, they concede -- they indicate that they would accept his standing, but not the case with Ms. Williamson. I would like them to explain to me what they consider to be the rule of difference between these two.

MR. REPKA: Okay, I can attempt to do that, Judge

Cole. I think that some of the difficulty that Ms. Hodgdon is having and I think that probably the Board is having and we're having on this is if you look at this in terms of mileage, that doesn't necessarily square with the case law. The case law on standing, in a judicial sense, focuses on can there be an injury in fact that's within the scope of the proceeding and is redressable. And I think in our argument, with respect to 10 miles, is that that hasn't been shown; in fact, that doesn't exist. You can make a similar argument at two miles.

We have not chosen to do that. We believe the Commission's case law is fairly clear, that close proximity or within a stone's throw I believe are some of the words that are used in the Commission's cases. We would defer to that precedent, in the case of two miles. And I think that it's well within the Commission's discretion to grant standing within a couple of miles, even though -- for the same reasons that there would be no injury, as a result of the amendment at 10 miles, there would be no injury at two miles either. But, we would defer to the Commission's discretion for those short distances to allow standing to an intervenor. At 10 miles or 17 miles or 25 miles, I don't think that the basis for that discretion exists and, certainly, the judicial precedence on standing don't suggest that there would be standing in this case.

But, I don't think that -- I think that some of the discussion has focused on 10 miles, as if 10 miles is a dividing line, and there's nothing in the case law that suggests that there is any magic in this context to 10 miles.

JUDGE COLE: Would you like to address that?

MS. HODGDON: I thought I already did.

JUDGE COLE: Okay; that's fine.

MS. HODGDON: I would repeat what I said.

JUDGE COLE: No, you don't have to repeat anything. If you think you've said everything you wanted to say about that, you --

MS. HODGDON: No. To the extent that -- I'm sorry, I interrupted.

JUDGE COLE: That's all right.

MS. HODGDON: To the extent that I was misunderstood, I would like to clarify what I said. The case that I was construing, North Anna, did -- people who lived at a greater distance than a stone's throw, that case found standing where they had an association -- where they had activities closer to the plant than 10 miles; in fact, within a stone's throw. And so, it's not a matter of residence; it's a matter of whether somebody might possibly be affected. And although I might agree with Mr. Repka, there is no obvious potential for offsite consequences. The

Commission has decided that if you're very close, then that's fine; but, I don't think there's been any decision that they, after 10 miles, without more, is sufficient to show standing in a spent fuel pool expansion, like this sort.

JUDGE COLE: Thank you. Ms. Burton, you'd like to comment, I'm sure.

MS. BURTON: Yes, if I may. I have a few comments. One is a pretty good point was well taken, Dr. Cole, as to where to draw the line: if two miles is okay, how many miles is not okay; at what point does it become too far? And, of course, we do rely on the Vermont Yankee case, decided by the Chairman, as well as the recent Sharon Harris case.

But, there are several other things I wanted to bring to your attention. One was the -- there was some error in the Northeast Utilities reply in the statement, I think, that Ms. Williamson resides at Riverhead, some 36 miles. I want to be sure that's corrected, because she does not. She maintains another address, but not there.

I will make reference to the Brookhaven National Laboratory study that was undertaken in 1997 on an accident in the spent fuel pool. And in that analysis, which we cited on page seven of our supplemental petition, for the least serious case analyzed, Brookhaven reported 1,500

additional cancer deaths to the population living within 50 miles of the plant. That was the least serious case. We have, also, pointed out that according to our expert's search of the public document room, there has, to date, been no evaluation of criticality accidents in spent fuel pools.

In several of our contentions, we are addressing the issue of criticality. This is something that has not been litigated, hasn't been determined, but we are making the case that both with respect to criticality and severe accidents, that certainly an individual residing in property within about 10 miles of this plant is, in fact, in a position to assert, as we do here, injury in fact. We are asserting in our petition here that a severe pool accident is an almost certain outcome of a severe reactor accident and that the emergency plans, which have been devised for severe reactor accident, including evacuation within a 10-mile zone, necessarily apply here; and, if anything, more so. Because if there is this severe reactor accident with the almost certain outcome of consequences to the spent fuel pool, we recognize the spent fuel pool has no containment, is manually operated, and is designed with materials, which are not required to meet standards that are required in the reactor. So, if anything, we would suggest more significant from spent fuel severe accident than we do with reactor, for which Ms. Williamson is required to evacuate her home within

10 miles, in the event of that kind of an emergency.

Our asserted nexus has never been litigated. We are presenting contentions and we may be raising issues here for the first time. But, I believe the Board should take note of that.

And I wanted to, also, on the point of remote and speculative, it has been suggested that our contentions concerning severe accidents are remote and speculative.

CHAIRMAN BECHHOEFER: We'll get to them when we get to your contentions.

MS. BURTON: I just wanted to respond.

CHAIRMAN BECHHOEFER: Oh, okay.

MS. BURTON: But -- well, then let me conclude by saying that I believe we have met the test of standing. The standing that we have presented does come within the case law. Ms. Williamson has demonstrated injury in fact. And I will refer to her affidavit, paragraph 18, where she is saying that the present licensing amendment, if granted, would significantly increase the risk of serious accidental release of radioactivity into the environment. At paragraph 22, she asserts that that the potential of the application is to expose the public to a significant increase in the probability and offsite consequences of serious accident. Again, she is in the unique and unenviable position of owning property, which is subject to an evacuation, which

will take her closer to, shall we say, the mouth of the dragon, than the other direction, to a zone of safety.

She has adequately and sufficiently demonstrated injury in fact, which is traceable to this application that has been set forth in this affidavit. She asserts that the safety risk is compounded. There is a greater risk of significant injury because of this application, if granted, and her injury can be redressed in this proceeding, mainly by a consideration of all the issues presented. And we request a denial of the application to expand the density of the spent fuel pool, in the configuration and in accordance with the proposal, which has been presented.

So, I believe we have very adequately met the standing criteria, which have been set out in the regulations and have been implemented by case law.

MR. REPKA: Judge Bechhoefer, I'd like to respond to that briefly.

CHAIRMAN BECHHOEFER: Okay.

MR. REPKA: I think we will get into the issue of the Brookhaven report and some of the alleged scenarios, but these are precisely the kinds of scenarios that are being postulated that I referred to earlier as really being beyond the scope of this proceeding. There are issues that would apply to the current pool, that would apply to wet storage throughout the nuclear industry. They would represent a

challenge to the existing design basis of Millstone Unit 3. They would exist -- they would represent a challenge to the NRC's regulatory structure, which are issues not unique to this proceeding. This proposal doesn't change those alleged risks. Those are risks that have been determined by the Commission previously, not to warrant being addressed. And they are, quite frankly, matters outside the scope of this proceeding and a challenge to the NRC's regulations.

CHAIRMAN BECHHOEFER: I have only one question. I -- in a sense, we seem to be asked to be applying the standards for contentions to the standards for determining whether we have standing, and I'm not sure that that's comparable. The standing rule requires much less of a showing than does, for instance, proposed contention.

MR. REPKA: I don't think that observation is really true. I think the standard for contention requires a much greater evidentiary --

CHAIRMAN BECHHOEFER: Well, there is precedent to that, by the way.

MR. REPKA: But, I don't think that's what we're asking.

CHAIRMAN BECHHOEFER: Pardon?

MR. REPKA: I don't think that's what we're asking. The evidentiary standard for the basis for contention is very clear. The Commission has spoken to

that. You need an evidentiary basis for the allegation that a -- that there is a real issue, that there could be an accident of this type, and we'll get to that.

In the context of standing, I think what we're asking is you apply the existing judicial case law that says that there has to be a plausible injury in fact, traceable to this amendment and redressable in this proceeding. And I think that the kinds of issues that have been raised, it's not so much a lack of an evidentiary basis, although that certainly exists, that the plausibility is not there, the traceability to this proceeding is not there, and the redressibility in this proceeding is not there. So, those are legal requirements related to standing that we maintain have not been addressed, have not been met.

CHAIRMAN BECHHOEFER: We're not going to rule -- well, we're ruling that the Connecticut group has standing and there's no opposition to that. But, we'll hold for a while on ruling on the Long Island group.

MS. HODGDON: Judge Bechhoefer?

CHAIRMAN BECHHOEFER: Pardon?

MS. HODGDON: May I speak to this issue --

CHAIRMAN BECHHOEFER: Oh, yes.

MS. HODGDON: -- before you --

CHAIRMAN BECHHOEFER: I don't think we have to rule before you --

MS. HODGDON: -- before you finish?

CHAIRMAN BECHHOEFER: Yes. I'm sorry.

MS. HODGDON: I hate to interrupt, but --

CHAIRMAN BECHHOEFER: I understand.

MS. HODGDON: I just wanted to address several things that were addressed by Mr. Repka. I'm not sure that I entirely understood whether it's even appropriate to talk about -- to discuss various things that Ms. Burton brought up here, with regard to criticality, for example, to the extent that Ms. Williamson feels that she's going to be -- that there's a possibility of some criticality accident that's related to this amendment request. Dr. Kelber will recall that criticality has been adjudicated here, with respect to another one of the Millstone reactors at Millstone 2. I have the cite for that somewhere, but I will look it up and give it to you. But, actually, the statement is just not absolutely accurate, that criticality has not been addressed in NRC proceedings.

SPEAKER: Judge, it's very hard to hear. Could anything be done? It's very hard to hear, I'm sorry.

CHAIRMAN BECHHOEFER: Well, everybody has a microphone. Is your microphone on?

JUDGE COLE: Is your microphone on?

MS. HODGDON: Well, I don't know.

JUDGE COLE: You can move it closer.

MS. HODGDON: All right. Somebody fix it for me.

CHAIRMAN BECHHOEFER: We don't want to be accused of shouting at each other.

MS. HODGDON: Is that better; is that better?

SPEAKER: Yes.

MS. HODGDON: I'm getting feedback now. The other thing, in regards to the Brookhaven study, that Brookhaven study of August 1997, addressed in our filing, we said that that was done with relation to the pollution. There is -- the decommissioning -- people are trying to make a rule regarding when certain operating license requirements are not applicable for decommissioning plants, because they operate in the exemption field, which they feel that they ought to get out of that because it's so labor intensive. So, I think that really that that labor determinant rule there and -- so that's what that is for. And actually, that study is not highly regarded by the staff. I mean, there's a lot of more recent information that I'm not even going to address it, because -- except in relation to the -- to the -- when we get to that contention.

In any rate, I'm not going to address it, not very much, because it really just doesn't come in here. I mean, it's a whole different thing. I mean, it's -- because it's different. And so -- I mean, there's an assumption of the loss of all water. Here, as we said, intervenors will be

required to -- the contention -- to the contention, to just show how that could happen, because they will have to show us a scenario affect.

In any event, the other thing that I would address is that Ms. --

CHAIRMAN BECHHOEFER: Well, for standing purposes --

MS. HODGDON: No, I'm just addressing --

CHAIRMAN BECHHOEFER: -- don't they have to -- don't we have to more or less accept what they say?

MS. HODGDON: No. No, we don't have to accept it.

CHAIRMAN BECHHOEFER: The old Georgia Tech case with the Commission --

MS. HODGDON: No, at least in --

CHAIRMAN BECHHOEFER: You don't know about that one?

MS. HODGDON: Yes, I do. I'm aware of the Georgia Tech case. The reason that the Board does not have to accept what the intervenor is saying is that to the extent that their show of injury is based on facts, which it determines, because facts are not obviously mistaken. For example, they say that they're doubling the density of storage. And when we look at their plan, we show you that that's not what they're doing. And, also, there's an allegation that they go to the high density racks. Well,

that the Connecticut citizens against Millstone will be given standing. The factual basis alleged for their injury in fact is the same as the factual basis alleged for the Long Island citizens. There's no precedent then being set if one were deny standing to the Long Island citizens and no precedent if you admit them. There's no consequence, one way or the other, of a decision on standing for the Long Island citizens against Millstone.

MS. HODGDON: If that question is being addressed to me, I would say that the question is based on not -- not on precedent and the precedent is not logical, which I am ready to argue. The -- if within a stone's throw, they're -- there seems to be a feeling that this injury in fact either doesn't have to be shown or that the showing is not -- that mere proximity might be enough and further than that, it's not the case. But, they're has to be a showing. So, that is why there will be a distinction between Mr. Besade's showing of standing and Ms. Williamson's showing of standing. That is based on the -- the question seems to be a question of logic and, as I said, that doesn't seem to be in real agreement with the standing. I'm not criticizing the standing, I'm just saying that they occur over a long period of time. They all go on the facts and it's very hard to draw the line, and the argument I was making is that a line isn't drawn within 10 miles. It's not easy; it's

MR. REPKA: With respect to Judge Bechhoefer's comment earlier, that the Commission case law requires the Board to be blind to the facts in the standing context, I don't think that that's true. And, in fact, I would just point out that the Commission, through its Office of the Solicitor, just in the last several weeks filed a brief in the D.C. Circuit on a standing matter and very firmly took the position that Boards and the Commission do not have to accept the facts. They need to make an inquiry into the facts, as alleged by a potential intervenor.

CHAIRMAN BECHHOEFER: Okay. I guess we'll move on to the contentions. We'll do those in order. Ms. Burton, do you want to leave off on your first contention?

MS. BURTON: Yes, sir.

CHAIRMAN BECHHOEFER: And I presume you've seen the comments of various -- of the other parties on that.

SPEAKER: Judge, I'm sorry, could you bring the mic a little closer, also, please?

CHAIRMAN BECHHOEFER: Okay. I was just saying that I presume that Ms. Burton has read the comments of the other parties on each of the contentions.

MS. BURTON: Yes, I have had an opportunity to review the responses from the other parties. Our first contention concerns channel blockage and more particularly, the failure of the applicant to consider credible scenarios

of three blocked flow channels. In essence, we have been presented in the application with an analysis -- or summary of an analysis -- we don't have the actual calculations that were employed -- that take certain -- make certain assumptions, which we do not believe are necessarily conservative assumptions and which do not give adequate consideration to credible scenarios that could cause blockage of an entire flow channel or a multiple flow channel to become completely blocked.

We have set forth credible scenarios in our petition, for instance, that includes plastic or cloth into the spent fuel pool water sink, to allow the coolant to be drawn into the storage racks by the circulating pool water. The material could then plug the entry to one or more flow channels. The analysis presented has not demonstrated that this scenario has been considered and, furthermore, be able to recognize that in the industry, there have been scenarios of blockage of flow channels at reactors, just as one example at Millstone 1.

Fairly recently, it was reported by Northeast Utilities that debris had been discovered at the floor of the expansion pool, which they saw debris -- parts at the Brown's Ferry reactor in 1980 was a rather noteworthy example that some 86 fuel tags found their way to the -- became disconnected from the base of the base of the reactor

and was subject to -- because they were just the right size, subject to blocking the flow to the reactor. That's another example. And certainly, in the case of Fermi, back in the late 1960s, where there was -- pardon me, could I just go back to Brown's Ferry. I think I made an error. That is all fuel tags that were placed on fuel assemblies before 1996 -- '66, involved metals, which came on its placement and actually didn't want to feed it through the reactor.

So, there are credible scenarios. And we assert that analysis, which has been undertaken by the applicant, is non-conservative and that it is, therefore, defective.

JUDGE COLE: Ms. Burton?

MS. BURTON: Excuse me.

JUDGE COLE: We might have misheard you, with respect to the Fermi accident -- or Fermi incident. I thought the first date you gave was 1960 and then you said 1966. Which is it?

MS. BURTON: Yes, I'm sorry, I was corrected, it's 1966.

JUDGE COLE: Okay.

CHAIRMAN BECHHOEFER: The licensee has mentioned a -- the assumptions set forth in the study by Holtech International, are you aware of that study, in terms of drawing assertions?

MS. BURTON: Yes, we are and we believe that that

study was inadequate, because it did not adequately bound the analysis. There were credible scenarios, which were not take into consideration. And, furthermore, the note at page 10, of the applicant's reply, there is an admission that there are administrative controls to limit the potential for foreign material falling into the spent fuel pool. However, it's not asserted that the administrative controls, in fact, eliminate the possibility that foreign material will fall and block the channels. Therefore, the analysis is not conservative and it is -- it does not lead to legal standards.

MR. REPKA: May I respond, Judge Bechhoefer?

CHAIRMAN BECHHOEFER: Yeah. Okay, are you finished now with contention one. I'll let the other parties have a chance.

MS. BURTON: Yes, I have.

CHAIRMAN BECHHOEFER: Mr. Repka?

MR. REPKA: Okay. Several points: first, Ms. Burton presented here this morning some additional bases for the theory that debris could fall into the spent fuel pool. None of that information was presented in the pleading; so, in that sense, it's not timely.

But beyond that, that provides -- what Ms. Burton is providing is basis for the proposition that debris could fall into the spent fuel pool. And, yes, there are

administrative controls that limit the potential for that happening. But, even accepting that it could happen, what Ms. Burton has not presented is any basis for the proposition that the existing thermohydraulic analysis is non-conservative or not bounding of those kinds of scenarios.

What we pointed out in our response was that the -- and that the analysis makes some very conservative assumptions regarding -- for example, it assumes placing the hottest fuel in four contiguous -- in four contiguous locations, which would not normally occur, and that 100 percent of the inlet flow would be blocked -- so all of those things that she's referring to, the tags and whatnot, if they fell to the bottom of the pool. Holtech's analysis, Northeast Nuclear's analysis already assumes 100 percent blockage of the flow inlets and, in addition, assumes 50 percent blockage of the flow outlets at the top.

So, those are very, very conservative assumptions. And what the petitioners have not at all presented is any evidence to back up and support the proposition that that analysis is not conservative and is not bound. We simply hear the assertion that it isn't bound and that is isn't conservative; but why not, how not, there's absolutely nothing that's been presented on that point and nothing that could be presented.

JUDGE COLE: Mr. Repka, I don't know whether you would be prepared to answer this and it might not be fair to ask you, but in your response on page 10 and it was quoted, "The administrative controls to limit the potential for foreign material falling into the spent fuel pool that would reduce the likelihood of the allegedly credible scenarios," could you give me some example of the types of administrative controls you're talking about that would reduce the potential for material falling into the pool?

MR. REPKA: One example are foreign material exclusion administrative controls, which require that any foreign materials that enter certain areas be tracked and controlled upon entry and upon exit, to assure that whatever goes into that area is inventoried, that it comes out of that area. So, that's one example. There's not -- it's not an administrative control that says thou shalt not drop this into the spent fuel pool; but it is a control that if you take something in, it will come out. That's one example.

JUDGE COLE: All right, sir, thank you.

CHAIRMAN BECHHOEFER: Are those controls now in existence or are you changing something?

MR. REPKA: There's nothing in the foreign material exclusion control program or any of the other administrative controls that are being altered, as a result of this amendment.

CHAIRMAN BECHHOEFER: So, you would follow whatever your current -- the currently applicable program would be followed?

MR. REPKA: That's exactly correct.

CHAIRMAN BECHHOEFER: Mr. Repka, are you finished?

MR. REPKA: Yes, I am.

CHAIRMAN BECHHOEFER: Ms. Hodgdon?

MS. HODGDON: The staff agrees with the licensee's counsel, that these additional basis are --

SPEAKER: I'm sorry, could you please speak up?

MS. HODGDON: I'm trying to speak up. In fact, I've just --

SPEAKER: Well, get closer -- come closer to the microphone there.

JUDGE COLE: We appreciate the needs of the audience, but it's our needs that really have to be met. And please don't interrupt the proceedings anymore than is necessary.

CHAIRMAN BECHHOEFER: But speak as loud as you can, I guess.

MS. HODGDON: It's -- I can be heard without -- it's -- I'm trying to accommodate the reporter, as well. So, anyway --

CHAIRMAN BECHHOEFER: He's got a different microphone.

MS. HODGDON: Yes, I know that system here, which is very powerful apparently. The additional bases is -- we agree with the licensee that they're late filed and the regulation regarding this matter is that petitioners may supplement up to 15 days before the pre-hearing conference and after that, the contentions are considered to be late filed and must meet the standards for late filing.

Beyond that, they didn't offer us anything with regard to those, what the consequences were and so forth. I notice that those are all fairly old and, for example, a blockage of flow channels, they spoke to something being on the floor in Millstone 1. As you know, that is a decommissioned -- decommissioning plant. It's, also, a BWR and GW -- a GNR 1. It naturally gets racks -- not like these racks, because BWRs don't use the same racks as PWRs.

And I've seen those racks and it's hard to see -- well, in any event, these are new model racks that are being put in here. And nobody has tried to show that anything that might be relevant here, with regard to blockage at Millstone 1, being racks of different design, is even applicable here, where these racks have -- as in the application -- I can't point to it right now -- I think the licensee addresses that these racks have three-quarter inch blow holes that allow for flow. Even if there's partial blockage of the bottom hole, the worst possible channel for

flow, and even if there's partial blockage, the flow up to the top -- I'm not sure about the Millstone 1 racks, but I'm, also, sure that neither is the -- it's true, they haven't offered anything to that.

As regards to Brown's Ferry, they say that that report relates to something that happened in 1980. I would say which of the three units relates to it. And so, we don't know. I think those are -- I'm not going to speculate about that.

I just looked at Fermi and a report from 1966. Fermi is listed here as an SCF, which is sodium cool -- anyway, it's not a plant that's not a specific design and, therefore, we would -- it's racks were of the same design as these racks that are being put in at Millstone. And in addition to that, we would say that nothing is being changed, with regard to the propensity for such an accident. I'm sure that you have looked at this part of the application. It's Attachment IV, page six, which is -- which shows you what they do in here. I mean, it's just kind of a shortcut for showing what they do in here. It shows the casket. It shows the old racks, which are grey; the new ones, which are shown as black and white. And so that's the dimension of what's being proposed here. That's Figure 1, not drawn to scale.

But, in any event, it -- and then, also, pictures

what's the rack design. And so, it's clear that what's being done here is just adding racks. And so -- and the procedures, as I just said, would not change. So, it would be hard to say that anything that isn't -- anything concerning this contention is related to this proposed amendment. Thank you.

CHAIRMAN BECHHOEFER: With the new racks, might there be a plausible basis for saying that there's an increase likelihood of degree or whatever would be blocked? Could there be anything from the installation of the new racks, plus use of the new racks, that could result in greater debris, or whatever you want to call it, that might be -- that might -- the system might affect?

MS. HODGDON: I don't see how it can happen and my experts don't see how it can happen. And, actually, nothing has been changed here, because they off-load fuel. The outages are -- the same ones for outages, same propensity. I've never seen a rack, and I've seen lots the racks, but I've never seen one wrapped in paper or socks or anything. And so, I'm just -- I'm at a lost to explain what they're talking about here.

CHAIRMAN BECHHOEFER: Yeah, and --

MS. HODGDON: And they are talking about fuel tags, fuel tags exist. And so, I'm aware of fuel tanks, but they weren't talking about fuel tanks before; they were

talking about rags and paper. And I've done since 1980 --

CHAIRMAN BECHHOEFER: How about beer cans, they're not allowed either?

MS. HODGDON: Beer cans is not an allegation here. It's rags and paper.

CHAIRMAN BECHHOEFER: I know. Another question: would the staff -- or does the staff agree that the same administrative controls that are currently now in effect will continue and will be adequate? Haven't you agreed to that?

MS. HODGDON: Well, the staff agrees generally -- I mean, they're saying that these controls are applicable here. The staff has not --

CHAIRMAN BECHHOEFER: Has not existed --

MS. HODGDON: -- issued this -- has not issued this amendment yet and, therefore, they have not yet made -- that this amendment is okay. But since there's no change in regard to that, the -- well, that's not something that the staff would ordinarily review. But, there's no proposal regarding changing anything regarding foreign material.

CHAIRMAN BECHHOEFER: Right; thank you.

JUDGE KELBER: You were right in referring to the Fermi case as being extremely old. Let's speak a little bit of crystal knowledge, so as to reassure some people, whose history doesn't go back as far as mine. It wasn't really a

foreign object that fell in the case of the Fermi 1 Reactor, with sodium cool fast reactor. It was a -- believe it or not, an anticriticality plate of zircloid, placed in the bottom, quasi-chronicle arrangement, so that in case there was a meltdown of the plant, the fuel would spread out into a non-critical configuration.

One of the plates came loose. It was really a formed object. It was designed to be there; it just wasn't designed to flow up into the inlet -- the -- of the fuel assembly. Since that time, fuel assemblies, both for sodium cooled plants, which are no longer being built, and for water cooled plants, have had alternate paths for the coolant to flow into the assembly. That was the lesson learned from that particular accident. And I think it's -- I think every plant design that I know of has such alternative plants.

MS. HODGDON: If I may, may I make a comment on that? The staff has just told me that Dr. Kelber has just confirmed that this relates to a reactor and not to the coolant, as to all three of these -- what they are referring to. I don't know if they had -- does anybody have -- whatever they are.

And, also, if I may ask a question -- I'm just curious, is this -- is this -- nobody has lost -- or is this --

CHAIRMAN BECHHOEFER: I'm not sure what all the scenarios are, but I think -- I think that was part of it, yeah. It didn't come close, of course, but it was --

MS. HODGDON: I thought there was a --

CHAIRMAN BECHHOEFER: Yes; yes.

MS. HODGDON: I have it; I'm not sure about that.

JUDGE KELBER: I think that was the basis of it.

MS. HODGDON: So, in any event, I was on the wrong track there, when I said, well, Chris -- I mean, I was just assuming that these were about racks in the spent fuel pool. It's not true. They're about reactor incidents -- nothing else to add.

JUDGE KELBER: I just wanted to relate that, so that the people would know whose history -- that was my -- would know that people do learn lessons from accidents.

MS. HODGDON: That was very helpful.

MR. REPKA: Just a quick clarifying point, I think there was a reference to a Millstone One circumstance and that was in the spent fuel pool of Millstone one, but it's -- that doesn't lead to the conclusion that these racks are not -- in the heat -- the analysis of thermo effects is not bounded.

MS. BURTON: May I respond?

CHAIRMAN BECHHOEFER: Yes. I was just going to ask you to.

MS. BURTON: To clarify on Brown's Ferry, that, also, was a spent fuel pool case and it developed in Unit 2. I understand all three units are identical, in terms of their design. And I wanted to, also, point out that since we have just seen a summary for this information, we really do not have a basis, at this time, to know and understand and be sure that the 50 percent assumption, taken by the applicant, is correct and is appropriately conservative. What we do need, is the same calculation,, so that we can confirm or view that information, because it appears to us to be simply arbitrary. And that is not appropriate to the standard core analysis.

I, also, wanted to point out further, with reference to Attachment IV at page six, that is the diagram showing the spent fuel pool, and the question was put to the NRC staff whether or not -- I think it was by Chairman Bechhoefer, there would be any difference in the potential for blockage of the channels with this application, if it were granted, and we dispute the response given by the staff, for this reason: the re-racking, which is proposed, will have the affect of providing for a scenario that will provide for increased rate of flow through the coolant, simply because the open space will be occupied, and that will have the likelihood of sucking down any debris that might be into the pool down toward the bottom of the pool.

That would be a different scenario than the current one.

MR. REPKA: I would like to respond to the first part of that comment by Ms. Burton. One thing -- and that was the reference to the fact that petitioners have not sen the analysis. They certainly have seen the assumptions. The assumptions have been in the licensing report, which were part of the application. And what Ms. Burton suggested that they need to do is to see the calcs and decide whether or not those assumptions are bounding.

Well, my response to that is one thing could not be more crystal, and the reason Commission guidance on the admission of contentions, and that's that there has to be an evidentiary basis for a challenge. There has to be a basis to go forward and to proceed with discovery. One can't admit a contention to say we're going to now look at the calcs and say that -- figure out whether or not it was appropriate.

The assumptions, and I wouldn't call them arbitrary, but I certainly would call them conservative assumption and they have been a known commodity. And if the petitioners had a basis to challenge those assumptions, they needed to come forward with that basis, as part of their contention, and they simply haven't done that. And I think the Commission precedent and the recent guidance to the licensing boards is very, very clear on that point.

MS. BURTON: My I respond?

CHAIRMAN BECHHOEFER: Yes.

MS. BURTON: What we are suggesting in our first contention is that the applicant has failed to consider credible scenarios and it hasn't, so far today, established that that is not correct. We have no question in our contention, but that we are raising a valid issue. We don't have the factual background, in terms of the actual calculations. That is a matter that will be appropriate for discovery, as this proceeding progresses. But, the information that has been submitted does suggest a simple adoption of an arbitrary standard and the applicant has not demonstrated how that is a standard of being conservative.

CHAIRMAN BECHHOEFER: Ms. Burton, why don't we go on to the second one? And my question here is: have you considered both of the responses to this contention, that potentially say that there won't be any movement of the racks over the fuel, because it's precluded by the tech spec? I guess it's either technical specification or some other sort of rule?

JUDGE KELBER: Technical specification 3.9.7.

CHAIRMAN BECHHOEFER: Yeah.

MS. BURTON: Yes.

CHAIRMAN BECHHOEFER: If that's so, is this a viable contention for the particular proceeding now?

MS. BURTON: Yes. Clearly, contention number two --

CHAIRMAN BECHHOEFER: Yes.

MS. BURTON: -- is the failure of the application to consider dropping an empty rack onto the irradiated fuel. The applicant neglected and failed to perform that analysis. It has --

CHAIRMAN BECHHOEFER: Well, given their technical specification, do they have to? It's barred, is it not?

MS. BURTON: Well, therefore, we would suggest that the amendment permitting rack 15 should be disallowed, if it cannot be placed in further compliance with the technical specifications.

CHAIRMAN BECHHOEFER: Yeah, but it's my understanding now, and the other parties will have to correct me if I'm wrong, would there not have to be another license amendment applied for, before you ask for --

MR. REPKA: It all depends --

CHAIRMAN BECHHOEFER: -- moved and installed?

MR. REPKA: Judge Bechhoefer, it all depends upon timing. If the racks were installed immediately -- the 15th rack were installed immediately, there would be a load path to install that rack without moving it over spent fuel. If it were installed many years down the road, in which no load path could be established such that it could be installed

without moving over irradiated fuel, then another technical specification would be required. But, it's all a matter of timing. It's all a matter of establishing a safe load path. And there is no reason to preclude, in this amendment application, installing the 15th rack. The tech spec is very clear, that restriction applies. And the discretion on when and if to install the 15th rack is one that would, in fact, like any of the racks, reside with Northeast Nuclear.

JUDGE KELBER: Excuse me, in your discussion, I think you misspoke. You said if the 15th rack were to be installed after some while, another technical specification -- you mean a license amendment would be required.

MR. REPKA: A technical specification change, which would be a license amendment, and the point there being if it were installed at a point when the contiguous racks had been filled with spent fuel.

JUDGE KELBER: Okay.

MS. BURTON: However, apart from the issue of rack 15, the contention is still valid, because the applicant only analyzed an inter rack falling in an empty spot within the pool. They did not consider the scenario of an empty rack falling elsewhere in the pool; for instance, in such a position that it could jostle or affect the positioning, in some way, of some -- of another rack within the pool. And without having considered that scenario, the application has

not submitted an appropriately conservative analysis.

MR. REPKA: I believe that's a new contention. Contention two is consider dropping an empty rack onto irradiated fuel. But, in any event, there is no basis offered for that proposition, that dropping an empty rack into an empty pool or onto an empty rack would cause problems elsewhere in the pool.

MS. BURTON: Well if I may, I think reference to the exhibit, Attachment IV, page six, does establish that this is going to be a crowded facility and that should there be an over rack, there is reasonable likelihood that there would be jostling at a certain point in the evolution of this pool, such that it may affect an irradiated rack and, therefore, have consequences, which have not been analyzed in this application.

JUDGE KELBER: I suspect that this is a new contention and it has to meet the -- but let me ask you: I'm considering the contention as originally written, what relief could we give you? Supposing it were admitted, what relief would there be?

MS. BURTON: There would be several ways where that could be addressed. One, of course, is denial of the application; another would be a modification, whereby there could be a condition attached that would require the contemporaneous installation of 14 racks and the elimination

of the 15th rack. That would seem to potentially address the issue.

JUDGE KELBER: You give no weight, then, to technical specification 3.9.7?

MS. BURTON: We've been misunderstood, if that is the impression that we've left, because we give very great consideration to the -- to rack 15 and the potential violation of that technical specification. The tech spec could be -- the problem could be avoided, if there were to be -- if the rack were to be placed in a different location in the pool, namely in the corner --

JUDGE KELBER: Okay.

MS. BURTON: -- not right in the center, where there's no other way to install it, other than by going over presumably irradiated fuel.

JUDGE KELBER: Violating their own tech spec in the process?

MS. BURTON: Right.

CHAIRMAN BECHHOEFER: Can we assume a violation of the tech spec? I don't know that we can. Because if they violated a tech spec, they would be for one thing subject to other penalties, perhaps.

MS. BURTON: That is correct. I would draw your attention, a study by the NRC, that was done in April 1997, that determined that there -- the frequency of violations of

this particular technical specification, in fact, were relatively frequent. So, this would not be the first. It would not make it an incredible less scenario and this Board should be aware that that's done.

JUDGE KELBER: It seems to me this is a legal question, can we, in admitting that contention, admit it on the basis that the applicant -- the licensee will violate a contention -- a technical specification?

MR. REPKA: And I believe we cited from legal precedent for the proposition that it cannot.

JUDGE KELBER: It seems to be convicting you before the fact, wouldn't it?

MR. REPKA: I agree with that.

JUDGE KELBER: Not a bad thing to do.

[Laughter.]

MS. BURTON: If I'm not mistaken, that appears as NUREG 1402.

MS. HODGDON: It's 1275.

MR. REPKA: And that certainly is a new basis, which we have not heard of before.

CHAIRMAN BECHHOEFER: I guess Ms. Hodgdon, we haven't heard from you.

MS. HODGDON: Well, yes, you didn't hear from me. The last time --

CHAIRMAN BECHHOEFER: Pardon?

MS. HODGDON: You didn't hear from me last time either, so --

CHAIRMAN BECHHOEFER: We try to be --

MS. HODGDON: I missed my turn. Yes, I reserve the right to return to contention one, to the extent that I -- we have time to do that. In the meantime, I'll talk about contention two. I believe the NUREG that was cited here is 1275. It's a ASLB study that may be the last word on what's called the Susquehanna problem, if you know that, which was a matter that was introduced by Mr. Lochbaum and Mr. Cravat. It's a part 21 that they filed. Does anybody know about that? Well, in any event, the ASLB issued the document that's quoted. I don't have it with me. I'm not sure that that's exactly what it says. It says that it has happened, that the tech specs have, but they don't say frequently. I think, actually, they ran through notices of violations and LERs, related to a lot of matters, and that's what -- that's what they completed.

But, in any event, I -- for one thing, I don't think you allowed an assumption that the licensee is going to violate the tech spec. For another thing, they haven't really encountered when they put this rack in and, certainly, they haven't said that there's going to be fuel in those contiguous racks when they do put them in. And so, they could put them in at any time after they put the other

14 in. And if they do that, then it's -- all they have to do is now put in other racks; and if they can do that, they need a tech spec change. And it's as simple as that, and that would be a license amendment, at which time these petitioners will be able to potentially intervene, because then it will be timely. It's not now.

CHAIRMAN BECHHOEFER: Well, let me ask you one thing. I know there is some precedent saying that you could assume a tech spec violation, based on a particularized showing, that there is some likelihood that the spec would be violated. That's the way I understand that and that's Sharon Harris, actually, the recent one.

MS. HODGDON: I'm sorry, I don't understand the analogy. The recent Sharon Harris --

CHAIRMAN BECHHOEFER: Well, actually, the licensee cites that case. The Sharon Harris, the rule that you can't challenge a tech spec, unless you have a particularized showing, I think it's going to be valid. My question to you is: do you think what we've heard thus far amounts to a particularized showing, with respect to this proceeding?

MS. HODGDON: No.

CHAIRMAN BECHHOEFER: What kind of a showing would you think a particularized showing might be? I'm just trying to see what that Board meant.

MS. HODGDON: Well, I don't agree with that and

somebody can tell me what the Board meant.

CHAIRMAN BECHHOEFER: Okay.

JUDGE COLE: Ms. Hodgdon?

MS. HODGDON: Yes.

JUDGE COLE: You mentioned NUREG and then said 1275. Is that the date of the NUREG?

MS. HODGDON: No, that's the number of the NUREG.

JUDGE COLE: Okay, you said NUREG 1452, 1275. Which is it?

MS. HODGDON: No, that's what she said. I believe it's 1275. I have a copy of that, but it's a review copy and it was not a NUREG at the time. And so, I saw it in somebody else's office and my recollection is that it is 1275.

JUDGE COLE: Do we know what the date of that NUREG is?

MS. HODGDON: Yes, it's whatever she said it was. It's 1997, April -- is it April? August? I can't remember. It's a 1997 amendment.

JUDGE COLE: Thank you.

MS. HODGDON: It's what's being cited as this requirement, deliberate violation of a tech spec, which -- a violation, particularly in view of the fact that -- well, just without the identity being addressed here, it was the tech spec, itself, not the further requirement that they not

move racks over the pool. So, in any event, there's a long time between now and the time that it's continued, and I'm sure that somebody that's qualified, one, they'll have to apply for this. And so, it's just a question of timing, what they will need in a tech spec change. So, sometimes in these -- in a request to change, judges no doubt know you've got sort of a choreography and they tell you how they're going to do it, but we don't have one here. But, nevertheless, as the tech spec for these have to be in; therefore, we're entitled to believe that there will be no -- that they would respond to the tech spec.

MR. REPKA: Judge Bechhoefer, I would add that additional observation, following up on Ms. Hodgdon, that in answer to your question as to what a particularized showing might be, I have no idea what it might be; but, I can say with extreme confidence that there was nothing in the petition that would constitute a particularized showing.

MS. BURTON: May I comment?

CHAIRMAN BECHHOEFER: Yes.

MS. BURTON: Several points: one is, of course, we're raising a significant safety issue here, in terms of potential damage to fuel assemblies and potential criticality problems. And we would suggest that if this application does call for rack number 15, at some point, that now is the time to address this issue, not to approve

the configuration and think that at some future time, the issues will be properly addressed.

The second point I wanted to make is that --

CHAIRMAN BECHHOEFER: Well, you know, if they have to apply for an amendment -- a tech spec amendment, then, at that time, it would be addressed and, if it were improper, it wouldn't be allowed.

MS. BURTON: That may well be the case. But, let me point out that there is some significant history at the Millstone station for violation of tech specs. And one in particular that I'll briefly mention, where everybody must be aware of, is the practice of some 20 years at Millstone 1, to routinely violate these simple to understand, you know, for somebody like me, that requires the operators to wait a certain finite period of time before they conduct off loading. That tech spec was routinely violated. We may have a semantical debate here as to what is routine and what is deliberate. There may be some connection between those two. And that particular tech spec went on until the Northeast Utilities suffered one of the highest civil penalties ever of $2.1 million imposed, when it came to light that there had been this routine violation of the tech spec. So, that is one of a number of examples that we would cite to today, to show you how it is not at all farfetched to suggest that we have presented a case, where it is

appropriate to consider this issue, as we have presented it in the petition.

MR. REPKA: I would like to respond to that. First, that's an extreme oversimplication of the facts of the Unit 1 spent fuel pool situation. But, number two, and most importantly, there was no technical specification related to full core off loads, there was no technical specification related to wait times before moving the fuel, and there was no technical specification violation there. There were other violations, but there was no technical specification.

MS. BURTON: I'd like to respond to that. Our understanding is that, in fact, it was subject to an operation condition, which was part of the technical specifications.

MR. REPKA: It's simply untrue.

JUDGE KELBER: Well, whether it's true or not --

MS. BURTON: It is true.

JUDGE KELBER: -- I think the fact is the Commission -- the Commission, itself, agonized for a long time over the conditions at the Millstone plant. They have a very considerable staff investigation and it took a lot of work to convince the Commission that Millstone should resume operation. They did so after a painstaking inquiry. And I don't think that we can visit the sins of the past upon the

present. The Commission is convinced that Millstone is now in shape to operate and for this Board to say the Commission was wrong is taking a little too much on us. We believe in the power of retention.

MS. BURTON: May I respond, briefly? We believe in the Easter Bunny, too, and we understand that although there has recently been a record setting cleanup penalty imposed on Northeast Utilities for willful falsifying of records to the NRC, we understand that that criminal investigation is continuing and that there are individuals known to prosecutors, who are responsible for the commission of felonies under the Atomic Energy Act. So, although it may be that the NRC did devote significant time to Millstone issues, we believe that we are here today because things haven't significantly changed at Millstone and the application before us proposes to do something, which is unsafe, to save money. So, I simply wanted that comment to be in the record. Thank you.

MR. REPKA: Well, there certainly is no nexus established between those past issues and the future conduct -- the much more narrow issues we have before us here today and I think that the discussion is getting way beyond the scope of the proposal.

CHAIRMAN BECHHOEFER: Well, we were going to say that at least on this contention, we've heard enough at the

moment. I think before we go to the next one, we should take a short break of 15 minutes and then come back.

[Recess.]

CHAIRMAN BECHHOEFER: Back on the record. I guess we'll turn to contention three, the cask contention. Ms. Burton?

MS. BURTON: Yes. Contention number three is that the application failed to evaluate a cask drop; that the applicant has not properly evaluated the potential to count the loads under accident conditions, because it did not consider the drop of a shipping cask into the cask pit or fuel pool. We maintain that a cask drop could potentially cause a criticality accident, release radioactive material from irradiated fuel into the pool water, the pool building atmosphere, and the environment outside the building, or cause loss of water in the pool.

We, also, maintain that the argument offered by the applicant for not considering a cask drop is frivolous. That argument is that the applicant sole justification for its admission to undertake this evaluation is that Millstone Unit 3 is not currently licensed to transport a cask into its spent fuel building.

The applicant wishes to present this application and if the application is granted without this evaluation being done, what it essentially amounts to will be a de

facto approval of a permanent high-level waste disposal at Unit 3 spent fuel pool, and let me explain how that will be. The application proposes to fill the spent fuel pool according to a configuration, which appears in the application; but, it does not present any information or evaluation as to how any of the highly irradiated spent fuel assemblies are eventually to be removed.

Now, we know that in time, they must be removed, because they must be put into a repository where they will be safe and secure for at least 10,000 years, and that is under federal law. Therefore, this application must include an evaluation of the potential for a cask drop and all of the issues that we just raised.

We point out that many analyses have shown a potential at U.S. nuclear power plants for significant consequences from a cask drop within a spent fuel building. Potential consequences include criticality, release of radioactive material, and loss of water from the pool. Administrative and other measures have been introduced at U.S. nuclear power plants to reduce the probability of a cask drop or to limit the areas where a drop could occur. Measures of those kind may not have been developed for Millstone Unit 3. In that event, it should be assumed that a cask drop could occur at any point within the spent fuel building and under the crane rails.

The consequences of such a drop should have been evaluated. Alternatively, the applicant seeks to take credit for administrative or other measures and, thereby, limit the evaluation of a cask drop and the opportunity to specify those measures and obtain NRC approval. And that, in essence, is our contention.

CHAIRMAN BECHHOEFER: Well, what about the so called ban on moving loads like casks that present --

MS. BURTON: Pardon me?

CHAIRMAN BECHHOEFER: Is there not a current tech spec, which bans such movement? Wouldn't that say that they'd have to get a tech spec change, in order to lead to the transport that might cause the problem? And if so, there would be a chance later on to do that -- to contest that, I'm sorry.

MS. BURTON: Our position is that in this evaluation, all possible scenarios should be considered, including the potential for a cask drop, which could -- which has the potential to impact the irradiated fuel in the pool. I believe that there is a presently in other plants for walls to be constructed, in order to avoid these kind of potential impacts from leading to a situation where irradiated fuel assemblies are -- and subject to damage and potential criticality accidents.

CHAIRMAN BECHHOEFER: Before we even get there

though, if they are barred from -- by their tech spec from transporting the cask over the fuel, why does not that perforce -- say that it's not relevant to this proceeding, because it couldn't happen?

MS. BURTON: Well, we're saying that this proceeding --

CHAIRMAN BECHHOEFER: And this is not considered in the consequences, which you might have to consider, if you considered -- if there was a situation to authorize the transport. So, if we can't even consider it -- if it's not pertinent to the particular application, my question is the alleged consequences don't make any difference, because they wouldn't occur without further license amendment.

MS. BURTON: Well, I think we need to recognize that this facility, this pool building, in practical fact, a high-level waste dump, and that would violate federal law. And it has not been down graded and there has not been an environmental impact statement assessing this site as a permanent high-level waste depository. That needs to be considered, as part of this application. It cannot be divorced. That is divorcing reality from the truth of the facts of the matter. So, that is why we believe that the applicant is compelled to consider and analyze all scenarios, including this cask scenario we have interposed in contention three.

JUDGE KELBER: Let me see if I can summarize your case succinctly. You're saying the fuel either must be removed or this is a high-level waste repository?

MS. BURTON: At some point.

JUDGE KELBER: Yes, I understand that. If the fuel is to be moved, it must be moved in a cask -- a heavy cask. It has -- we must consider the cask drop. That, I think, is what you're saying in a nutshell.

MS. BURTON: Well --

JUDGE KELBER: Now, what I'm going to ask you is this: is it unreasonable to expect someone to take two bites at a problem? The problem is, of course, what to do with the spent fuel. And is it unreasonable to say to that -- to say we'll take two bites at it and the first bite will decide where we're going to start and the second bite we're going to decide how we're going to move it from the start and ship it to the National Waste Repository? In other words, why do we have to deal with the second bite along with the first bite?

MS. BURTON: There's a very easy answer to that and that is that if we never get to the second bite, we will all have to live with the first bite, on time and very unsafe conditions. And I'll point out that the first bite does include, in Attachment IV of page six, that is the chart that shows the configuration of the pool and there is

-- shown in that configuration, in the right -- far right upper corner, the cask pit, and that is because. apparently, the applicant believes that that is part of the information, which is pertinent to this proceeding. There is cask pit. That is the location where a cask, at some point, will have to be put, in order to remove this highly irradiated material from this pool.

It is our contention that the -- all the credible potential scenarios need to be fully analyzed and evaluated at this stage. The application can't amount to a de facto pool of a low amount, high radioactive repository, which violates federal law, and that is the waste disposal regulations.

CHAIRMAN BECHHOEFER: Uh --

JUDGE KELBER: Before you ask that --

CHAIRMAN BECHHOEFER: Okay.

JUDGE KELBER: In other words, what you're saying is that depicting the cask opens the door to the consideration of a cask, itself; is that correct?

MS. BURTON: Uh-huh.

JUDGE KELBER: Is that your point, that mentioning -- that is depicting the cask, it opens the door to discussion now of movement of a cask?

MS. BURTON: I think it could be better stated that --

JUDGE KELBER: Please do.

MS. BURTON: -- that this instance -- an application to increase the storage capacity of the fuel without a way to get out, and the way to get out is something that has to be considered before you allow it to go in, at least that's what we believe.

CHAIRMAN BECHHOEFER: All right. Well, perhaps I should ask the other parties, but I believe there's a time limit as to the amount of time that the pool can even operate currently. That would have to be, I guess, extended, if you wanted to keep fuel there forever. My guess is it doesn't go beyond the term of the license, which is not more than 20 or 30 years from now, whatever that is. I may be wrong, though, so maybe the other parties could -- know something more about that. Ms. Hodgdon?

MS. HODGDON: I do, but it's not my turn.

[Laughter.]

CHAIRMAN BECHHOEFER: I know that.

MS. HODGDON: I would be happy to.

CHAIRMAN BECHHOEFER: Well, when we get to you --

MS. HODGDON: I can speak to that first or I would be happy to speak to it --

MR. REPKA: I would be happy to, as well,

CHAIRMAN BECHHOEFER: When we get to you. Let's

go to Mr. Repka first.

MR. REPKA: Well, let me start by just making a couple of points. Ms. Burton characterized our position on this issue as frivolous and I would say our position is simple, but it's not frivolous. Our position is that the kinds of issues being raised are outside the scope of this proceeding.

The argument that because we are putting fuel in the pool, we one day have to -- we will have to remove it, therefore, in this proceeding, we have to address all aspects of removing it, that argument is simply illogical and that argument is frivolous. I mean, by extension, that would mean, in this proceeding, we would have to address the cask design. We would have to address transportation of the cask to Yucca Mountain. In fact, we'd probably have to address the licensing of Yucca Mountain right here.

CHAIRMAN BECHHOEFER: And maybe that's not so bad.

MR. REPKA: I assure that would be very --

[Applause.]

MR. REPKA: But the argument simply doesn't stand up to logic. Beyond that, with respect to -- with respect to movements of the cask around the spent fuel pool, there is a tech spec that would eliminate movement anywhere near the irradiated assemblies in the spent fuel pool.

With respect to the design of a cask pit area, itself, that was an issue actually that was addressed during initial licensing of Millstone. So, it's not -- that's not necessarily an issue we're saying we'll put that off until the future. The design of the cask pit area and the use of heavy loads were, in fact, addressed during the design licensing of Unit 3. Now, what would need to be addressed in the future is -- with respect to movements around the cask pit area of the cask, would be specific procedures for doing that, based upon specific cask designs or whatever that's determined to be utilized. And, clearly, those issues are not within the scope of this proceeding right here.

So, the argument is very simple. The kinds of issues we're talking about are outside the scope and some have, in fact, already been addressed and some will be addressed in the future, when it is appropriate to do that.

CHAIRMAN BECHHOEFER: Ms. Hodgdon?

MS. HODGDON: Yes, I will point out, first of all, that this appears to be a new contention. In response to the contention that's filed, the staff gave a very simple and I think appropriate answer, which was that the licensee had not applied to move the cask. The application before this Board does not involve moving a cask, therefore, we think they don't have to consider dropping it; and that it

seems to be not an idea of the plant, except so many others are being brought up and the Board has asked so many questions, I admit that I don't know about, and so I'm going to have to refresh my recollection.

CHAIRMAN BECHHOEFER: Well --

MS. HODGDON: But, if you will allow me, I'll say what I have to say, and then we can --

CHAIRMAN BECHHOEFER: Well, just one thing related to what you just said, I assume that if you wanted to move the cask, you'd have to apply for a tech spec change to do that.

MS. HODGDON: In this particular case, you would.

CHAIRMAN BECHHOEFER: Yes.

MS. HODGDON: As you probably know, the Commission's regulations in Part 50 allow for a general license to be given for cask storage under -- a general license under Part 50, for cask storage under Part 72, and, therefore, unless you had a tech spec that precluded you moving the cask, you might be able to do -- to move a cask and so forth without there being a penalty whatsoever on dry cask storage. Here, that's not the case, because they -- their tech specs preclude their moving the cask into the pool area. And they would need such an amendment and they will apply for such an amendment, I presume, at a time where it seemed to be appropriate.

She said "shipping cask." Well, all right, that's fine, shipping cask, I'm corrected, to that extent. But, she meant the shipping cask -- I'm not going to go into cask beyond that. If it's presumed that the stuff is going to be sent directly, then it's going to have to be there for a while anyway, because there are limitations on the use of those casks regarding the age of the fuel.

I just want to address the other points that she made. She said that it violated federal law and, in fact, it would not, because she referred to the Waste Policy Act of 1982, which specifically allows for storage and, in fact, allows in Subpart K -- I'm sure you remember it -- allows for consideration, on an accelerated basis, of storage, both dry and wet.

And beyond that, I wasn't going to bring this up, but the new contention that was put forth this morning seems to invite this notation that the Commission's regulations in 10 CFR 51.23, temporary storage of spent fuel after cessation of nuclear reactor operation generic determination with no significant environmental impact. And so, the Commission has made a generic determination that, if necessary, spent fuel generated in a reactor can be stored safely and without significant environmental impacts, or at least the years beyond the license for operation, which include the term of a revised or renewed license, that

reactor, the spent fuel storage, basically, for either on-site or off-site independent spent fuel storage installations.

And I'm not going to read the rest of that. I just call everybody's attention to the fact that the Commission's ruling of this generic finding. I wouldn't have brought it up, because this doesn't seem to be applicable, except in -- with respect to what's being raised here this morning.

CHAIRMAN BECHHOEFER: That was the question I really was alluding to earlier, is there not some Commission established time limit, because it doesn't become a potential risk, in other words.

MS. HODGDON: The Commission --

CHAIRMAN BECHHOEFER: And you just read out what --

MS. HODGDON: The answer to your question, except that I would like to add a footnote.

CHAIRMAN BECHHOEFER: Okay.

MS. HODGDON: And that is there -- for the Commission makes this finding -- they first made this determination on August 31, 1984, amended September 18, 1990, and that's because they said that they would look at this again every five years. They looked at it again just the other day -- and I saw the notice in the Federal

Register; I don't have it with me, but I assume the Committee has seen it -- and they determined that that determination is still okay and they still feel that way. And I think they say, the Commission believes, with reasonable assurance, that these one-time geologic depositories will be available within the first quarter of the 21st century. The Commission, in its Federal Register notes the other day, still believes that.

So, I think that we're -- it seems that the licensee's planning with regard to this, their order of this, as well -- but, there's no reason to talk about moving the shipping cask, at this time.

MR. REPKA: ON that point, just to be clear, the reference to the waste confidence decision and review that Ms. Hodgdon is referring to was published in the Federal Register on December 6, and it's 64 Fed.Reg. 68005.

MS. HODGDON: Thank you.

MR. REPKA: Beyond that, I just want to respond to something Ms. Hodgdon just said. In talking about whether a tech spec amendment would be required, I think just to be clear, a tech spec amendment would be required to move a cask anywhere around irradiated fuel over the fuel, if, in fact, the tracks would permit you to do that, which cannot. But, beyond that, a license amendment would definitely be in order, with respect to -- or a general license, with respect

to ultimate storage, either on-site or shipments. With respect to movements in the cask pit area, those would require specific procedures to be developed that don't currently exist and they would be evaluated under appropriate regulations, such as 10 CFR 50.59, to determine what, if any, approval would be required.

But the fact of the matter is the design of the cask pit area was an issue. The movement of heavy loads around the cask pit area was addressed as part of initial licensing; in particular, in response to NUREG 0612, which was the control of heavy loads issue of the mid-'80s.

MS. BURTON: May I briefly respond?

CHAIRMAN BECHHOEFER: Yes.

MS. BURTON: We understand from what we have heard that the applicant has admitted that it has not adopted procedures to avoid the potential problems, which we have postulated in contention three, and that certainly underscores the validity of our contention.

Also, I'd like to point out that 10 CFR 51.23, referred to by the staff, actually has application to plants, which have ceased operations. I must inquire if the applicant believes it is one of those, if it today would meet that standard, because it has intentions of possibly ceasing operation.

MR. REPKA: I'd like to respond to that, because

what I said, that there are not specific procedures, I meant literally that, there are not specific procedures adopted. That's not the concerns haven't been addressed. In fact, just to be very clear, the issue of movements of casks around the cask pit area was addressed in a letter, March 14, 1985, from Northeast Nuclear to the NRC, docket number 50-423-B-11406, and it specifically addresses the use of energy absorption devices to preclude the possibility of cask tumble accidents from damaging the spent fuel pool and other similar issues. Those issues have been addressed.

To respond to that, Judge Bechhoefer, they were subject to a hearing, in that the operating license amendment was subject to a hearing. There was no hearing on the issues. The fact of the matter is they are outside of this proceeding, because this proposal involves no changes whatsoever in that area.

MS. BURTON: May I respond?

CHAIRMAN BECHHOEFER: Yes.

MS. BURTON: I understand that the letter from 1985 may be outdated, because, at this time, the casks are much heavier than they were then.

CHAIRMAN BECHHOEFER: Well, it's my understanding that before they can move them, they may need some sort of a license amendment, a tech spec change.

MR. REPKA: We would need appropriate review.

CHAIRMAN BECHHOEFER: Yeah. So, let's move on to contention four.

MS. BURTON: May I just say that that really leads us to the point of emphasizing why we believe that these issues need to be considered now before the storage facility is filled with more radioactive waste, rather than later.

MS. HODGDON: If I may address that? It might be appropriate for these petitioners to file a petition with the Commission under 2.206, if they believe that these issues need to be considered now. This is clearly not within the scope of this license amendment and the Board should not waste its time.

JUDGE KELBER: I think Ms. Hodgdon's suggestion should be taken well. And there's a limit under the rules and regulations set forth by the Commission to what we can do. But, certainly, considerations such as you've raised are appropriate to be addressed in a 2.206 petition and I think her advice is a good one, regardless of what we do with the subject.

Did you want to move on to contention four?

CHAIRMAN BECHHOEFER: Yes, yes, yes.

JUDGE KELBER: In addressing contention four, please define for me what you mean when you use the term "criticality" here, because there are limits to High-level that -- one thing, I always understood criticality to be K

effective equals one. If you don't mean that, please say so.

[Pause.]

CHAIRMAN BECHHOEFER: You may proceed.

MS. BURTON: Thank you. Contention four, undue and unnecessary risk to worker and public health and safety, the existing spent fuel storage racks at Millstone Unit 3 rely on physical separation, to ensure that irradiated fuel assemblies are maintained in a subcritical configuration. Dry storage method, also, rely on the physical protection to guard against criticality accidents. The application seeks to maximize the irradiated fuel assembly capacity in the Millstone Unit 3 spent fuel pool by trading physical protection against criticality for a complex array of administrative controls. This tradeoff increases the likelihood of a criticality accident.

Responding to Judge Kelber, it is our position here that there are two issues will be thresholds of criticality. One is the regulatory threshold of .95, with a safety factor of .05 to be adhered to. It is our contention that the application does involve the potential of not meeting that standard and, thereby, leading to potential criticality. In addition, we recognize the value one of criticality, whereby critical accident conditions may occur. We allege that both conditions are presented potentially by

this application.

Specifically with reference to the administrative controls, the application proposes to contain three distinct administratively controlled storage regions, as shown in the applicant's figure, page one of Attachment III of the application. Further, Region 2 racks would be licensed to store 754 assemblies. This storage area in Region 2 will have more restrictive burn up and enrichment restrictions than Region 1 racks and use a poor out of core storage configuration.

Further, the 1.40 storage pattern refers to the blocked location in the Region 1 fuel storage rack, and while adjacent and diagonal, Region 1 or Region 2 locations surrounding the blocked location, the blocked location is poor criticality control. And further, a jump ahead here in the materials, Region 3 racks can store 756 assemblies. The storage in Region 3 racks will have more restrictive burn up enrichment restriction than Region 2 racks. Region 3 racks will allow credit for decay of fissile plutonium and buildup of americium, which reduce reactivity, as a function of decay time credit. Therefore, we contend that the new administrative controls, which are presently not needed to protect plant workers and the public of irradiated fuel assemblies stored at Millstone Unit 3, rely on complicated array of factors, such as burn up, enrichment, and decay

time.

As the September 1999 criticality accident in Japan tragically demonstrated, administrative controls are not foolproof. As the September 1999 loss of a U.S. spacecraft, due to a mathematical error dramatically demonstrated, even highly trained and experienced rocket scientists can make mistakes. As the March 1996 issue of Time Magazine and the December 1997 civil penalty imposed on the applicant demonstrated, workers at the Millstone, through conversation, have failed in the past to adhere to far simpler administrative controls governing spent fuel pool activities. Therefore, the proposed activity represents an undue and unnecessary risk, because of all the additional administrative controls.

Finally, we point out that the first and third violations listed by the NRC in the December 1997 notice of violation, which the applicant did not contest and paid on December 19, 1997, involved spent fuel pool problems at Millstone. The third violation specifically involved the applicant's failure to maintain the plant's spent fuel pool configuration, in conformance with design and accident analyses performed by Holtech International. Thus, this licensee has failed in the past to effective invoke administrative controls. This failure clearly demonstrates that trading physical protection for administrative controls

represents an undue and unnecessary risk. The applicant could provide sufficient onsite spent fuel storage capacity to satisfy its needs without this increased reliance on administrative controls.

And that sets forth our contention number four.

CHAIRMAN BECHHOEFER: Okay. Ms. Burton, I have one question first. The new proposal -- the current proposal doesn't seem to necessarily trade physical protection for administrative controls, because -- at least my understanding from what the other parties have said, there are existing administrative controls and, in the future, there will be -- there will be still physical protection and physical separation in certain areas. So, it's not a complete trade. Am I misunderstanding your statement a little bit?

MS. BURTON: Well, we recognize that there presently are administrative controls that are applied at the spent fuel pool. But what we are setting forth in this contention is that the application proposes to add additional administrative controls, which we maintain here are not a substitute for adequate configuration of the spent fuel pool and do increase the significant risk of a criticality accident.

CHAIRMAN BECHHOEFER: So, you're not asserting, in any way, that the existing physical protection would somehow

not be there anymore? It may not be adequate, but you're not saying it won't be there, I take it?

MS. BURTON: That's not exactly what we're saying. What we're saying is that this application proposes new administrative controls, which are not there today. In particular, the allowance of credit for decay, the fissile plutonium and buildup of americium, that is a new factor here at the spent fuel pool, which has not previously been dealt with through administrative controls and it carries with it the potential of a human error. And that is something that, as we've mentioned in another contention, really fundamentally violates the federal law through the general design criteria. But, I'll -- we'll be getting to that later.

CHAIRMAN BECHHOEFER: Okay. Mr. Repka?

MR. REPKA: First, in response to the contention as read, we responded to this in writing and I don't think that there's been anything new of significance added that our written response doesn't already address.

But beyond that, just to be clear, the current proposal doesn't -- does not involve trading physical controls for administrative controls and it doesn't even add new administrative controls. The current racks utilize geometry, boron neutron absorbers, spacing, administrative controls, physical process controls, such as burn up and

enrichment restrictions. The current proposal would use exactly the same range of controls. There is no tradeoff. There is no new type of administrative controls offered.

CHAIRMAN BECHHOEFER: Would the administrative controls be any different?

MR. REPKA: There would be differences in the controls. Obviously, the restrictions in burn up limitations for different regions will have changed to meet the profile of the new racks. But, there -- what the Commission -- if this is a challenge to those specific controls, as opposed to the general use of burn up and enrichment controls -- well, let me back up. There's two ways of reading the concern. One is this is a challenge for use of burn up and decay time and enrichment restrictions, and, clearly, there's no basis for that, because the current pool already uses that and almost every wet storage facility in the United States uses that as a conceptual matter.

But, if this were a specific challenge to specific changes in the curves related to burn up, enrichment, and decay time, they would -- what the Commission would expect in a contention is some specificity with respect to what the challenge is and some basis for that, and neither of which has been provided here. We have a general broad assault on administrative controls, which is without basis, without foundation, and simply ignores reality. Again, if this is a

change -- if this is an attack on specific proposed curves that would go into the tech specs, we haven't heard it, we haven't seen, and we don't know what the basis for that would be.

JUDGE COLE: I get the impression that Ms. Burton is saying that with these three different pools, different technical specifications, and the changes in operating procedures, and the use of burn up enrichment, decay time in each of these pools, by administrative controls, it's just getting to be so complicated that the probability of making a mistake is increased by these changes that were made. Do you agree with that or you disagree with that?

MR. REPKA: Do I agree that that's what she maintains or do I agree with that assertion? I think she does maintain that and I disagree with that assertion. Again, there's no basis to conclude that. There's reference to other human error situations, in which there's no nexus drawn between those situations, for example involving a spacecraft, and what's going to happen at the Millstone spent fuel pool. Obviously, human errors do occur. The pool is designed that way. The operation of the pool is designed with the recognition that human errors do occur. There is defense in depth; for example, the boron in the spent fuel pool to prevent criticality.

So, I think if the assertion is that it's too

complicated, there is no basis for that assertion. Just drawing and pointing to unrelated human errors is insufficient nexus.

JUDGE KELBER: In that regard, as a nuclear physicist, I wish people would stop regarding rocket scientists as the epitome of all science.

[Laughter.]

JUDGE KELBER: They are very fine people. Many of them are very fine engineers.

MR. REPKA: I suggest nuclear physicists, we could --

CHAIRMAN BECHHOEFER: Mr. Hodgdon?

MS. HODGDON: Mr. Weisman will address the next three contentions.

MR. WEISMAN: I think that the answer that we gave in our brief is sufficient. I will -- I'll say in a little bit different words, there are basically two problems with contention four. The first one is the petitioners have assumed the adequate basis and the second one is that the contention, as proposed, appears to be out of the scope of this proceeding.

The first, with respect to there being a basis, as Mr. Repka was saying, petitioners simply haven't shown how there is any deficiency in the proposed administrative controls or how there might be any other physical measure

that needed to be taken. With respect to your question, Judge Cole, about the probability, the petitioners didn't show in their supplement that there was an increase in probability. There's just simply no basis for that. To the extent that the petitioners are challenging the use of the administrative controls together with physical measures, that's already approved and it's already in use at Millstone 3, the spent fuel pool. So, it simply is out of scope.

CHAIRMAN BECHHOEFER: If the allegation is that there's a greater emphasis on administrative controls that there will be in future rather than in the past, that is a change. They recognize that there have been controls in the past. The claim now is that they are so complex and they mention past errors by Millstone personnel. Why isn't that good enough?

MR. WEISMAN: I think, Judge Bechhoefer, the reason it's not good enough is that there is simply no discussion of what is wrong with that -- what is the additional complexity? What's the -- what will that lead to?

CHAIRMAN BECHHOEFER: I think we have that spelled out in this.

MR. WEISMAN: But, Judge, I think that today, whenever there is a full core off-load, whenever there is a refueling, whenever spent fuel is removed and stored, each

one of those fuel assemblies has to be moved, it has to be moved according to administrative procedures that are in place. I don't -- there isn't -- in the future, each one of those fuel assemblies will, also, have to be moved. There will be an administrative procedure that governs the -- how each fuel assembly gets moved. Whether there are different restrictions in the tech specs and the fact the tech specs will have restrictions for where the different fuel assemblies may be moved, there has just simply been no showing that those are inadequate. Does that answer your question?

CHAIRMAN BECHHOEFER: No. Is that -- are the proposed procedures available and subject to examination?

MR. WEISMAN: Well, the proposed -- they are in the tech spec. The initial is in 4.9 through 13.1, and it's a requirement for administrative control for each region -- each of the proposed regions, 1, 2 and 3, in the -- as proposed by the amendment. So, the petitioner simply hasn't shown why those tech specs are inadequate.

MR. REPKA: Judge Bechhoefer?

CHAIRMAN BECHHOEFER: Yes.

MR. REPKA: May I just -- in response to, I guess, your question to Mr. Weisman, you made the -- you started by saying there was increased emphasis on administrative controls and they would add complexity. And I think what

Mr. Weisman is getting at and certainly what I believe to be the case is that there is no increased emphasis or added complexity. The administrative controls -- if you call the use of a region in the spent fuel pool an administrative control, which is something we can debate, but if you assume that, there is no increased emphasis or added complexity. It's exactly the same as before, only three regions instead of two; but the controls are the same. They're the same character, the same type, the same complexity. The procedures involved in putting fuel in their region are exactly what's being done now.

So, you can refer to human error events and other things and first-of-a-kind evolutions or space probes going to Mars, but the fact of the matter is the kinds of evolutions we're talking about here are things that have been done for years and we're not changing those types of procedures. The only change would be that it's three regions instead of two.

MS. BURTON: I have some comments.

CHAIRMAN BECHHOEFER: Yes.

MS. BURTON: We can't lose sight of the enforcement legacy at Northeast Utilities, where there has been a pronounced -- very pronounced problem, whereby administrative controls and proper use of those controls at that site over a decade of operation.

What we'd like to try to make clear is how very different these new administrative controls are from what is in place now. For instance, today, there is no need for calculations for delay -- excuse me -- decay of fissile plutonium, that isn't done at this time; nor is there an administrative procedure for -- that governs the buildup of americium. Moreover, presently, there is no administrative control that governs aging rates of the material; nor today is there a different standard applied to the different regions. Altogether, and I'm sorry I didn't make this clear, Dr. Cole, a step to my aid in clarifying what our position was here, but we believe it all adds up to a very much different atmosphere, placing a much greater burden on the workforce to protect the public health and safety.

Whereas, there are other ways that the applicant could achieve the same goal, or attempt to. Perhaps, they might cost a little bit more. Perhaps, if the applicant were to, for instance, consider employing another kind of rack device in the pool, that might involve some greater cost, that would make it possible for there to be more reliance on the physical configuration, so that there would necessarily be less reliance on the administrative controls. In other words, if there were -- I understand on the market there are more extensive racks than the ones that Northeast Utilities have selected. They have -- they are made so that

the boron chemistry -- there doesn't need to be so much administrative attention to the conditions of the fuel. This applicant did not opt to do that and has simply apparently chosen to take a more cost-effective course, but at the sacrifice of the public health and safety.

If the original replacement of the racks meets the standards, then we don't need to rely on administrative controls and shouldn't. That is -- that's a defect in this application and the public does not accept it.

CHAIRMAN BECHHOEFER: Well, don't they rely on administrative controls now? They exist?

MS. BURTON: We recognize that. But, again, we recognize the enforcement legacy and we would be introducing some historical materials later that suggests that it is a problem, that there are failures through administrative controls throughout the nuclear industry. Therefore, should most of them be proceeding to a point of greater reliance on more complex in lieu of all kinds of administrative controls? And we put that question forward here and we don't believe that the application appropriately addresses the safety risks from this emphasis -- on their emphasis on new administrative controls at greater complexities.

JUDGE KELBER: You introduced three items you listed as adding to the complexity: one is accounting for plutonium decay; two is accounting for americium buildup;

and three was accounting for aging of the fuel. But, aren't those all the same thing? I mean, let's not exaggerate the degree of complexity. We agree that it is a problem to be handled, but aren't those all three the same thing?

MS. BURTON: In a certain sense, it is probably --

JUDGE KELBER: I think in absolutely a sense. I think as a physics calculation, that's the way I would do it. I would calculate the age -- the decay by a well-known equation and I would get automatically the facility of that decay, the americium buildup, as a function of the age of the fuel. I don't see how you would do it any other way. You have to do that as part of managing the effect.

MS. BURTON: May I just --

CHAIRMAN BECHHOEFER: Yes.

MS. BURTON: Just to further clarify and actually make this clearer, what we are saying is really here, in this application, is the introduction of the aging factor the first time, as well as the business of the three regions in the pool, each of which has to apply to its own unique set of standards. That's very new, because, today, there's only one region and it has one set of standards. So, when the pool is broken down into three different regions with different sets of rules, that introduces all kinds of grounds for possible error that doesn't appear today.

MR. WEISMAN: Judge Bechhoefer, may I address that?

CHAIRMAN BECHHOEFER: Yes; yes, I'm sorry.

MR. WEISMAN: Oh, I'm sorry, it's not our turn.

MR. REPKA: I just want to say --

CHAIRMAN BECHHOEFER: Well, if Mr. Repka had any further comments --

MR. REPKA: Well, the only further comments I have is, again, you know, my comment was that with respect to trading physical controls for administrative controls and we're increasing our emphasis, I don't think the addition -- of going from two regions to three regions, there's any reason -- any basis for the concern that that's a new emphasis or a new type of administrative control. It's not.

We've heard here this morning some things about accounting for plutonium and americium and decay times and aging factors, that is the first we've seen that, in connection with this contention. And although there may be specific changes in procedures at Millstone relating to those factors, those are new concerns identified here for the first time and I don't believe necessarily a basis has been set forth for the proposition that that can't be done.

MS. BURTON: May I respond?

CHAIRMAN BECHHOEFER: Well, I don't think the claim is that it can't be done. I think the claim is that

will it be done properly, given the past history at the plant.

MR. REPKA: Well, I think that that's a -- to draw that inference from past history I think is an extreme stretch. I think that that would be inappropriate to do here. I think with respect -- if there's a challenge that says that the proposal in the tech specs, the fact that the numbers used for decay, if those are inaccurate or inappropriate or whatever, we would still need further specificity for this to be a valid contention, as to what exactly is wrong with those proposed restrictions and what the basis for that is. And we still haven't seen that.

CHAIRMAN BECHHOEFER: Well, I think the claim is a little bit different. The claim is that there --

MR. REPKA: I'm not sure what the claim is, at this point. The contention --

CHAIRMAN BECHHOEFER: Well, it seems to me --

MR. REPKA: -- as written was that administrative controls, i.e., regions, was unwarranted.

CHAIRMAN BECHHOEFER: The way I read it, I'm not sure which, maybe both, there are more calculations that have to be done, more administrative controls will have to be put into effect, and is -- there's, hence, a greater likelihood of human error, and there are some examples of human error.

JUDGE KELBER: As long as we're --

CHAIRMAN BECHHOEFER: And that's how I interrupt the claim.

JUDGE KELBER: As long as we're sticking what is written, as I read it, the two paragraphs of the contention, that says -- the second paragraphs says, "Northeast Utilities -- the application seeks to maximize the fuel assembly capacity in the Millstone Unit 3 spent fuel pool by trading physical protection against criticality for a complex array of administrative controls. This tradeoff increases the likelihood of a criticality accident."

Now, let me ask: if these administrative controls are breached for whatever reason, will the plant be in violation of the limits set forth in 50.68? Will the fuel pool ever go critical, that is to say have a K effective of one, if anyone of these administrative controls were breached?

MR. REPKA: For the design basis events, including the fuel handling accident and the misloading accident, the answer is no.

JUDGE KELBER: Okay.

CHAIRMAN BECHHOEFER: Mr. Weisman?

MR. WEISMAN: I just wanted to correct a misstatement the petitioners said, that there was now one region and one standard. Well, there's only one kind of

rack in the pool right now, but there are two different standards for loading the two different regions in the current racks. So, they are certainly going to be adding, by adding another region, and they happen to be doing it for different kinds of racks. So, it was, in fact, misstated; there are two different regions in the current plant.

JUDGE KELBER: Administratively, there are two regions.

MR. WEISMAN: Administratively controlled regions, based on burn up, based on the condition of the pool -- I mean, the fuel.

JUDGE KELBER: Thank you.

MR. CAMPER: So, you'll go from two to three --

MR. WEISMAN: Yes.

CHAIRMAN BECHHOEFER: -- essentially, correct?

MR. WEISMAN: Yes.

CHAIRMAN BECHHOEFER: Ms. Burton?

MS. BURTON: The question that Dr. Kelber put to the applicant, as far as if there were a breach in these administrative controls, would a fuel pool have the potential to go critical, we don't agree with the answer that you heard from the applicant, because it would not hold in the case where boron would not maintain at the appropriate level within the fuel pool. And as we mention elsewhere, the contention we are arguing -- we have an issue

concerning the boron that has been enumerized. And, in fact, the boron is not sufficient in the pool, under our critical scenarios that we present that could lead to that situation, then we do believe that this has a potential, the breach of administrative controls to the different counties.

CHAIRMAN BECHHOEFER: Okay. We're getting into the next contention, as we do this. But, is that based on calculations of some sort? Or these are -- let's just address it very briefly, these are calculations based on validated codes?

MR. REPKA: I assume these are -- these are codes for calculations.

CHAIRMAN BECHHOEFER: But, they said it wouldn't go critical.

MR. REPKA: The boron was to prevent that from occurring.

DR. KELBER: Well, I asked -- excuse me, I asked carefully, if a breach of administrative controls would result in a breach of regulation 10 CFR 50.68. 10 CFR 50.68 states that if -- in the absence of sizable boron, they cannot exceed for -- I believe it's a design basis accident -- it cannot exceed 0.98.

Okay, I'll read the appropriate phrase. It's subparagraph B(3), under 50.68: "If optimum moderation of fresh fuel in the fresh storage fuel -- fresh fuel storage

racks occurs, then the racks are assumed to be fuel of the maximum fuel reactivity and build at a low density hydrogenous fluid. The K effective corresponding to the optimum moderation must not exceed 0.98 at a 95 percent probability, 95 percent confidence level. This evaluation need not be performed if administrative controls and/or design features prevent such moderation or fresh fuel storage racks are not used." That was the limit I was referring to.

MR. REPKA: Judge Kelber, I don't think for the fresh fuel and the 0.98 number precisely -- we can't verify that, that the number is 0.98. With respect to the spent fuel pool in B(4), it talks about .95 and then with credit for boron. They are slightly different parameters maintaining subcritical. And my answer to your question was that under those conditions, we would -- the fuel would remain subcritical.

MS. BURTON: There may be an inconsistency. I would refer the Board to page 4.9 of Attachment V of the application, where the applicant took credit for boron in its analysis.

MR. REPKA: I don't think there's any inconsistency. The analysis credits boron for the accident evaluations. It does not credit boron for normal conditions.

MR. WEISMAN: I think that we're getting into contention five.

JUDGE KELBER: Yes. Well, the two are tied together, because the outcome of the complaint about contention four -- yes, we have gotten into contention five. The complaint on contention four specifically is that by trading physical protection against criticality for complex administrative controls, this tradeoff increases the likelihood of a criticality accident. What we're asking now is what is the basis for asserting that there is an increased likelihood of a criticality accident and, yes, that is at the basis of contention five, as well.

MR. WEISMAN: Okay. I guess I would point out that the petitioners have control over how they draft their contentions. They're separating one -- contention four --

JUDGE KELBER: Yeah --

MR. WEISMAN: -- and one in contention five.

JUDGE KELBER: -- I understand. I find it very difficult to understand the reason for separation, myself. Be that as it may, we've got to deal with them. All right, let's finish up whatever we have in four and then take five right after lunch.

MS. BURTON: May I? At this time, one of our consulting experts, Dr. Thompson, would like to specifically address this point -- this technical point. I think it

would be of aid.

MR. REPKA: I would object to that, because I don't believe this is an evidentiary hearing.

CHAIRMAN BECHHOEFER: Well, we're not --

JUDGE KELBER: No.

CHAIRMAN BECHHOEFER: -- accepting it as evidence, but as an explanation for the contention. This is not evidence, as such; but, if it's material, I think we can take it into account. Pardon?

MR. WEISMAN: I'm sorry. Dr. Thompson's response would be -- is there any question that Mr. Lochbaum sponsored contention four. But, perhaps --

CHAIRMAN BECHHOEFER: Well, just to explain what it means, I think we can hear from him. This is not -- no, this is not something for voir dire, at this stage; so, we'll listen to your explanation.

DR. THOMPSON: Okay. This is a brief response to Judge Kelber and criticality occur in the pool or not. And, effective, particularly, one pool per -- is what I find is criticality.

It's very difficult to get plant licensees or the NRC staff to address this question in a straightforward technical manner. There is a lot of discussion about what combinations of events are credible or incredible in a pool. Recently, we -- the NRC staff performed a calculation, in

connection with the Sharon Harris grant, where they postulated fresh fuel in one of the racks related to Harris, in the absence of boron, and determined that that was approximately 1.2, which is currently around the criticality accident. So, that instance demonstrates the combinations of circumstances and we postulated that would cause a criticality accident.

There's a lot of legal and regulatory debate that would be part of an evidentiary hearing about those combinations are credible for regulatory purposes.

JUDGE KELBER: That's not answering my question. My question is: do you have a basis, such as calculations using validated codes, for asserting that under a violation of the administrative controls, this pool -- not Sharon Harris, but this pool would go critical? And the answer was you're going to rely on evidence supplied by the applicant. Fine, the staff can speak to that, as well as anybody.

DR. THOMPSON: That is -- to respond, I think it's unreasonable to expect, in a case like this, to run criticality --

JUDGE KELBER: It may --

DR. THOMPSON: There's a very strong basis -- inference -- scientific inference to demonstrate that credible conditions of criticality --

JUDGE KELBER: I don't want to get into an

argument about what is an evidentiary matter here. The sole question we're asking is: is there a basis for the complaint that the complexity of the administrative controls will lead to the possibility of a criticality accident? That's all we're addressing.

MR. WEISMAN: Well, Your Honor, I understated here my -- it doesn't appear to me that there's any suggestion in the bases set forth by the petitioner that there could be a criticality resulting from these administrative controls.

MR. REPKA: And I agree with that and the answer is provided in the report included with the Northeast Nuclear application. Table 4.2.8, for example, presents the results of the criticality evaluations. Under all normal conditions, with no boron credit, for example, the K effective is maintained less than 0.95. Under design basis accident conditions, with boron credit, the K effective is maintained less than 0.95. Under design basis accident conditions, with boron credit, K effective is less than 0.95. There's been no basis presented that suggests otherwise; certainly no basis as can be provided by us that suggests otherwise.

And then a lot of this, as with contention five, is premised upon -- somehow premised upon the concern of the missing boron, which we'll get to. But, there's absolutely no basis for that issue, that there will be no boron in the

spent fuel pool. In fact, there will be, there has been, there always will be. It's -- the boron concentration is much, much higher than what's credited in any of these evaluations. There are just a lot of conservatisms built in here and there's no basis to assume it's going to be a criticality event.

JUDGE KELBER: Don't follow the Osmidian trap and claim that there will always be.

MR. REPKA: Good point.

JUDGE KELBER: For the duration of the license perhaps, but not for always -- not forever.

MR. REPKA: Good point, but boron is maintained in the spent fuel pool at all times.

CHAIRMAN BECHHOEFER: Well, that gets into the next contention. We're going to do it after lunch, actually.

MR. REPKA: Right. Let me assure you before lunch, the boron is not going anywhere.

MS. BURTON: May I respond briefly --

CHAIRMAN BECHHOEFER: Yes.

MS. BURTON: -- to this point, to note that it wasn't long ago, I've alluded to that, boron did go somewhere, because there was a leakage in the spent fuel pool that went undetected for something like 12 hours and, presumably, the water that leaked out did contain boron and

that meant that there was some change that occurred to the fluid in the pool. We're concerned that that represents an example of a misuse of an administrative control at Millstone. We have made a nexus here.

Where our concern is that -- well, basically, our response here is -- that Thomas Jefferson once asserted, we find this truth to be self evident. The administrative controls are the utilities physical -- the utilities barrier to criticality, to the seriousness of accident. And if they are not a part -- if they're misused, that is the ultimate inevitable obvious potential consequence. And that is why we have set forth this contention and was asserted separately from the following one, which is more directed specifically to judicial authority.

JUDGE KELBER: Okay.

CHAIRMAN BECHHOEFER: I think we'll break for lunch. Is an hour enough for everybody to -- or does it take longer to order -- if we all go to the restaurant here, it probably will take longer.

MS. HODGDON: Excuse me, Judge Bechhoefer.

CHAIRMAN BECHHOEFER: Yes.

MS. HODGDON: We have an hour -- we're willing to go a few minutes later in the --

CHAIRMAN BECHHOEFER: Yes.

MS. HODGDON: A tradeoff --

JUDGE KELBER: One fifteen rather than 1:30? We'll meet back at 1:30.

CHAIRMAN BECHHOEFER: Let's resume at 1:30.

[Whereupon, the interview was recessed, to reconvene at 1:30 p.m., this same day.]

AFTERNOON SESSION

[1:30 p.m.]

CHAIRMAN BECHHOEFER: Back on the record. Before we get into contention five, any preliminary matters anybody wants to raise?

[No response.]

CHAIRMAN BECHHOEFER: If not, let's proceed to contention five. Ms. Burton?

MS. BURTON: Good afternoon. Contention five: significant increase in probability of criticality accident. The applicant proposed to eliminate an existing barrier against inadvertent criticality and the spent fuel pool at Millstone Unit 3. The present technical specifications require soluble boron to be maintained in spent fuel pool water at all times. The applicant proposes to change the requirement for soluble boron in the spent fuel pool as follows: the proposed technical specifications will require a minimum concentration of 800 parts per million of soluble boron in its pool water during fuel movement, to assure K effective will remain less than or equal to 0.95, assuming a drop or misloaded fuel assembly. The surveillance interval for this soluble boron concentration in the proposed technical specifications is consistent with Westinghouse improved STS, standard technical specifications 3.7.16. The petitioners contend that the application represents a

significant increase in the probability of a criticality accident.

And if I -- I think it would be helpful if I read on for the enlightenment of those who are attending, who haven't seen these materials. If I may?

CHAIRMAN BECHHOEFER: Go ahead.

MS. BURTON: The present technical specifications for Millstone Unit 3 require soluble boron to be maintained with the spent fuel pool water anytime irradiated fuel assemblies are stored in the pool. The proposed change would require soluble boron to be maintained only during fuel movements, not at times between fuel movements, while irradiated fuel assemblies are stored in the pool. The evaluations presented by the applicant clearly stated that a single fuel movement error, which is a credible event within the plant's design and licensing basis, can result in the required criticality margin being violated, unless there is soluble boron in the spent fuel pool water.

As the application states, the inadvertent misplacement of fresh fuel activity has the potential for exceeding the limiting activities should there be a concurrent and independent accident condition resulting in the loss of all soluble poison. Assuring the presence of soluble poison during fuel handling operations will preclude the possibility of the simultaneous occurrence of the two

independent accident conditions. The largest reactivity increase would occur, if a fresh fuel assembly of 5.0 -- is it weight percent, 235 U enrichment were to be inadvertently loaded into an empty cell in Region 3, with the remainder of the rack fully loaded, with fuel of the highest permissible reactivity. Under this accident condition, credit for the presence of soluble poison is permitted by the NRC guidelines. Calculations indicate that 800 parts per million soluble boron, that is to be required by the technical specifications during fuel handling operations, is more than adequate to assure that the limiting K effective of 0.945 is not exceeded.

And the application continues, with the assumption that boraflex panels are replaced by water, the moderator temperature coefficient of reactivity in Region 3 is positive. Therefore, an increase in spent fuel pool temperature above the normal operating conditions, in other words, above 160 degrees Fahrenheit, has the potential for exceeding the limiting reactivity in Region 3, should there be a concurrent and independent accident condition resulting in the loss of all soluble poison. Calculations indicate that 100 parts per million soluble boron is more than adequate to assure that the limiting K effective of 0.945 is not exceeded for temperatures greater than 160 degrees Fahrenheit and boiling.

Now, we maintain that if the technical specifications for Millstone Unit 3 are changed, as requested by the applicant, it is credible that a human error could result in the wrong fuel assembly being loaded into a Region 3 rack; that such an error is credible is implicitly conceded by the applicant's evaluation for such an event. With the soluble boron concentrations required by the revised technical specifications during fuel movements, this loading error would not cause a criticality. But, once the fuel movements are stopped, the revised technical specifications no longer require soluble boron to be maintained in the spent fuel pool water. If the misloaded fuel assembly remains undetected and the soluble boron concentration drops, a criticality could occur. The NRC's records include reports of misloaded fuel assemblies remaining undetected for long periods of time. Thus, the proposed activity significantly increases the probability of a criticality accident in the spent fuel pool, because it removes the present requirement to always maintain soluble boron in the pool's water.

The surveillance requirement that the applicant proposes, with respect to the soluble boron concentration in the spent fuel pool water is as follows: 4.9.1.2 verify that the soluble boron concentration is greater than or equal to 800 parts per million prior to any movement of a

fuel assembly into or within the spent fuel pool and every seven days thereafter during fuel movement. The application posits that a misloading error may be made in the Millstone Unit 3 spent fuel pool. The applicant's evaluation of such a misloading error determined that a configuration, which could yield criticality if it were not for the soluble boron in the water, yet the applicant proposes to remove the soluble boron technical specification without at least providing a surveillance requirement to check for misloaded fuel assemblies at the termination of fuel movements.

When I mentioned before that there is some history before the NRC, I particularly refer to one instance involving Oyster Creek, New Jersey, where between February and August of 1986, there were some 184 mispositions of fresh assemblies of spent fuel assemblies noted. They were not noted until January 1987, some six months later. The NRC records have documents of many other mispositionings of fuel assemblies in these pools, which have gone undetected.

We have concern that -- well, we have several concerns that we raise in this contention. One is the absence of surveillance, other than during fuel movements, and the very fact that that application proposes to use soluble boron at all suggest to us that it is a recognition that the margin of the K effective cannot otherwise be maintained. If that is the case, then, we would suggest to

you that there would be a need to have regular surveillance of the boron concentration in the pool. That is eliminated in this technical specification and that raises a safety risk.

We can, also, conclude from the rather dismal history of the frequency of mispositioning of fresh assemblies in the spent fuel pools that the mispositioning of fuel assemblies is not only a credible scenario, but a rather likely event and, therefore, that is an issue that bears heavily on this contention. And that is what we have to say for contention five.

CHAIRMAN BECHHOEFER: Mr. Repka?

MR. REPKA: Okay. Several things I would like to. First, the proposal does not eliminate a barrier to criticality, as is contended. The proposal does not eliminate boron in a spent fuel pool. Boron is maintained in the spent fuel pool and will be maintained in the spent fuel pool. What the proposal does is it credits boron only for accident conditions and for all normal conditions, boron is not needed to prevent criticality. It's a barrier that's not required, which is different from saying it won't be there, because it will be there. But, it's not required under normal conditions to be credit in the criticality evaluation.

With respect to the design basis accidents, the

fuel handling accident and the misloading assembly, boron in the pool is credited at 800 parts per million and does meet with the boron -- the K effectiveness is maintained at less than 0.95, which does provide a .05 margin to criticality. So, there is no elimination of boron. There is no eliminate of a barrier.

On a second level, this contention seems to be --

CHAIRMAN BECHHOEFER: Well, is there not an elimination of a requirement?

MR. REPKA: I was going to get to that. The second level of this contention is that the tech spec, as proposed, would require a tech spec surveillance of the boron concentration only prior to fuel movements. However, there's -- and that somehow this would lead to no surveillance of boron or no boron at times after the fuel movement; if, for example, a misloaded assembly is left and is not discovered for some time. But, there's no basis to maintain that that tech spec surveillance is required, at that point, for several reasons.

First, the tech specs, as they existed for this unit prior to amendment 1.58, called for a tech spec surveillance on the boron only prior to fuel movements. This proposal simply restores the tech specs to their preexisting formation. They were changed, at that point, as

a conservative measure to address the potential for degradation of K boraflex. We are not longer taking credit for K effective boraflex, as a conservative measure, and, therefore, now we can restore the tech specs to their preexisting configuration.

Beyond that, there --

CHAIRMAN BECHHOEFER: When you add a surveillance requirement for boraflex, what did your proposal -- what did it say -- what was the reason given for adding it?

MR. REPKA: Well, the concern, at that point, was that if the boraflex was degraded, the way some industry experience suggests it is -- if you had an earthquake, for example, you could postulate that all of the boraflex would become brittle and tumble to the bottom of the pool. So, at that point, there was -- the need for boron -- boron needed to be credited at all times; and, therefore, as a conservative measure, it was surveilled at all times.

In reality, after the fuel movement is completed and the tech is -- surveillance is completed, the boron doesn't go anywhere between fuel movements. If there's any evaporation from the pool, the boron is left behind. If there is any -- there is no dilution of the boron, because the pool is -- leakage from the pool is addressed by makeup capability and the boron is not diluted, at that point. So, there's no basis to say that this surveillance on the boron

concentration needs to be a tech spec surveillance.

CHAIRMAN BECHHOEFER: Well, but if you've got it now, why shouldn't you just keep it?

MR. REPKA: Because, the situation now is different. We're not crediting the boron for normal operating conditions. We're not crediting -- we're not -- and in addition to that, the boraflex, in certain regions of the pool, still exists. We have boral boxes in the pool that the earthquake will not -- even a postulated earthquake would not affect the boral boxes and the proposed new racks. So, there's no necessity to verify by tech spec the boron concentration.

JUDGE COLE: Sir, how difficult is it to measure boron in the fuel pool?

MR. REPKA: It's not. In fact, it's done with relative frequency. I want to say 72 hours -- I can't say. And, in fact, I don't think there is any proposal to alter that actual real world surveillance. It just would not be a tech spec surveillance. It's my understanding that that particular chemistry sampling is not addressed just to boron; it's addressed to a number of things in the pool.

JUDGE COLE: Do you think that this proposed contention would go away, if you went back to what you were doing with respect to measurement of boron?

MR. REPKA: Well, I -- if there were sufficient

basis to say this had to be a tech spec and we went back to it, I would certainly assume that this contention would go away.

JUDGE COLE: Particularly if it's not too much trouble to measure.

MR. REPKA: Right.

JUDGE COLE: And it isn't at its safety feature, which is relatively cheap.

MR. REPKA: The surveillance?

JUDGE COLE: Yes.

MR. REPKA: Yeah, I believe that's something they would be doing anyway.

JUDGE COLE: All right.

JUDGE KELBER: How much of reactivity is held on by the boron?

MR. REPKA: That's a question I couldn't presume to answer. Again, it depends on what conditions you're -- you're not crediting the boron at all for normal conditions.

JUDGE KELBER: I understand under normal conditions, you have reactivity of .945 and Region 3 uses the highest reactivity of any of the regions.

MR. REPKA: Right.

JUDGE KELBER: Multiplication of roughly a little over 20.

MR. REPKA: Actually, let me try to answer it this

way. There's no credit for boron under normal conditions. The accident analysis is a new fuel -- take a new fuel assembly and put it in the middle of a Region 3 rack, the most reactive fuel. And if you take no credit for the boron, no credit for boraflex that's there, and there's no boral in that region, my understanding it the criticality numbers would be something on the order of .995. So --

JUDGE KELBER: 995?

MR. REPKA: Right. So, it would be subcritical with all those assumptions.

JUDGE KELBER: So, the boron, then, is holding down something on the order of four-and-a-half to five percent?

MR. REPKA: Right, although we can say -- I note that it's less than .95 for the other assumptions. I don't know how much less than .95.

JUDGE COLE: So, your worst case scenario would result in .995?

MR. REPKA: If you assume no boron in the pool.

JUDGE COLE: Right. And no credit for boraflex?

MR. REPKA: No credit for boraflex, no credit for boral in that region, new fuel going -- being misloaded into the most reactive position. And, again, there's no reason to assume the boron is going anywhere.

JUDGE KELBER: Okay. Are we ready to hear from

the staff?

CHAIRMAN BECHHOEFER: Yeah.

MR. WEISMAN: Ready? I guess the staff has a couple of things --

JUDGE COLE: Could you speak up a little bit, sir?

MR. WEISMAN: The staff has a couple of things to say. The first is that the standard in Vermont Yankee sets forth what the petitioner has to do for -- to set out a contention that says when a postulated accident scenario forms the basis of a contention, a causative mechanism for the accident must be described and some credible basis for it must be provided. As stated in our brief, what the petitioner has failed to do is give us a causative mechanism for this scenario and, therefore, the contention lacks a basis.

I think the second point I would like to make is the petitioners cite to some events at Oyster Creek, but that's not mentioned in the supplement. That's a late filed basis. I would point out that at least two of the events that are mentioned in the supplement have to do with fuel assemblies being placed in the reactor -- we mention this in our response to the supplement -- and they're misorientations. They don't indicate that fuel assemblies were placed in the wrong position, but that they were rotated in the correct position. We don't -- in the

reactor, and not in the spent fuel pool. When they're citing to Oyster Creek, we don't know, is this in the reactor, is it in the spent fuel pool? It shows the wisdom of the Commission's regulations in 2.714, that you have to specify the basis in your supplement. So, this late filed -- this late basis regarding Oyster Creek does not represent a good basis for this contention either.

And Dr. Cole even asked a question about if -- regarding whether the surveillance could be reasserted into the tech specs -- or whether it could be maintained rather, and I think that the question would be, does that surveillance meet any of the criteria in 5036(c)(2)(ii), the last two being Roman -- little ii. If it meets those criteria, then that would be necessary for an LCO. But, in this case, there isn't any showing that -- that's what the Board would have to determine to require that surveillance to stay in the tech specs.

CHAIRMAN BECHHOEFER: What's the number you cited again?

MR. WEISMAN: It's 5036(c)(2)(ii). You will see there are four criteria listed there. In order to -- so for the Board to require that that tech spec stay in the tech specs, there would have to be some finding that it satisfied one of those criteria.

JUDGE KELBER: It's a little "c?"

MR. WEISMAN: Right. It is -- I'm not sure -- it's 5036(c)(2) -- two, the title in two is limiting conditions for operation.

JUDGE KELBER: Okay.

MR. WEISMAN: And then the little ii -- and there are four criteria: 2(a), 2(b) --

JUDGE KELBER: Oh, yes; okay.

MR. WEISMAN: -- 2(c), and 2(d).

JUDGE KELBER: And you're looking to the criteria, which says "a process variable design feature operating restriction?"

MR. WEISMAN: Well, I think I was -- I just meant to point out to the Board that just because it's a low cost surveillance is not -- that's not -- the regulations don't require it for that reason.

JUDGE COLE: It just seems to me --

MR. WEISMAN: There wouldn't have to --

JUDGE COLE: -- to be a logical way for a problem to go away.

MR. WEISMAN: The point is that it's not a problem. So, it doesn't meet any of those criteria. It's not a problem. It's not required to be in tech specs.

MR. REPKA: I will add that in the context of tech spec improvement, there has been a lot of emphasis on removing --

JUDGE KELBER: Yeah.

MR. REPKA: -- operational administrative surveillance.

JUDGE COLE: But, you indicated that you would probably continue to maintain surveillance over boron concentration, even though you're not required to do that.

MR. REPKA: It's my understanding that that surveillance is a routine chemistry surveillance; that's correct.

JUDGE COLE: And how often do you do that now?

MR. REPKA: I think I said before it's on the order of 72 hours. I have to verify that, but about at least that.

JUDGE COLE: It's your representation that there's probably no reason why they wouldn't continue that?

MR. REPKA: None that I know of.

JUDGE COLE: Except that there is no absolute requirement that you do continue that?

MR. REPKA: It just wouldn't be in tech specs, which is not to say it won't be in an operating procedure or surveillance procedure.

JUDGE KELBER: Go on to contention six.

MS. BURTON: May I have a moment for a few comments here? We don't accept a representation that if surveillance, which is not required, will necessarily be

undertaken according to a regular schedule. We are, also, aware that this applicant is about to go through a process of divesting itself with these plants and there may be a new owner, which, if it's not bound by a requirement, can't be expected necessarily to do something.

I want to point out that the technical -- present technical specifications require that soluble boron be maintained at that particular concentration all the time. I believe that the submission by the applicant suggests that that technical specification somehow may be violated, if, in fact, it has to surveill the level of boron at any time, and it has not submitted scenarios that would support how boron comes in or comes out of the pool and out of the solution.

I'll, also, point out that the -- although there is a requested requirement for surveillance during fuel movements, I'm not aware that there is any requirement for the surveillance that would determine whether or not the assemblies have been properly placed. And, therefore, it is somewhat nonsensical to permit this very irregular -- not irregular, but very infrequent surveillance without, also, monitoring the placement of the fuel rods, particularly where there seems to be a history in the industry of misplacement, and that certainly reduces -- increases the risk of -- criticality reduces the margin.

We do not accept the applicant's worse case

assessment, which it presented a few moments ago, because its worse case assessment is based on only a one -- a single mispositioned assembly, and we do not accept that that is a worse case. And, certainly, the history of the industry does support that there is, as I've said, a likelihood of a misplacement of more than one fuel assembly, further reducing the margin, further increasing the risk of criticality.

It appears, again, that this component of the application is presented to cut costs and there is a comment to reduction in safety protection for the public. We find this unacceptable. And -- excuse me -- also, I want to point out that it has been pointed out that in our filings, we have made reference to misoriented fuel assemblies in the reactor. But, what we need to point out about that is that the standards are very much different in the reactor than they are in the spent fuel pool. The standards are more stricter and more -- much more precise. And, therefore, I think that we can assume that if the strict standards are not complied with, there is diminished expectation that diminished -- lesser standards will be complied with in the spent fuel pool.

And I would, also, like to point out, the footnote, which appears, continued on page 19, has a reference to a licensed event report at the Tennessee Valley

Authority. I'd like to point out that that involved two incidents going on at the same time of misoriented fuel assemblies in the reactor.

CHAIRMAN BECHHOEFER: Ms. Burton, if I understand your contention, you would think, as an alternative, they might provide a surveillance requirement to check for misloaded fuels at the determination of fuel movement; is that correct?

MS. BURTON: That would seem to be logical and necessary.

CHAIRMAN BECHHOEFER: Yeah, I'd like to have some comments on that, which is an alternative. Mr. Repka?

MR. REPKA: I'm sorry, I missed your question.

CHAIRMAN BECHHOEFER: I was saying, their proposed contention five, at the end of it, suggests that an alternative to the surveillance that they request would be a check -- a surveillance to check for misloaded fuel assemblies at the determination of fuel movements, and I'd like to get your comments on that. That's from page 18 and 19. What I'm quoting from is on page 19 of the supplement.

MR. REPKA: Well, first, the procedures related to moving fuel do require verifying the fuel movements and the locations of the movement. So, that's already in the procedures, which are adopted pursuant to 10 CFR 74.31, which are -- which require surveillance requirements related

to special nuclear material inventory. So, there are those procedures in place.

Second, I think that there's a lot of talk about a history in the nuclear industry of misloading and misplacing. I don't think the cases cited really establish that that's a true statement. I mean, when you -- two of the three cases are -- involve the reactor vessel and the only case involving a spent fuel facility is not really a misloading case, it's a case of a fuel assembly being left on the hoist, hanging slightly above its location. There isn't really a basis for that assertion that there's a history in the nuclear industry of misplacing fuel.

The third thing is this speculation that somehow a future owner of these facilities might not stand by the same requirements. I mean, that's completely speculative and I think inappropriate here.

And the fourth thing is, as we've already talked, the criticality analysis already assumes a misplaced, misloaded assembly and subcriticality is maintained. So, if you assume the very event that is being talked about, that's been specifically analyzed and addressed.

CHAIRMAN BECHHOEFER: But, you're specifically stating that there is a requirement for checking misloaded fuel assemblies at the conclusion of a movement?

MR. REPKA: There are operating procedures that

require verification of the fuel movement in the location.

CHAIRMAN BECHHOEFER: Well, but do they have the status of a tech spec, for instance?

MR. REPKA: No, it's an operating procedure. It does not, but --

CHAIRMAN BECHHOEFER: These things you can change at will, could you not?

MR. REPKA: "Will" would probably not be the right term. Operating procedures are subject to control under 10 CFR 5059.

CHAIRMAN BECHHOEFER: Yeah, well, that's essentially subject to much later review, if at all. So --

MR. REPKA: As are many things at the power plant.

CHAIRMAN BECHHOEFER: Oh, I realize that. Is there any further -- Mr. Weisman, do you have any further --

MR. WEISMAN: I would just add, Your Honor, that the argument that -- it's an fortiori argument, that the controls and the reactor are stricter than those in the spent fuel pool and, therefore, an error in loading in the reactor shows that there could be errors in loading in the spent fuel. That is not a good argument, because the events that are cited in the supplement have to do with rotation of a fuel assembly in the proper location and it's a far cry

from saying that a fuel assembly was loaded into an incorrect location. So, that is just simply not a good argument.

And I would, also --

CHAIRMAN BECHHOEFER: Well, is that not more or less an evidentiary matter, rather than --

MR. WEISMAN: Pardon me?

CHAIRMAN BECHHOEFER: Is that not an evidentiary matter, rather than a basis?

MR. WEISMAN: Well -- but the basis -- the basis has to be a good factual basis. I mean, the basis -- if the basis is incorrect, you don't have to accept it at face value, as we spoke this morning. So, that's not a merits issue. It's not an evidentiary matter.

MS. BURTON: May I just add one point? Sorry?

CHAIRMAN BECHHOEFER: Well, I had one further question. Mr. Weisman?

MR. WEISMAN: Yes.

CHAIRMAN BECHHOEFER: What about the statement that there should be a surveillance requirement to check for misloaded fuel assemblies at the determination of fuel movement? Now, we've heard that there's going to be an operational requirement. Does that assume the same status, in the eyes of the staff, as a tech spec?

MR. WEISMAN: The operational requirement is not

the same as a tech spec. As I stated earlier, the -- this kind of surveillance requirement would have to meet one of the criteria in 5036(c)(2)(ii), in order to be included, and we don't think that it does. However, the licensee has proposed procedures to comply with -- I believe with 7231, for control, and the staff has probably -- I have not seen any safety evaluation on that; but to the extent that they submitted that to us, it's going to be in their FSAR and it will be controlled by 5059. So, it is a different method of control, but it's not the same status as a tech spec.

CHAIRMAN BECHHOEFER: When this was being proposed as a substitute for an existing tech spec, which is being removed, does not that at least create an issue? That's what I'm trying to say. It's not saying who is right or wrong --

MR. WEISMAN: If there were a good contention in the first place, that might be an appropriate remedy for the petitioners to request. But, since there isn't any basis for the tech spec to begin with, we never get to the question of the relief. I --

CHAIRMAN BECHHOEFER: Well, the basis for the tech spec is it's there now. Isn't it an adequate basis for the tech spec --

JUDGE KELBER: Wait a minute, I didn't quite understand that last sentence.

MR. WEISMAN: All right. If I might, let me try and explain. When I first addressed contention five, I quoted from Vermont Yankee, to say there has to be some causative mechanism.

CHAIRMAN BECHHOEFER: Yes.

MR. WEISMAN: Petitioners haven't given us a causative mechanism to show that this is a good contention. The request that there be a surveillance would -- might be an appropriate ending for a good contention. But, we don't have a good contention. We don't have the causative mechanism in the first place to ever get there.

JUDGE KELBER: As I understand it, and Ms. Burton will correct me, I'm sure, if I'm wrong, but they're saying that the frequency of misloaded errors, regardless of whether they're right about the frequency, that's a different matter, but the frequency of misloaded errors leads them to think that there might be two such sequence and if the boron then were not in the proper amount, you would have a criticality accident. Now, is that a causative mechanism?

MR. WEISMAN: Let me address the second part, and that is the boron in the pool. We know that there is going to be boron in the pool during the loading, but the contention doesn't say, in any way, how the boron concentration would go down. That's the simple answer. So,

there's no causative mechanism for lowering the concentration of the boron in the pool.

JUDGE KELBER: Thank you, very much.

MS. BURTON: Pardon me, may I make two brief comments?

CHAIRMAN BECHHOEFER: Sure.

MS. BURTON: Just simply in support of the -- of something that was previously said by one of the panel members, and that is that in response to the question about the -- about causation, that is in -- we provided a basis for that in the existing technical specification and that does suffice.

Also, my second point is that I believe it's been conceded by the staff that is considering implementing a requirement that would require the surveillance check after loading of the fuel assemblies and that that would be set forth in the safety evaluation report. That would seem to suggest that it wouldn't be necessary -- the staff wouldn't deem it to be necessary, unless at the same time it accepted that there was merit to our contention being presented.

MR. WEISMAN: Perhaps I misspoke or perhaps Ms. Burton misunderstood me. What I intended to say was that this surveillance requirement does not meet the criteria in 5036(c)(2)(ii) and, therefore, does not need to be in tech specs. So, the staff is not considering putting it into the

tech specs.

CHAIRMAN BECHHOEFER: I see.

MS. BURTON: I think the point is that what we're addressing are the current technical specifications, not the proposed.

MR. REPKA: I have an observation that I find is a little troubling, because I think, in a sense, it's already there in tech specs. If you have a tech spec that says you have three regions and they are subject to certain restrictions and limitations on burn up and decay time and all of that, it's there. I mean, the requirement is there that that fuel be where it is supposed to be. It's within tech specs. Now, whether the company goes back and verifies that once, twice, or five times, it's already in tech specs and the thing that we have to meet is already there. If we fail to do that, we fail to meet the tech spec.

MR. WEISMAN: The staff would -- Your Honor, the staff would agree that there is a surveillance requirement to verify that a fuel assembly will be loaded into the correct location. That's prior to the fuel movement. What there is not --

CHAIRMAN BECHHOEFER: Prior or after?

MR. WEISMAN: Prior -- prior to the fuel movement, and that's 4 -- I have it written down here -- it's 4.9.13.1. That's where those tech specs are. What we are

saying is that there does not need to be a second surveillance after the fuel movements are complete. That does not need to be in tech specs. Now, certainly, we've heard from the licensee that there is, in fact, an administrative procedure afterwards to verify, but it's not required by tech specs.

MR. REPKA: There are administrative procedures that control movement of fuel and everything, of course, is subject to stop, think, act, review procedures and procedures of that nature. So, you know, the fact that there's no tech spec that says now that you've moved it and you've followed your procedures, you need to go back and you have one more time to meet this tech spec, surveill that it's in the right location, there is not that and I would agree with the staff, there is not need for that.

MS. BURTON: May we offer a brief point of clarification by David Lochbaum, my expert to the right?

CHAIRMAN BECHHOEFER: Yes.

MS. BURTON: Thank you.

MR. LOCHBAUM: Thank you, very much. There is some discussion of causation and I worked on this contention and I can tell you what was going through my mind, as point of clarification. We didn't provide a real explicit causation, because the existing technical specification required the applicant to check the boron concentration

periodically. We'll accept 72 hours, whatever it is, but periodically while they move the fuel, they have to go out and check boron concentration at all times. They wanted to retain that in the new one only when they're moving fuel. We didn't provide causation, because whatever provided the basis for this periodic check is the causation. We didn't develop it, we just questioned it. Whatever mechanism that the staff, when they approve that tech spec, and the applicant, when they proposed it, that could cause the boron concentration to drop within that period, since it needs to be checked periodically, is the issue we're raising.

CHAIRMAN BECHHOEFER: Thank you. Anything else on five?

MS. BURTON: We do have one comment, if I may?

CHAIRMAN BECHHOEFER: Yes.

MS. BURTON: And that is that we gave only two illustrations of mishandling fuel assemblies, but what we would further say on that is that that would be a matter that would be subject to discovery in the hearing process and we would certainly endeavor to compile a complete record and history of mishandling of the fuel assemblies.

CHAIRMAN BECHHOEFER: Okay. Let's go on to six.

MR. WEISMAN: If I may, Your Honor, just one brief comment?

CHAIRMAN BECHHOEFER: Oh, I'm sorry.

MR. WEISMAN: I just wanted to remind the Board of something that Mr. Repka had mentioned before, which is the reason why that boron concentration was there in the first place and that had to do with the possibility of boraflex not being effective, and that's the whole reason for amendment 158, which was issued in response to the application that's dated November 11, 1997 and the amendment was issued April 9, 1998. So, these kinds of amendments are really only intended to be a temporary kind of fix, until the licensee comes up with a more permanent way of dealing with the problem of boraflex, which the staff identified in their generic letter. And that's really all I have to say.

JUDGE COLE: And the problem of boraflex was resolved by the use of boral or some other means?

MR. WEISMAN: In that amendment, it was resolved by raising the boron to require boron concentration in the spent fuel pool water temporarily. In here, in this amendment, the new racks will indeed have boral and that's how they will solve that problem.

CHAIRMAN BECHHOEFER: Let's move on to six, then, I guess.

MS. BURTON: Contention six: proposed criticality control measures would violate NRC regulations. The criticality control measures proposed by the applicant would violate criterion 62 of the general design criteria GDC set

forth in Part 50, Appendix A. GDC 62 requires that, "criticality in the fuel storage in handling system shall be presented by physical systems or processes, preferably by use of geometrically safe configurations." In violation of this requirement, the applicant proposes to seek to prevent criticality at Millstone Unit 3 by the use of ongoing administrative measure. Our basis for the contention is GDC 62 is the sole regulatory foundation for criticality control in fuel pools.

The NRC staff has employed other documents in its consideration of criticality, but these documents are not regulations. For example, the NRC has repeatedly referred to the draft component of proposed revision two to the regulatory guide 1.13, dated December 1981, titled "Spent Fuel Storage Facility Design Basis." That document, in addition to being a draft, is not a regulation. The NRC staff has, on various occasions, allowed nuclear power plant licensees to rely upon administrative measures for criticality control, as the applicant proposes in this application. Such reliance violates GDC 62 and, therefore, violates NRC regulations.

The applicant proposes to rely upon the following administrative measures for criticality control at Millstone Unit 3: (1) maintenance of a given content of soluble boron in the pool; (2) limits on fuel enrichment and fuel burn up

in Region 1, four out of four racks, and Region 2 racks; and (3) limits on fuel enrichment, fuel burn up or fuel decay time in Region 3 racks. GDC 62 requires reliance on physical systems or processes, rather than administrative measures, under both normal conditions and accident conditions. For practical application of GDC 62, a credible range of accident conditions must be defined. The NRC has not formally provided such a definition.

A potentially useful definition of credible accident conditions is provided by implication through the draft regulatory guide 1.13, cited above. Paragraph 1.4 of Appendix A of draft regulatory guide 1.13 states, "At all locations in the LWR spent fuel storage facility, where spent fuel is handled or stored, the nuclear criticality safety analysis should demonstrate that criticality could not occur without at least two unlikely independent and concurrent failures for operator violations." This statement could be interpreted as saying that the set of noncredible accident scenarios for the purposes of criticality control encompasses scenarios involving at least two unlikely independent and concurrent failures or violations. All other accident scenarios would then be regarded as credible.

Experience at U.S. nuclear power plants shows that failure of administrative measures that seek to limit fuel

enrichment, fuel burn up, or fuel decay time is a likely occurrence. Moreover, it is likely that these administrative measures would fail in such a manner that more than one fuel assembly out of compliance would specify limits. Also, failure of administrative measures that seek to limit fuel enrichment, fuel burn up, or fuel decay time can proceed or follow, rather than being confronted with failure of administrative measures that seek to maintain a given content soluble boron in pool water. As a result, if the Millstone Unit 3 fuel pool were to operate as proposed in this application, a variety of accident scenarios of other criticality could occur and are credible according to the definition of criticality, which is implied by paragraph 1.4 of Appendix A of draft regulatory guide 1.13; thus, GDC 62 would be violated under accident conditions.

To this I wish to add a few points. First, I will call to the Board's attention to the recent decision in the matter of Carolina Power and Light Company, docket number 50-400-LA; that's the Sharon Harris. And in that matter, which, also, involves licensing of a spent fuel pool facility, one of the technical contentions presented, which is substantially the same as the -- as our contention six, has been accepted by the Board and paneled in that matter by memorandum and order, dated July 12, 1999.

JUDGE COLE: Do you have a reference more specific

than that, because I have that decision with me?

MS. BURTON: This would be page 17.

JUDGE COLE: Contention TC-2?

MS. BURTON: Yes; correct.

JUDGE COLE: Okay.

[Pause.]

JUDGE KELBER: Why don't you go on.

MS. BURTON: Yes. I wanted, also, to say that we are aware that a historical analysis of GDC 62 reveals that administrative measure were excluded by the NRC and that was with the -- with industry support. We are prepared at hearing to present a complete historical analysis that will show that GDC renders -- GDC 62 renders much of what has been allowed at nuclear reactors in their spent fuel pools since the 1980s; and more particularly what we assert in this proceeding is that credits for administrative measures, including aging, burn up, and the boron issues, do qualify as administrative measures, which are not deemed to qualify under GDC 62 for criticality protection.

Thank you.

CHAIRMAN BECHHOEFER: Mr. Repka?

MR. REPKA: Judge Bechhoefer, this contention asserts that -- it's very simple, that the proposal doesn't comply with GDC 62. GDC 62 specifically requires that "criticality in the fuel storage and handling system shall

be prevented by physical systems or processes, preferably by use of geometrically safe configurations." And then as we've cited in our papers, the NRC Appeal Board has previously held that GDCs are engineering goals, rather than precise tests or methodologies, by which reactor safety can be fully or satisfactorily gauged; that more specific acceptance criteria would be developed in NRC staff documents, such as reg guides, standard review plans, branch technical positions, and the type.

Be that as it may, if you look at the words of GDC 62, it's really very simple. Criticality is prevented by physical systems or processes, preferably geometrically safe configurations. The current racks at Millstone Unit 2 use racks in geometrically safe configurations, in conjunction with other physical means, such as -- such as boraflex, boron in the water, and fuel burn up and enrichment restrictions, which is indeed a physical process. The proposal would, also, use physical -- geometrically safe configurations in the racks, including in appropriate places boral, cell blockers, spacing of course throughout the racks; physical components, such as boral, boron; and physical processes, such as burn up and enrichment limits.

There is simply no change in this regard, in regard to the things GDC 62 looks for, as between the current racks and the proposed racks, and we find the

contention to be without basis. I recognize that a similar contention on the narrow legal issue of compliance with GDC 62 was admitted in the Sharon Harris case by the licensing board. I believe that's non-binding precedent and I believe that given the simple words of GDC 62, that there really is no basis for a legal contention asserting noncompliance with GDC 62.

With respect to a second basis admitted at Sharon Harris, the Board seemed to rely, to some degree, upon the fact -- in fact, the only real basis offered was that the staff had an outstanding request for additional information on the fuel misplacement event, which, as we've discussed earlier today, has been analyzed for Millstone. There is no request for additional information outstanding. And in addition, there is very strong precedent in a recent decision involving the Duke Energy at Conee facility, dated April 15, 1999, that suggests that a request for additional information, which we don't have here, can't really be a basis for a contention without some independent analysis or independent basis.

So having said all that, I think that the decision in Sharon Harris is non-binding here and there's no basis for the conclusion that the proposal doesn't comply with GDC 62.

MR. WEISMAN: I would second what the licensee has

said about -- regarding that you have to look at the whole application and all the measures that are employed to control criticality, including spacing and the separation requirements, so that there are certainly physical means used to prevent criticality proposed in this amendment.

Second, the petitioners state that GDC 62 is the sole regulatory foundation for criticality control in spent fuel pools, but the ignore 5068, which, also, applies to criticality control in spent fuel pools and 5068 explicitly allows for administrative controls. GDC 62 does not necessarily require only physical means; and, indeed, there has to be some administrative controls employed, in order to control the movement of the fuel. The fuel has to be moved in and out of the reactor, in and out of the spent fuel pool.

Finally, in Sharon Harris, I would offer that Sharon Harris is distinguishable from this amendment, because in Sharon Harris, they are dealing with new unused pools, new requirements. They have two pools that have not previously been used and had no requirements applicable to them and are now being placed -- the Sharon Harris wish is to place them into service, and that's a different situation than we have here. And second, my understanding is from the staff that Sharon Harris did not rely on administrative controls.

Finally, I would say that, as Mr. Repka said, Sharon Harris, the licensing board's decision there is not precedent. If the petitioners are trying to make a collateral estoppel argument, they haven't laid out the factors that are necessary for collateral estoppel and I would think that --

CHAIRMAN BECHHOEFER: I don't think they're trying to do that.

MR. WEISMAN: It wouldn't apply here.

CHAIRMAN BECHHOEFER: But, I don't think they're even trying to do that.

MR. WEISMAN: Okay.

CHAIRMAN BECHHOEFER: I think they're just trying to use it as an example of how this type of contention was admitted.

MR. WEISMAN: Well, that's fine.

JUDGE KELBER: Are you done now?

MR. WEISMAN: I am done; thank you.

JUDGE KELBER: I am somewhat puzzled by your very strict interpretation of GDC 62, because I can easily design a fuel element surrounded by boral on all sides that is critical all by itself; with or without water, I can do that. I have to know the enrichment. I don't -- if you don't put any limits on the enrichment or that composition, I assure you I can design such a fuel level. So, I think

you have to have at least one administrative control and that is enrichment. And, in fact, you have to know the burn up. There are designs, in which, in fact, the uranium will be placed by substantial portions of plutonium. That affects it, as well. So, I don't really understand the strict construction that you have placed on GDC 62.

MS. BURTON: May it please the Chairman, I would like to, at this time, refer a clarification to Dr. Thompson. It would be helpful.

JUDGE KELBER: Okay.

DR. THOMPSON: We'd say that there are two classes of administrative measures: those that are made over a finite time and after having been made are no longer necessary; and in the second class, administrative measures that are required on an ongoing basis. The design and construction of a rack with fixed spacing between fuel assemblies requires actions of an administrative type to perform correctly. Once the rack is installed, no further ongoing administrative action of any kind is required to exploit the physical phenomena of separation of fuel assemblies. Similarly, the placement of boral plates around the cells in the rack requires administrative and quality control measures, up to the point when the rack is completed and installed. No further ongoing action is required.

In distinction to this category of administrative

actions are those that are required on an ongoing basis. Taking credit for burn up and enrichment, the soluble boron and for decay time, all require ongoing administrative measures. Our research of the development of GDC 62 under the Atomic Energy Commission shows that -- very clearly that in the early versions of this criterion, there was a possibility for ongoing administrative actions and that this possibility was removed as the criterion involved and came to its present form. During that period of evolution of the criterion, there was extensive comment from the nuclear industry, from the advisory committee on reactor, and from the staff of the Atomic Energy Commission. All of them accepted the evolution of this criterion into its present form, which excludes administrative measures or an ongoing type.

JUDGE KELBER: Where does fuel enrichment come in this? What type of administrative control is that? Is it one type when the rack is designed and another type when the --

DR. THOMPSON: The enrichment is something that's required to be maintained on an ongoing basis, that's correct, because the assemblies -

JUDGE KELBER: But, isn't it not --

DR. THOMPSON: -- the assemblies come in and out of the -- come into the plant and out of the reactor.

JUDGE KELBER: But when I design the rack, I can ignore enrichment, is that what you're telling me?

DR. THOMPSON: No, not at all.

JUDGE KELBER: I see.

DR. THOMPSON: The enrichment is something that's fixed at the fuel enrichment facility and every plant has as one of the key technical specifications, a limit on the enrichment of fuel that comes into the plant.

JUDGE KELBER: But that can change from time to time with the plant. Let's talk about the fuel racks, themselves. I design a fuel rack. I design it to accommodate fuel of a certain enrichment -- maximum enrichment, perhaps. By enrichment, I mean the amount of fissile isotopes in the fuel. Now, when I design it, that's one type of administrative control. Are you telling me now that that changes to a different type of administrative control after the rack is built?

DR. THOMPSON: The design of the rack will be predicated upon the assumption of some upper level of enrichment of fuel that might be asserted into that rack. The -- to ensure that fuel never enters this licensed facility with an enrichment level above this level that was specified in the rack design does require ongoing administrative actions. These are quite different in nature from the types of administrative actions that are needed to

keep track of the burn up, enrichment combination that is used to take credit for burn up.

JUDGE KELBER: Why are they different?

DR. THOMPSON: Because the -- enrichment is a parameter that is specified for fuel assembly -- the maximum enrichment is specified at the time of manufacture of the fuel or more specifically, at the time of enrichment of the uranium that goes into making the fuel. And that is -- the maximum enrichment entering the plant is in this category of one time actions, although it's not one time in quite the same sense, because it's one time in the life of the assembly. Each assembly has a maximum enrichment at one point in its life, which is set at the time of manufacture. The specifications of the rack are, also, set one time, at the time of its manufacture, but each rack over its life history will have a number of assemblies coming into and out of it.

JUDGE KELBER: Now, if I have fuel elements loaded into -- into one of the new high power density lattices, there are locations where, in fact, the conversion ratio may be very close to one or even slightly higher and, in which case, for every U235 that's burned up, may make at least -- may make close to one plutonium 239. And unless times have changed greatly, the plutonium 239 is worth somewhat more in reactivity than the 235 that it's replacing. So, in fact,

the reactivity worth of that element would -- in the rack, would be somewhat greater -- that unless your claim is that that's not important.

DR. THOMPSON: That's something that you would take account of with a factor of safety in the rack design.

JUDGE KELBER: I see. In the rack --

DR. THOMPSON: Again, as a one-time action.

JUDGE KELBER: You're saying that in the rack design, we should allow credit for burn up?

DR. THOMPSON: No, I'm talking about one time actions, as opposed to ongoing actions.

JUDGE KELBER: I'm finding it very difficult to understand how --

DR. THOMPSON: The point you mentioned is a point that would be taken into account, at the time of rack design. If there is a condition, in which plutonium in growth gives you higher reactivity than a fresh assembly, then you would simply account for that, as a factor in rack design, as a one-time action.

JUDGE KELBER: Well, certainly, it must make a difference where you put that element.

DR. THOMPSON: The -- I would argue that a correct and literal reading of GDC 62 would require the racks to be so designed that the most reactive possible assembly that met the overall -- met the heat tech specs for this reactor,

including its core configuration and its incoming enrichment, that that most reactive assembly or a rack full of such assemblies should be subcritical --

JUDGE KELBER: Okay.

DR. THOMPSON: -- without boron or any other ongoing administrative --

JUDGE KELBER: Okay, I understand what you mean now.

MR. REPKA: May I respond to that briefly?

JUDGE KELBER: Please do.

MR. REPKA: I find that argument to be an amazingly semantic argument. It doesn't really have much support in the language of the GDC, which, again, the GDC is not intended as a precise requirement. It's intended as a goal. But, the GDC speaks to physical systems or processes --

CHAIRMAN BECHHOEFER: Mr. Repka, the GDC 62 was subject to notice and comment was it not?

MR. REPKA: It certainly was, to establish an engineering goal, rather than a specific set of acceptance criteria. But my point is that GDC 62 speaks to physical systems or processes. It doesn't mention administrative controls, either up or down. It doesn't say anything about one time actions versus ongoing administrative measures one way or the other. The fact of the matter is the petitioners

are taking a discrete set of components of this application and calling them administrative measures. They could call the apples or bananas just as well and saying that the GDC doesn't allow for apples or bananas, and that's simply -- that's simply word games. It's semantics.

In reality, rack configurations, boraflex, boron, they're all physical systems. Spacing is a physical system. Burn up is a physical process. Enrichment limits are physical. Those are all things that are certainly contemplated by the GDC and to label them as administrative controls and say that they're not contemplated, I think, is simply wrong.

MR. WEISMAN: We would just simply add that there's no basis in GDC 62 or in 5068 to make the distinction between the two kinds of administrative controls, as the petitioners seek to do.

MR. REPKA: I would further add, with your indulgence, there was a reference to history related to the AEC and what they intended. But the fact of the matter is that there has been an awful lot of NRC precedent long since the AEC came and went, with respect to wet storage rack designs, and I'm not just talking about staff precedent, I'm talking about agency precedent, as to how it addresses what storage facilities and, you know, what -- any inference that can be drawn from what the AEC thought about GDC 62 and, you

know, in the 1960s, is really irrelevant, in light of all the precedent and the agency practice and the engineering work that has been done since.

MS. BURTON: May I respond?

CHAIRMAN BECHHOEFER: Yes.

MS. BURTON: Of course agency practice does not the law make and I'd like to point out several further points. As a matter of law, it is our contention that GDC 62 is controlling as a legal matter, in terms of the pool design. That is one of our legal contentions here.

And responding to the NRC staff, which has cited Section 50.68, we dispute their interpretation. We do not believe that that section permits administrative controls and, furthermore, that section is concerned with monitoring, whereas GDC 62 is exclusively concerned with and sets the standard in the law for design of the pool components.

CHAIRMAN BECHHOEFER: Is there anything further on contention six? I might add that if we should admit contention six or some part of contention six, I think we would want further extended legal discussion, as the Board in Sharon Harris really was appropriate on the -- really how GDC 62 should be interpreted and whether the use of administrative limits on burn up and enrichment properly conforms to GDC 62. That, as a legal issue at least, seems to have some merit and some differences of opinion. And we

may well, if we should admit this contention, at least admit that legal aspect of it for further argument. So, we haven't finally decided yet, but it appears that the issue permitted in Sharon Harris may have some validity here, as well.

MR. REPKA: And Judge Bechhoefer, I would say in that scenario, that that's an issue that could precede prior to any discovery on that issue.

CHAIRMAN BECHHOEFER: Well, I won't say yes or no, but I will tend to agree with that. All right, go on to number seven now, I guess.

MS. HODGDON: Could we take a break before we move onto seven?

CHAIRMAN BECHHOEFER: Yes. That's what we were just discussing.

MS. HODGDON: All right.

CHAIRMAN BECHHOEFER: We were discussing whether people could wait for -- but, let's do it now.

MS. HODGDON: Yes; yes. Could we have -- well, do we have any idea of what time we're going to finish today?

JUDGE COLE: It depends on how fast you move along and I thought you'd finish seven very quickly and then we'd take a break.

MS. HODGDON: Well, I thought that because we were -- we were super critical here, that we may be finished with

criticality. But, before we move on to something else, we can take our break. It seems a reasonable, logical time to take the break. And besides that, it's the middle of the afternoon. It's almost 3:00.

CHAIRMAN BECHHOEFER: All right. Let's take 15 minutes; 10 after 3:00 we'll be back.

[Break.]

CHAIRMAN BECHHOEFER: Back on the record. I've been handed a few documents, which I consider as limited appearance statements, and I will send these to the secretary for docketing. One is from the Coalition of Neighborhoods for the Preservation of SAG or SAGE Harbor -- I'm not sure --

MS. BURTON: SAG Harbor.

CHAIRMAN BECHHOEFER: The other is from the Acrobonic Protection Committee and the third one is from the South Fork Groundwater Task Force. We will send these to the secretary and they will be entered into the record as limited appearance statements. They are not evidence, but they will be put into the record.

Okay, contention seven.

MS. BURTON: Yes, contention seven: significant increase in probability and consequences of overheating accidents. The application proposes to significantly increase both the irradiated fuel assembly inventory and the

associated decay heat levels in Millstone Unit 3 spent fuel pool. The decay heat mode increase has the inherent consequence of reducing the time available to respond to a loss of spent fuel pool cooling event. Reduced coping time correspondents to greater probability of failure to restore cooling in time to prevent overheating damage.

The inventory increase has the inherent consequence of increasing the amount of radioactive material, in other words source terms, in the spent fuel pool. Greater source term inventory corresponds to greater consequences in event of fuel damage, because more radioactive material is released.

Our basis is that the applicant proposes to more than double the amount of spent fuel stored in the Millstone Unit 3 spent fuel pool. Quoting from the application, "The pool presently contains 756 storage cells, which were installed during original plant construction. This license application addresses installation of 15 high density rack in the Millstone Point 3 pool. These 15 high density racks have a maximum capacity of 1,104 storage cells." The applicant concedes that the proposed activity will increase the decay heat load in the spent fuel pool. "With the expanded capacity, the spent fuel pool cooling system will be required to remove an increased heat load, while maintaining the pool water temperature within the design

limit."

If this proposed activity is implemented, there will be significantly less water available in the spent fuel pool. The 15 large storage racks and the 1,104 additional fuel assemblies will displace a considerable amount of water that would otherwise be in the pool. Higher heat loads with reduced water inventory inevitably means that there will be less time to cope with a loss of spent fuel cooling than is available at the present time.

The applicant has not demonstrated in its application that sufficient time remains, if the proposed activity is allowed. For example, the application states, "Piping penetrations are at least 11 feet above the top of the spent fuel, so that failure of inlets, outlets, or accident piping leaks cannot reduce the water below this level." Thus, the spent fuel pool at Millstone Unit 3 can be drained down to approximately 11 feet above the top of the irradiated fuel following a postulated design and licensing basis event. The spent fuel pool cooling system is disabled in that condition, so the spent fuel pool water will begin to heat up. The application states, "The bulk peak temperature of the spent fuel pool is limited to 200F of restructural qualification of the spent fuel pool." Therefore, the proposed activity significantly increases the probability that the spent fuel pool water temperature will

exceed the structural qualification temperature and, also, reach the boiling point.

That is contention seven.

CHAIRMAN BECHHOEFER: Ms. Burton, did you -- when you submitted this contention, had you reviewed the thermohydraulic analysis that the licensee refers to in footnote 13 of its response?

MS. BURTON: Yes, indeed.

CHAIRMAN BECHHOEFER: And how do you reconcile that?

MS. BURTON: I'd like to make a correction. We have had an opportunity to see the non-proprietary version, but not the proprietary thermohydraulic analysis.

CHAIRMAN BECHHOEFER: Mr. Repka?

MR. REPKA: Yes, Judge Bechhoefer. This contention fails for lack of specificity and a basis. It challenges the ability of the spent fuel pool cooling system to remove the extra decay heat and the allegation is that it's extra decay heat of the increased storage capacity. However, the contention never identifies any aspect of the spent fuel pool cooling system that is inadequate. It doesn't recognize it from a sizing and design and capacity perspective. The spent fuel pool cooling system has been licensed for heat loads of -- I think the current heat load it's licensed for is 2,160 assemblies. It's been that way

since amendment 60 in March 1991, so that it's already, from a cooling standpoint sized to address these kinds of heat loads.

There's no defect pointed out in the cooling system. There's the additional thermohydraulic analysis that's been submitted in connection with this and other licensed amendment applications. There's no specific challenge or no specific basis provided with respect to that analysis, to why is that analysis inadequate.

And with respect to the assertion that there would be reduced coping time, it's not clear as to what exactly that's referring to. But, in any event, there is substantial coping time with this -- given the spent fuel pool cooling system, as well as the ability to provide makeup to the spent fuel pool. None of that is even acknowledged. And so what the specific issue is, we can only speculate; what the basis for that is, we know there is none.

MS. HODGDON: I would point to one correction in the staff's brief. Apparently, in the last line on page 20, where it reads, "regarding the additional cause by the storage of additional fuel," that should say "heat load -- additional heat load." Somehow or other, that happens to have been omitted.

CHAIRMAN BECHHOEFER: Which page?

MS. HODGDON: Page 20, last line on the page. Aside from that, since the petitioners have not introduced anything new, we would -- in this contention, we would just stand on our brief, that they -- it totally lacks basis. They don't take any account of the fact that the design basis heat load is well beyond what's being proposed here. And it just -- there's just no basis for the disconnected statements that they offer regarding the consequences of loss of spent fuel cooling, because they don't have anything on how that's going to happen or -- well, that's all. We just stand on what we said in the brief and I won't add anything further. Thank you.

JUDGE COLE: Ms. Hodgdon, on page 20 of your brief, the last line on that page, are there some words missing there?

MS. HODGDON: Yeah, I just said that one should write "heat load" after the first word, "additional heat load." I'm sorry, can't you hear me? Additional heat load, yes.

JUDGE COLE: Okay.

MS. HODGDON: That's it.

JUDGE COLE: Sorry.

MS. BURTON: May I briefly reply?

CHAIRMAN BECHHOEFER: Yes.

MS. BURTON: The criticisms from both the

applicant and the staff are misplaced, in that they are assuming a fully operable system. And our contention is that with the spent fuel pool drained down to the extent set forth, the system will be inoperable, it will not work, and, therefore, there is -- there shouldn't be any requirement for an analysis, as is thought by both the applicant and the staff.

MR. REPKA: I'll respond briefly to that. I think there's a reference there in the basis, they're talking about draining down to 11 feet. I think that sentence is taken out of context. That 11 foot was intended as a -- in a different context, as there would be at least 11 feet above the top. In fact, in loss of some sort of pipe rupture related to the spent fuel pool, there would be more than -- much more than 11 feet above the fuel assemblies. But, in any event, there's no explanation here as to how that is going to cause a problem. Why would there be no makeup capability in the spent fuel pool? And there are numerous sources of makeup water to the spent fuel pool.

What type of accident is that going to cause? What problems are with the thermohydraulic analysis related to loss of spent fuel pool cooling? There's no indication at all as to what the scenario of concern is or what the basis is, in which to challenge the analysis of record.

MS. BURTON: Two points, if I may?

CHAIRMAN BECHHOEFER: Yeah.

MS. BURTON: I believe that the applicant has conceded that a seismic event could cause a rupture in the pipes that provide water, which could lead to the -- and would, necessarily, to the inoperability of the maintenance of the system. And I would, also, like to point out that I don't believe that the application adequately analyzes the loss time necessarily attributable to the decrease in water through displacement in the spent fuel pool. Necessarily, there will be a decrease in the response time to such an event. And although there may be makeup systems that would, in the alternative, provide for flow into the pool, I don't believe the application analyzes whether there is sufficient time to perform such makeup.

MR. REPKA: The spent fuel pool cooling system is seismically qualified. The analysis -- the thermohydraulic analysis for the pool does mechanistically take certain breaks that it's required to take under the reg guide, regardless of the fact that it is seismically qualified, and that's why you get the scenarios that are analyzed for loss of spent fuel pool cooling.

There are curves in the FSAR related to time after maximum temperatures reached and other such things that are simply not even mentioned or addressed; nor is there any indication that there's any change, as a result of the

amendment. So, you know, the fact that there is an analysis specifically postulating the loss of spent fuel pool cooling belies the concern in the contention.

CHAIRMAN BECHHOEFER: Well, I think the contention indicates that the greater -- more heat.

MR. REPKA: But, that contention, as we said right at the outset, lacks basis, because: (1) the current spent fuel pool analysis of record already assumes the heat load from 2,160 assemblies; and (2) there's a thermohydraulic analysis that's included as -- referenced as part of this application that specifically deals with the heat load that would be involved with this set of racks and it, also, includes the issue of the reduced water inventory. All of those are specifically addressed in the analysis. And, again, there is no direct challenge. It's simply an allegation. It is inadequate, it's not enough, but we don't know why; we don't know what the basis is for that. It's precisely the kind of contention that the Commission has spoken to in its rules and in its guidance, its statement of policy on licensing proceedings. It's a contention without a basis.

MS. BURTON: May I respond or am I out of turn?

CHAIRMAN BECHHOEFER: Well, Mr. Weisman, you are --

MR. WEISMAN: You assuaged my statement of

contention.

MS. HODGDON: I think I'll skip this round; if I may be allowed to speak next time maybe or --

JUDGE COLE: On the next contention or the --

MS. HODGDON: No, on a case-by-case basis. We've already addressed this point in our brief and so I -- we have nothing further to say on that, because the elaboration of this doesn't seem to me to be going anywhere.

CHAIRMAN BECHHOEFER: Okay.

MS. BURTON: Just briefly, we take issue with the statement of the applicant that the analysis adequately takes into consideration added heat loads with lowered water. We don't believe that the application includes an analysis for drain down due to seismic events and, therefore, they haven't been -- they have not been appropriately updated.

JUDGE COLE: Ms. Burton, so, you are theorizing that we get an above design basis seismic event to cause this situation?

MS. BURTON: On this point, may I defer, please, to Mr. Lochbaum?

JUDGE COLE: Sure.

MS. BURTON: Thank you.

MR. LOCHBAUM: Looking at page 5.3 of Attachment V, the applicant, in their submittal, stated --

JUDGE COLE: Let me see if I can get to that.

MR. LOCHBAUM: It's, also, on page -- we repeated it on page 23 of our contentions -- or filing. At the top of the page 23, the sentence I'm going to read is -- states, "Piping penetrations are at least 11 feet above the top of the spent fuel" --

JUDGE COLE: Right.

MR. LOCHBAUM: -- "so that" -- and I want to emphasize the following -- "failure of inlets, outlets, or accident piping leaks," end emphasis, "cannot reduce the water level below this level. It's not clear from our reading of this that they're referring to beyond seismic event, because they very carefully scolded us not to go beyond reactor -- severe accident reactor. So, I assume they're applying normal seismic events, normal failures, everything within the design analysis basis, when they make this statement.

MR. REPKA: What this statement is referring to is the non-mechanistic failures that the reg guide requires to be analyzed. And in that scenario, the piping penetrations are at least 11 feet above, so you're going to have at least 11 feet and, in fact, much more water above the spent fuel. It will remain covered with that water volume. The thermohydraulic analysis then goes on to address that. So, any other failure of the piping system would require beyond

-- or the spent fuel pool inventory would require a beyond design basis earthquake. In fact, this would require a beyond design basis earthquake.

JUDGE COLE: All right, sir. Anything further on that?

MS. HODGDON: No, we've already addressed that.

CHAIRMAN BECHHOEFER: Okay.

MS. HODGDON: I keep referring to our paper.

CHAIRMAN BECHHOEFER: Contention eight?

MS. BURTON: Shall we continue to contention eight?

CHAIRMAN BECHHOEFER: Sure.

MS. BURTON: Increased probability and consequences of severe accidents. The application proposes to modify the Millstone Unit 3 pool in a manner that would significantly increase the probability and offsite consequences of severe accidents, defined here as accidents which involve partial or total uncovering of fuel assemblies and exothermic reaction of fuel cladding. A severe accident could release to the environment an amount of long-lived radioactive material, especially cesium 137, which exceeds the release from the 1986 Chernobel reactor accident.

Our basis is as follows: installation of high density racks in fuel pools introduces the potential for exothermic reaction of fuel cladding, if fuel assemblies are

partially or totally uncovered. This potential does not exist with low density racks. The technical factors underlying this potential are described in the February 1999 report by petitioners' expert, Dr. Gordon Thompson, which appears here as Exhibit 1. Although the report focuses on the Sharon Harris plant, it, also, provides generic information, which applies to Millstone Unit 3.

Exiting conditions at Millstone Unit 3 provide baseline levels of probability and consequences of severe accidents. The actions proposed by the applicant will increase both the probability and the consequences. The probability of severe accidents will increase above the baseline level, because: (1) center, center distances in the fuel racks will decrease from the present 10.35 inches in the Region 3 racks to 9.017 inches in the new Region 2 rack; (2) convective circulation of water, air, or steam will be further suppressed by the presence of additional racks in the pool; and (3) the greater heat load and reduced water mass in the pool will reduce the time scale of an accident, in which interruption of cooling leads to evaporation of water and the uncovering of fuel assemblies.

A reduction in center, center distance will have the effect of increasing the number of fuel uncovery scenarios that will proceed to a point where exothermic reaction of fuel cladding is initiated. Thus, a reduction

in center, center distance will cause an increase in the probability of a severe accident. The same effect will arise from the installation of additional racks in the pool. In this instance, the effect will arise, because convective circulation of water, air, or steam would be further suppressed by the presence of additional racks in the pool. A greater heat load and reduced water mass in the pool will have the effect of increasing the number of accident scenarios, wherein water loss proceeds to a point where fuel is partially or totally uncovered. Thus, a greater heat load and reduced water mass will cause an increase in the probability of severe accidents. The offsite consequences of severe accidents will increase above the baseline level, because more long-lived radioactive material, especial cesium 137, will be present in the pool and available for release to the environment.

I'll save my further comments to respond to what I'm anticipating to hear from the applicant and the staff.

CHAIRMAN BECHHOEFER: Okay, Mr. Repka?

MR. REPKA: We have addressed this proposed contention I think fairly thoroughly in our papers, and I'm not sure there's a whole lot to add to that. But just to seal our objection, I think that there's two major points: one, this contention is, by its very terms, focused on the potential for reactions and consequences that would result

from the fuel assemblies and the pool being partially or totally uncovered. That very scenario, by its -- by definition, is beyond the design basis. It's -- there is no basis provided in the contention or elsewhere to assume or to -- that that event is more probable than it is presently. It's made more probable by the proposal and, in fact, the proposal does not change that in any way.

And then with respect to the assertion that the greater heat load and reduced water mass in the pool will have the result of increasing the number of accident scenarios, when water loss proceeds to the point where fuel is partially or totally uncovered, again, there's simply no basis for that. We've talked about the thermohydraulic analysis that's been submitted. It specifically contemplates the reduced water mass and the heat loads that are involved. And there's no showing as to how the probability of one of these severe beyond design basis accidents would be increased by the proposal. In fact, that -- the probability of those kinds of events really represents a generic issue that would apply to any high density wet storage facility anywhere in the country. It would apply to the current proposal. It would apply to the existing racks and really represents another generic challenge to the NRC's regulatory structure.

CHAIRMAN BECHHOEFER: Ms. Hodgdon?

MS. HODGDON: The staff would agree with all of those things. We've briefed this, also, and have set forth all the reasons that a contention like this should not be admitted. It is, of course, beyond design basis accident.

I would point to just one thing that I left out in talking about contention seven, and maybe it would help to answer one of the questions, and that is there's a super heading there on page 21 that says, "accidents potentially involving exothermic reaction of cladding," and seven is included there, too. So, it would seem that in some sense, seven is sort of a subset of eight, in that it, also, is some sort of an accident that doesn't have -- Mr. Weisman cited this case, and doesn't have an initiator. It doesn't start anywhere. All it has is increased consequences. And so -- but, we have already --

CHAIRMAN BECHHOEFER: Does that mean that if we admit seven, we have to admit eight?

MS. HODGDON: No. I thought that it might help, because neither of these accidents has any basis. It might help to understand that they are apparently proceeding backwards from the same consequences, but they never get to the cause of these accidents. Apparently, somebody suggested beyond design basis seismic, with regard to seven, it's not at all clear what is causing the accident in A. So -- but, in any event, it's quite clear that it's beyond

design basis and for all the reasons that we set forth in our response, the Board should not admit the contention.

CHAIRMAN BECHHOEFER: Ms. Burton?

MS. BURTON: I'll respond. We do vigorously dispute these arguments of both the staff and the applicant, because we do believe that severe accidents are within the design basis. And more than that, it is our position that a severe accident at the spent fuel pool is a virtually automatic end result of a severe accident in the reactor and almost certainly will lead to very terrible conditions. And, in fact, the emergency planning, under the Atomic Energy Act, is predicated on this event. Backfits have been required, based on analysis of this event. And, in fact, the individual plant examinations, the IPE, have identified the susceptibility -- or studied or asked the licensees to identify their susceptibility to severe accidents. Therefore --

JUDGE KELBER: I have to interrupt, but I don't believe that that statement is correct about the IPE, because severe accidents come under a level three PRA. The IPEs were not quite level one PRAs.

MS. BURTON: Well, I apologize, if I'm in error.

JUDGE KELBER: You're drawing conclusions, which simply cannot be drawn.

MS. BURTON: Well, I apologize, if I'm mistaken,

and I stand corrected. At this point, I stood corrected, but perhaps at this point, I would ask that Dr. Thompson be permitted to offer further clarification here.

JUDGE KELBER: I'm sorry to have interrupted you, but it was -- but, I don't want anybody to leave here with the impression that the IPEs are the same as the level three PRA. They simply are not.

MS. BURTON: May Dr. Thompson put in a brief word, at this point?

DR. THOMPSON: The IPEs are specifically required to address accidents that are beyond what used to be called the design basis, that is prior to the TMI accident, and it involves severe core damage. And some licensees choose to submit PRAs, in response to the requirement for IPEs. It is true that the IPE requirement is less demanding than that for a full PRA.

JUDGE KELBER: And severe accidents require an examination that go beyond the approach to core melt. The level one PRA and the IPE are designed to look at vulnerabilities in the plants that might be subject to either maintenance or backfit, to prevent core melt; but, they don't certainly go to the question of anything that threatens to go beyond the containment. That's a different type -- set of affairs altogether.

DR. THOMPSON: I will repeat that many licensees

choose to submit --

JUDGE KELBER: That's their choice.

DR. THOMPSON: Right.

MR. REPKA: And certainly nothing has been pointed to about the Millstone response -- Millstone Unit 3 response to the IPE. Nothing has been specified, nothing has been presented that show that that would be a basis for a Millstone specific contention. And then even more specifically, none of that is related to this particular proposal. There's no showing as to how that's impacted by this proposal. In fact, even if we're jumping -- there's a statement that a severe spent fuel pool accident is almost a certain result of a reactor accident, and I don't think there's any basis at all for Millstone Unit 3 to say that. Certainly, nothing has been presented from the IPE or elsewhere that would validate that point or provide an evidentiary basis for that point.

Some of the things referred to in the basis statement in the petition may go to the consequences of a postulated severe accident. But even there, there's been no showing to say that this particular proposal would alter the consequences of one of the severe accidents, given that the consequences are, to a large degree, driven by the most recent offloads. That would exist independent of this particular proposal. So, again, we just basically have a

contention without a basis.

MS. BURTON: May we offer a further point from Dr. Thompson on that issue?

MS. HODGDON: I'd like to speak.

MS. BURTON: Oh, I'm sorry.

CHAIRMAN BECHHOEFER: Ms. Hodgdon?

MS. HODGDON: I believe it might have been my turn. Without going to the further point, I wanted to address the two points. The reactor accident, changes are being proposed with regard to the operation of the reactor here, as I'm sure you're aware. I believe I heard Ms. Burton say that severe accidents are within the design basis. I would refer Ms. Burton to 50.2 of the Commission's regulations, regarding design basis, where it says design basis means that information, which identifies the specific functions to be performed by a structure system of components. So, the specific values or ranges of values chosen for controlling parameters is referenced to designs. I think that's enough. You can read it for yourself. In any event, clearly, severe accidents are not within the design basis.

Further, she said that backfits have been required. I'm not aware that any backfits have been required. With regard to the specific subject matter that seems to be debating, which petitioners are trying to bring

up here, the generic issue 82, that was investigated a long time ago, 1989. That investigated severe -- in the time frame, it was resolved on the regulatory basis by a document, NUREG 1353, which found that -- the question was: can we go to high density storage; is it -- should we require high density storage. And it was found to be a backfit and not a cost effective backfit. And as far as I'm aware, that NUREG is still considered -- is still followed by the Commission, although -- well, without more, that is the statement of affairs regarding that. This has been hashed over many times, but no contention on the subject matter, as far as I know, has ever been admitted. And this reactor accident with concurrent or consequence or whatever spent fuel pool accident, has been specifically rejected, as we point out in our brief.

That's all I had to say on those points that were raised previously.

MS. BURTON: In reply I'm -- I believe we're aware of at least two backfits that were required in reactors following the accident at Three Mile Island, including requirements for hydrogen control and containment, as well as that equipment be treated for high -- for -- to meet high radiation level situations. Also, I'd like to point out that this business of the nexus between a severe accident and a reactor leading to severe accident consequences in the

spent fuel pool is an issue, which has never been litigated and may present itself here, as a fresh issue for further consideration.

Also, I'd like to point out that in the scenario, all the severe reactor accident leading to a serious -- a severe accident in a spent fuel pool, certainly, the large radioactive release that would follow from a severe accident in the -- potentially in the containment would prevent operations -- as I was saying, the large radioactive releases, which are potential in a severe accident at the reactor necessarily would render operation of the spent fuel pool inoperable, because it is manually operated. It would not be possible for operators to have access to the fuel. And further, equipment at the spent fuel pool is not designed to withstand high radiation. So, therefore, we do believe that it is not remote, it is not speculative, and it necessarily follows that there would be severe accident consequences to the spent fuel pool from severe accidents in a reactor. And, again, I'll refer to the Brookhaven study, which appears earlier in our papers, page seven, with respect to consequences for an accident at a spent fuel pool, itself.

MS. HODGDON: Decommissioned plants, is that the one you're referring to?

MS. BURTON: Pardon me?

MS. HODGDON: Decommissioned plants, is that -- there are several Brookhaven reports.

MS. BURTON: It wouldn't matter if they were decommissioned or not. I think the same standard and analysis would hold, as well, for operating plants, if not more so.

JUDGE KELBER: Let me see if I can put a construction on this. You're saying that if there -- potentially what you've told us is that if there is a severe accident at a reactor, then there is a strong likelihood -- we won't quantify it, but there's a strong likelihood that maintenance of the fuel pool cooling would be, at best, difficult, probably impossible. Is that your -- is that basically what you've been telling us?

MS. BURTON: Essentially that's it, yes.

JUDGE KELBER: And so, you want us to consider the case, that because of the enlargement of the pool -- spent fuel pool, this would add significantly to the overall radioactive release burden?

MS. BURTON: I respectfully ask to defer on this point to Dr. Thompson.

DR. THOMPSON: Yes to that question. But, there's another point, namely, that it's not just a matter of the increased inventory of radioactivity in the pool after this application is approved; it's, also that the flow paths

would be more constricted in the event of a partial of, total water loss.

JUDGE KELBER: Excuse me, what --

DR. THOMPSON: The flow parts within the pool would be further constricted than at present, in the event of a partial or total water loss, thereby increasing the probability of a -- involving exothermic reaction of the cladding. So, it's both -- the application will have -- effect both the consequences on the probability of the severe pool accident, which could have a variety of initiating mechanisms, of which one is a severe reactor accident involving containment failure or bypass; to assert that a severe reactor accident involving containment failure or bypass will almost certainly lead to uncontrolled evaporation of the pool water and thereby to a severe pool accident.

JUDGE KELBER: Okay. I wanted to understand where you're coming from, thank you.

CHAIRMAN BECHHOEFER: Ms. Burton, did you, by any chance, analyze the -- sometime ago, there was an Appeal Board decision in Vermont Yankee, ALAB 919, and -- which projected what I would call a fairly well founded contention of this type, and it was reversed by the Appeal Board. Do you have any way of -- are you able to distinguish that?

MS. BURTON: My response there is, yes, I am. Our

response there is that yes, we are familiar with that decision. However, I'm not aware that the matter preceded further in the litigation -- the course of litigation and we respectfully differ.

CHAIRMAN BECHHOEFER: Okay. I don't think it did go any further.

MS. BURTON: And I do believe that the technical assertion that we're making in this contention has never been litigated in that case or in any other case to date.

CHAIRMAN BECHHOEFER: Anything further on contention eight?

MS. HODGDON: I'm not totally aware of what is being talked about here with regard to backfits, but if it was the after Three Mile Island things, which I think is what's talked about, that backfits are subject to the backfit rule, and I think those were not considered backfits under the definition of backfits. But, where it's required for -- where it's necessary to bring into compliance with the license and so forth, then there -- but, anyway, the backfit rule, I beleive -- I mean, I think the word "backfit" was used rather loosely there and so I would -- that was just a caveat. Even though it's rather far removed from what we're talking about here, I couldn't understand the basis anyway for anybody saying the plants -- in order to be backfit with anything that has anything whatsoever to

do with the subject matter.

CHAIRMAN BECHHOEFER: Now, we're at contention nine.

MS. BURTON: Consideration of alternatives, contention nine. Failure to conduct a sound and prudent evaluation of alternatives to high density storage racks. In the background and safety summary provided with its license amendment request, Attachment III, page one, the applicant stated, "The plant Millstone must increase onsite fuel storage capacity." Additionally, it was stated, "The applicant has evaluated spent fuel storage alternatives that have been licensed by the NRC and could be feasible for use at Millstone Unit 3. The result of the evaluation is that reracking the Millstone Unit 3 spent fuel pool is currently the most cost effective alternative."

The petitioners contend that the applicant's evaluation was defective, because it was conducted by a subcontractor with a conflict of interest and because it relied on outdated information. The basis for the conflict of interest contention is as follows: the evaluation of spent fuel storage alternatives is contained in Section 12.0, environmental cost benefit assessment of Attachment V to the application. The following conclusion was stated in the evaluation: "Dry storage could be a technically feasible alternative to wet storage. However, the least

expensive type of dry storage has been evaluated to entail a capital expenditure that is approximately 3.5 times as large as that associated with wet storage."

This evaluation was prepared by Holtech International, a company, which specializes in wet pool storage options. Holtech's financial interest in the wet pool storage option is illustrated by these statements: "The new high density racks proposed for Millstone Unit 3 have been designed by Holtech International of Malton, New Jersey" and "The manufacturing of the racks will be carried out by Holtech's designated manufacturer, U.S. Tool and Die, Inc." None of the dry storage options currently certified or licensed by the NRC is manufactured by Holtech International. It is a clear conflict of interest for a company with a financial interest in wet pool storage to evaluate the cost benefit options of dry storage technologies. The applicant may have established the conditions for a self-fulfilling prophecy, by determining that it wanted wet pool storage and then awarding the work to Holtech. In any case, the application failed to demonstrate that the evaluation of spent fuel storage alternatives was free from conflict.

The fact that power plant owners are currently buying dry casks and using them to store spent fuel on site is prima facie evidence that this option is not prohibitably

expensive. Thus, the application is defective, because the evaluation of alternatives to the proposed spent fuel storage method relied exclusively on outdated obsolete information.

I would like to note that it has been brought to our attention that I believe subsequent to the filing of the application at issue here, there have been various actions taken by the NRC concerning licensing of certain dry storage components by Holtech. However, that information did come in, I think, after the application was submitted. We note that, but that certainly does not in way affect our argument in this contention.

CHAIRMAN BECHHOEFER: Okay. Do you know whether the interest in dry cask storage was acquired after the advice given in this case or the analysis in this case or previously?

MS. BURTON: WE have --

CHAIRMAN BECHHOEFER: Not when you became aware of it, but the actual interest.

MS. BURTON: I don't believe we have that information.

CHAIRMAN BECHHOEFER: I see. Well, it could make a difference in that particular claim. Because if they had it when they made the --

MS. BURTON: It would be a matter for discovery.

CHAIRMAN BECHHOEFER: Pardon?

MS. BURTON: It could be a matter for discovery.

MR. REPKA: We respond to this contention by making five or six points. First, did Holtech have a conflict of interest? For the reasons we discussed in our response, the answer is no, of course not. They have been marketing dry cask options for some time. They, also, market wet storage solutions. They clearly have no conflict of interest.

CHAIRMAN BECHHOEFER: At the time they did the analysis --

MR. REPKA: I think it's fair to say, they have been marketing their dry cask systems for some time, long before receiving --

CHAIRMAN BECHHOEFER: Long before that?

MR. REPKA: -- their certificate of compliance. My second point is, would it matter if they had a conflict of interest? And the answer is no. Certainly, this is Northeast Nuclear's evaluation of alternatives, Northeast Nuclear's choice of alternatives, and Northeast Nuclear that submitted this application, and certainly would be in a position to identify and address any conflict that Holtech might have.

The third thing is did Holtech or Northeast Nuclear rely on outdated information? If they did, there is

certainly nothing that Northeast Nuclear knows about. There's certainly nothing that's been pointed out in this contention that suggests outdated information.

Fourth, there is mention of what other licensees are doing with respect to dry cask storage and as prima facie evidence that, in fact, these things aren't prohibitably expensive. That, quite frankly, is completely irrelevant, what other licensees are doing. The reasons they make the choices they make are something that they would need to address. They really speak nothing to the Millstone situation and what the right choice is here, given not only cost considerations, but operational considerations. We can say that Millstone Unit 3 has a very large spent fuel storage pool, for example, that has room to accommodate increased -- a number of racks. Other licensees may simply not have that option.

And last and finally, to the extent that, again, that that choice is somehow called into question, that's clearly outside the scope of this proceeding. That choice is Northeast Nuclear's choice to make. The only evaluation -- you know, that's a matter between Northeast Nuclear and its own regulatory bodies. The only obligation here is that the NRC staff perform some sort of environmental review. As I think we pointed out in our papers, it was the company's position that this was actually a category of amendment that

did not require any environmental review, because it falls into the category called exclusions. We continue to believe that that's true. But be that as it may --

CHAIRMAN BECHHOEFER: Is it printed in the rule there, Part 51, that it's excluded?

MR. REPKA: No.

MS. HODGDON: Yes.

CHAIRMAN BECHHOEFER: No. It is?

MR. REPKA: I defer to Ms. Hodgdon on that.

CHAIRMAN BECHHOEFER: Because, I didn't find that.

MS. HODGDON: I'm sorry to interrupt.

MR. REPKA: Our conclusion was that it qualified for a categorical exclusion. I defer to Ms. Hodgdon.

MS. HODGDON: I didn't mean to interrupt. I will decline until Mr. Repka finishes. I have nothing to say about that until Mr. Repka finishes, except yes.

MR. REPKA: The bottom line is that there is no contention here and I really have nothing further to say.

MS. HODGDON: Okay.

MR. REPKA: Excuse me, yeah, we had cited to 51.21(c)(9).

MS. HODGDON: (c)(9).

MR. REPKA: Right.

MS. HODGDON: It's -- that's correct. It's 51.22(c)(9).

MR. REPKA: Right, and that provides --

MS. HODGDON: Categorical exclusions.

MR. REPKA: -- a cask for increased environment -- or doesn't involve an increase in consequences. And for the reasons we address in the application, the answer is no.

CHAIRMAN BECHHOEFER: Yes. My earlier question was whether it is -- spent fuel pool expansion is exclusively listed under the -- there's a list of categorical exclusions. I don't have the rules in front of me, but is it included in that list?

MS. HODGDON: Judge Bechhoefer may recall that this matter was discussed at Vermont Yankee a number of years ago.

CHAIRMAN BECHHOEFER: Yes.

MS. HODGDON: Ten years ago, where the staff and the licensee both took the position that spent fuel pool expansion qualified for categorical exclusion. The staff has, as we've said in our brief, prepared environmental assessments on spent fuel pool expansions. And a long time ago --

CHAIRMAN BECHHOEFER: If it were a categorical exclusion, you would not have to do so.

MS. HODGDON: Well, they put -- no, they don't have to. They could avail themselves of the categorical exclusion. Previously, they were looking into dose to

workers. That dose is way down. And considering that dry cask storage is not even a licensing action and the dose is at least as large, it would seem that that's not a very good reason for doing an environmental assessment. And then there used to be a lot of concern about cleaning up and cutting up racks and shipping them offsite. In other words, the technology has really overcome a lot of the staff's interest in this. But, the staff does continue to prepare environmental assessment in some, at least, spent fuel pool expansions by re-racking.

And so, the question -- I'm not quite sure what the question is, if it's does the staff think that a categorical exclusion is available? Yes, the staff does. Do they prepare them? Yes, but in reading the rule, you'll see that the rule only provides for pairing environmental assessments, where categorical exclusion is available, only -- it says "whether special circumstances." And so, nobody says there's any special circumstances with regard. So, the short answer -- it sounds long, but anyway, getting back to it, the categorical exclusion is available in that area. Where you've done the shally so called notice and no significant hazards consideration, you can -- provided you find those other things in that section, no offsite -- no significant increase in offsite consequences, whatever, you can -- or occupational dose, I believe, you can go ahead and

take the categorical exclusion.

So, I wanted, also, to point out, if it's my turn, I'm not sure --

CHAIRMAN BECHHOEFER: Yes, it is.

MS. HODGDON: -- with regard to Ms. Burton's argument, that they didn't know about -- at the time that -- at the time they filed, they didn't know. And I think they should have known, because it had already been in the Federal Register. At the time the application is filed, that's what it goes to. The fact is that Private Fuel Storage is proposing to use a Holtech system and that application has been in-house for quite some time. I can't give you a date, but it goes back to early '98 maybe or earlier than that.

And then the other thing is that they relied for their information on this -- on previous -- a 1997 version of this document. I think these are prepared at the end of the year and this one is '98. So, when it gets to be 2000, they'll do a '99. It's not in here either, but if you want that information currently, you have to look in the Federal Register. And so, that's -- that's all I have for that.

MS. BURTON: May I point out -- pardon, if you were about to engage in a discussion.

CHAIRMAN BECHHOEFER: No, we were about to come back to you.

MS. BURTON: Thank you. May I point out that by oversight, certain information that appeared in Mr. Lochbaum's declaration didn't for some reason make it into the supplemental petition on this point; and more particularly, I refer to page three of Mr. Lochbaum's declaration, executed October 4, 1999, in support of the assertion that the information used to develop the cost benefit evaluation is obsolete and immaterial. Particularly, Mr. Lochbaum cited to Section 12.7 of Attachment V, as providing three references used in the development of the environmental cost benefit assessment. These documents are dated April 1978, May 1984, and November 1990. The validity of cost comparisons using data that is at least nine years old is at best questionable. Many dry casks have been certified by the Nuclear Regulatory Commission since November 1990.

May we be permitted just one further brief note on this issue? I think it is the significant fact that at the time of the evaluation by Holtech, it was not, at that time, licensed to handle or sell or deal in dry storage components and, therefore, the conflict of interest is clear, as we have asserted.

MR. REPKA: Let me make just a couple of responses. One, Holtech has been authorized to sell dry casks since presumably they first invented dry cask. I

mean, a dry cask could have been sold and licensed under the NRC's plant specific licensing process for independent spent fuel storage installations for as long as that has been on the books. They have not had a certificate of compliance for licensing by a general license approach until this year, but that did not preclude them from marketing, making, selling dry cask storage systems. But, in any event, I think that whole issue of the conflict of interest is completely frivolous.

Some of these additional things that are pointed to in Mr. Lochbaum's earlier affidavit related to Holtech's evaluation of costs and benefits and allegedly outdated information, I think this is not referred to in the contention or the basis statement; so, therefore, it's a very questionable status. But beyond that, it doesn't make any mention of the staff's environmental assessment, which has come out since this was done, or allege in any way that the staff's environmental assessment relies on the same documents or that the staff's environmental assessment is inadequate.

And third, again, you know, we reiterate our position and the company's position in the application was that no EA was required at all.

CHAIRMAN BECHHOEFER: Ms. Hodgdon, do you know what the date of the staff's environmental assessment was?

MS. HODGDON: Yes, it's --

CHAIRMAN BECHHOEFER: It doesn't have to be precise.

MS. HODGDON: It's September 6, 1999.

CHAIRMAN BECHHOEFER: Oh, okay.

MS. HODGDON: Or the 7th, I believe -- is it the 6th or 7th? It's either the 6th or the 7th.

CHAIRMAN BECHHOEFER: Well, I don't care --

MS. HODGDON: No, I will look it up.

CHAIRMAN BECHHOEFER: I want the time -- general time frame.

ERICKSON: September the 7th.

MS. HODGDON: 1999, yes. It's September 7th -- September 7, 1999.

CHAIRMAN BECHHOEFER: Okay. Anything further on nine? If not --

MS. BURTON: Just quickly on that point of the staff's environmental assessment.

CHAIRMAN BECHHOEFER: Pardon?

MS. BURTON: Just quickly on the point of the staff's environmental assessment.

CHAIRMAN BECHHOEFER: Oh, okay.

MS. BURTON: That the staff undertook to do an environmental assessment doesn't cure the conflict of interest. What it does is it puts into question the

validity of the environmental assessment, as it was necessarily based upon the submission of the applicant. And what we're saying is that this conflict of interest affects the entire application process, including up to and -- including these proceedings today. And that is a serious matter and it should not be tolerated and it certainly not frivolous.

CHAIRMAN BECHHOEFER: We're on to contention 10, I guess.

MS. BURTON: Yes. Contention 10: failure to consider the severe accident implications of alternative options. The application has not properly evaluated the alternative options available for managing spent fuel at Millstone Unit 3 and the implications of those options for the probability and consequences of severe accidents. A severe accident is defined here as an accident, which involves partial or total uncovering of fuel assemblies and exothermic reaction of fuel cladding. Severe accidents are not remote and speculative events. Moreover, they can have very large long-term offsite consequences. Finally, severe accidents can be avoided by adoption of dry storage of spent fuel using technology already approved by the NRC.

Our basis for this contention is a severe accident could occur in the manner and with the consequences described in the February 1999 Thompson report, Exhibit 1.

A severe accident is not remote -- it is not a remote and speculative event, because among other reasons, it is an almost certain outcome of a severe reactor accident, which involves substantial containment failure or bypass. The occurrence of such a reactor accident is assumed for purposes of emergency response planning and for other regulatory purposes. Dry storage technology is available; see for example Exhibit 1.

That concludes my presentation of that contention.

CHAIRMAN BECHHOEFER: Okay.

MR. REPKA: This contention essentially revisits some of the issues raised in contention eight and is redundant to that contention and it must fail for the same reasons. The severe accident implications of alternative designs -- backing up, first things first, is the design basis accidents for this facility in the spent fuel pool are the fuel handling accident and the misloading accident. Those are the only accidents with the design basis. Any other further -- as we've discussed before, any further accidents would be backfits and on the Atomic Energy Act side of the regulatory structure. And so, there's no basis to require evaluations of severe accidents on that basis.

Now, the contention doesn't cite NEPA, the National Environmental Policy Act. But since it is focusing on the evaluation of alternatives, that's the one place

where you would say an evaluation of alternatives may be required. But with respect to that, it's redundant in a lot of ways to contention eight and, again, relies upon the Thompson report. However, that report has no nexus established to Millstone, number one. It was Sharon Harris report. Number two, it does not establish -- contrary to the claims being made, it does not establish the probability for severe accidents. It certainly doesn't establish, in any way, how that probability would be increased by the proposal at issue here. And finally, with respect to those kinds of arguments and those kinds of concerns, that it needs to addressed in a NEPA evaluation. They were addressed very directly in the Yankee Atomic, ALAB 919 that you referred to earlier.

So, I think this contention is really -- it's a combination of lacking in specificity, lacking in basis. It's redundant and it raises outside scope issues.

CHAIRMAN BECHHOEFER: Ms. Hodgdon?

MS. HODGDON: The staff has already expressed a similar opinion in its filing. And the only point that perhaps we would have made that wasn't made by the licensee is that, in addition to all those things, the petitioners have not offered any basis in fact for the statement and, instead, they have offered Dr. Thompson's opinion; but his opinion must be substantiated. It, also, needs to have a

basis in fact.

Staff read Exhibit 1 and couldn't see anything in Exhibit 1 that had anything to do with Millstone; couldn't see any reason that it should be offered in support for this contention on Millstone 3. However, since it obviously has not applicability to Millstone 3, it just -- even if one took it into consideration, one would come to the same bottom line, which is this is an inadmissible contention.

MS. BURTON: And may I reply?

CHAIRMAN BECHHOEFER: Yes.

MS. BURTON: It appears we have a factual dispute here. One side says that -- here is one set of facts and the other presents another set of facts and we are in clear disagreement here. We have adequately set forth the criteria that are required for the admissibility of a contention. What we are setting forth in contention 10, in particular, is our contention that this application presents circumstances presenting potential for an avoidable accident and that the alternative options available should be considered, in order to avoid the accident, and that such options do protect the public health and safety, do very significantly reduce risk of serious accident, and should have been considered and should dictate really denial of this application. And as far as this contention is concerned, I would incorporate our previous discussion that

does relate to this contention in contention eight.

And finally on the point of what we are raising here, again, this -- we are presenting new safety information, in the sense that these issues have never been litigated. And there may have been determinations made before administrative boards; but, to date, I'm not aware that there has been litigation of the specific issues we're raising in this contention.

CHAIRMAN BECHHOEFER: I have a question, which is really directed at Dr. Thompson, rather -- and that is, we -- or I, personally, at least, have the same reaction that Ms. Hodgdon had, I think, that she couldn't find anything in the North Carolina report that would be relevant to our consideration here. And what we'd like to do is get some examples, at least -- maybe not everything, but some idea of anything in that report that would be applicable to Millstone, as well. And I might say, we are sort of prepared to take a break, so you can have a few minutes to look through it and then when we come back, we can consider that. You have a better chance to reply.

JUDGE COLE: Now, this is Exhibit 1 to --

CHAIRMAN BECHHOEFER: Yes.

JUDGE COLE: -- the supplemental petition?

CHAIRMAN BECHHOEFER: Yes. We've all looked through that and we're not sure how you say it would affect

our consideration here. And as I say, the staff seemed to have the same reaction. I would like you to just point that out, if you could. And I thought we would take a break anyway, so --

JUDGE COLE: Ten minutes.

CHAIRMAN BECHHOEFER: Yeah, 10 minutes. At least -- like a 10 minute break maybe. If you need a little more time --

JUDGE KELBER: Four-thirty-five.

[Recess.]

CHAIRMAN BECHHOEFER: Back on the record. Dr. Thompson, did you -- were you able to find some areas that we ought to specifically focus on, in looking at your report?

DR. THOMPSON: Yes, I was. I thank the Board for the opportunity to explain the connection between this Sharon Harris report and the Millstone situation. And a report such as this could be prepared for Millstone. It would require time and money and neither were available, which is why such a report doesn't exist. I'd like the Board to turn to Appendix B of the report.

CHAIRMAN BECHHOEFER: "B" as in boy?

DR. THOMPSON: "B," yes; "B" for boy.

CHAIRMAN BECHHOEFER: Okay.

DR. THOMPSON: And this appendix addresses the

matter of severe reactor accidents, summarizes very briefly the state of knowledge about such accidents in a generic matter, and mentions the findings of individual plant examinations for Westinghouse plants. Both the Sharon and Millstone 3 plants have that in common. They are Westinghouse PWRs.

This appendix then summarizes the findings of the Harris RPE, which was performed as a level two PRA, and that being a level 2 PRA estimated the probability and magnitude of potential releases involving containment failure or bypass.

I have no knowledge of what analogous findings have been made for Millstone 3. However, the existence of a set of emergency response plans for Millstone 3 is predicated upon the assumption of some degree of containment failure or bypass. That's the extent of my specific knowledge on Millstone. So, this appendix is a combination of generic discussion and Harris specific discussion and could be repeated for Millstone 3, subject to access to the right documentation.

Turning now to Appendix C, this addresses the potential of loss of water from a pool and talks about various possible scenarios, including earthquake and cask drop. For present purposes, I'd like to focus on Section 5 of Appendix C, titled "a pool accident induced by a reactor

accident." This, again, is a combination of a generic discussion and a Harris specific discussion. I'll wait to the Board members have that -- okay.

The specific discussion in Appendix C, Section 5, has to do with the time required for water to boil away from the Harris pool. The generic discussion has to do with the ranges of dose level that would be experienced in the immediate vicinity of a reactor containment, in the event of a severe accident with containment failure or bypass. This shows that the dose levels are such as to preclude access for many days; thereby rendering it almost certain that the reactor accident would be followed by drying out of the pool, aggressive drying out due to evaporation.

Turning now to Appendix D, and I'm following the logical sequence here. Appendix D is entirely generic and not -- with the exception of the release magnitude, which appears right at the end of Appendix D, and some discussion about the dimensions of the pool and the racks. But the bulk of Appendix D is generic and has to do with the induction of -- or the causation of exothermic reactions by partial or total loss of water from a pool.

So, these three appendices, B, C, and D, have followed the scenario through from a reactor accident, to preclusion of access, to drying out, and to exothermic reaction, which causes a large release. Appendix D is a

brief summary of the kind of offsite consequences that would be experienced. Again, this is partly a generic discussion and partly a Harris specific discussion -- Appendix E, E is the consequence. So, we're following B, C, D, E, the four appendices, which I draw your attention in this exhibit.

And in order to perform -- to write an equivalent set of appendices for Millstone 3, it would be necessary to have access to the IPE for Millstone 3 and/or to any PRA that were available and to a few other items of information. But the generic discussions about precluding access and about heat up experienced in the pool, a water loss, would be pretty much identical. And the bottom line here is that a severe reactor accident involvement containment failure or bypass would almost certainly lead to a severe pool accident involving a large release of radioactivity, principally cesium.

JUDGE KELBER: Thank you. That's very useful.

JUDGE COLE: Dr. Thompson, just to -- one or two questions. In Appendix E, paragraph number two, characteristics of postulated releases, the last part of that you say, "Note that all of the cesium 137 and the effected fuel is assumed to reach the atmosphere, an assumption which is explained in Appendix D." Where in Appendix D is that explained?

DR. THOMPSON: Bear with me one moment. If you

turn to Appendix D, for dog, page D-9, Section 7 --

JUDGE COLE: Okay.

DR. THOMPSON: -- first full paragraph in Section 7 addresses the matter of the magnitude of the release from the fuel handling building, given an exothermic reaction. And I simply adopt the same assumption used by Brookhaven study, namely on attenuation of the release, and I cite footnote 12 -- I'm sorry, footnote 13 as the Brookhaven assumption.

JUDGE COLE: Do you think that's a reasonable assumption?

DR. THOMPSON: In the event of -- if the scenario is a partial drainage scenario, the exothermic reaction will be between steam and zirconium, which will yield liberal amounts of hydrogen and I would anticipate ignition of the hydrogen creating a breach in the building. If the scenario is one of complete full dry out, then the reaction is now between air and zirconium; similar heat release -- similar magnitude of release from the fuel, but, in that case, the fuel building could be assumed to remain intact and the release pathway would be through the ventilation ducts and they would undoubtedly be some attenuation in that scenario. So, for simplicity, I just took the --

JUDGE COLE: Yeah.

DR. THOMPSON: -- one assumption.

JUDGE COLE: I would be recalling this incorrectly, but I thought in the Brookhaven report, they took the total amount of the isotope and distributed it uniformly over a certain land section. Do you recall that, sir?

DR. THOMPSON: In terms of consequence?

JUDGE COLE: In terms of distribution of the radioisotopes.

DR. THOMPSON: Offsite?

JUDGE COLE: They assumed -- yes, they assumed uniformed distribution over a certain land area.

DR. THOMPSON: Yeah, I don't recall that.

JUDGE COLE: It seems to me to be a pretty unrealistic scenario.

DR. THOMPSON: Yeah, and in Appendix E, I use something slightly more sophisticated, which is an average of a set of Gaussian distributions over a typical range of weather.

JUDGE COLE: All right, sir, thank you.

CHAIRMAN BECHHOEFER: Mr. Repka, any comments?

MR. REPKA: A couple of comments. First, I think that was a good walk through of Exhibit 1 and I think the contents does really no more than describe what we already knew was in Exhibit 1. And I believe we responded to those types of arguments in our responses to contentions eight,

nine, ten, and eleven on the papers, and nothing that I heard here today would alter our positions or conclusions we reached there.

I think the basic points are that, one, none of this raises issues that are cognizable, given the current regulatory structure; and, two, given this -- the limit and scope of this proceeding. There is no link made in any of these discussions of the consequences of the accidents, the types of accidents, to the specific proposal we have here. There's no indication of what it is in the proposal that's changing any and all of these concerns.

CHAIRMAN BECHHOEFER: Is that different from Harris or don't you know?

MR. REPKA: Is what different from Harris?

CHAIRMAN BECHHOEFER: The alleged connection. Harris, too, involved --

MR. REPKA: These are related to -- they're related to Harris. They're related to the current spent fuel pool, to the extent there's high density storage. And as Dr. Thompson said, they're generic. They could be applied to any spent fuel pool in the country. And my point is there is -- they are generic. They're not the kinds of issues that are tied in any way to the specific proposal at issue here.

For example, there is -- you know, we're talking

about a spent fuel pool accident induced by a reactor accident. Well, there's nothing unique raised here, as to why that's probable, why that's made more probable or even credible by the proposed increase in the capacity of spent fuel pool. The pool dry out scenario, the drain down scenario, all of those things are things that, for example, in the Brookhaven report, are just postulated to occur and then the consequences are analyzed. There's no showing anywhere as to why those are likely or why those are made more likely by the proposed amendment that's at issue.

One example of that is, again, we talked earlier about the thermohydraulic analysis and the analysis of record in the FSAR example talks about certain loss of spent fuel pool cooling scenarios, the most limiting being a full core off-load with a loss of cooling at the end of plant life, and talks about -- provides curves as to increases in the temperature in the pool. There's no discussion in Exhibit 1 or anywhere as to how that's changing, how the likelihood of all of these consequences are -- they're alleged to occur and are analyzed, how the likelihood of that is increased.

So, we really don't have a tie to the current regulatory structure that would allow consideration of these events in this proceeding, number one; and number, two, there's no tie to this specific proposal, to say why it is

it should be litigated in this proceeding.

CHAIRMAN BECHHOEFER: Do you know whether this report has been accepted as a basis for a contention in Sharon Harris or hasn't there been a ruling on that?

MR. REPKA: I don't know the answer to that question.

MS. HODGDON: I do.

CHAIRMAN BECHHOEFER: I'm not sure offhand.

MS. HODGDON: I do.

CHAIRMAN BECHHOEFER: Well, you're next. You can answer the question.

MS. HODGDON: All right. I just wanted you know that I know the answer to the question --

CHAIRMAN BECHHOEFER: Okay, good.

MS. HODGDON: -- in case Mr. Repka doesn't know it.

CHAIRMAN BECHHOEFER: Well, why don't you --

MR. REPKA: I'd be glad for Ms. Hodgdon to answer the question.

MS. HODGDON: No, I'm not -- I interrupted Mr. Repka.

MR. REPKA: No, I'm done. I really feel like there's --

JUDGE COLE: Well, I think you should tell us.

MS. HODGDON: I should say that I know the answer

to this.

CHAIRMAN BECHHOEFER: Okay.

MS. HODGDON: The staff, when it responded to the initial intervention petition in Harris last May -- in May of this year, stated that they were going to prepare an environmental assessment. This contention would be addressed to the -- any contention based on this report would be addressed to the that environmental assessment. I don't know whether that is published or not. If it's not, it's to be published. Therefore, there has not been an opportunity for the intervenors in Harris to file environmental contentions, and so it has not -- this has not been offered as the basis of any environmental. The time is not ripe for that. Did you understand my answer --

CHAIRMAN BECHHOEFER: Yes.

MS. HODGDON: -- or should I --

CHAIRMAN BECHHOEFER: Yes, yes.

MS. HODGDON: We're not there yet. In Harris, they're ahead of us in some respects and they're behind us in others.

CHAIRMAN BECHHOEFER: Okay. I just wanted to have it as a gauge. If they had been a ruling on it, I would like to know about it. So, I guess there hasn't been.

Anything else on 10, I guess?

MS. BURTON: I'd like to take the liberty of

pointing to just one example, if it would be helpful, from Exhibit 1, which does show a nexus between Dr. Thompson's report and Millstone, and that is something that appears at page three under the subheading "capacity and configuration of pools C and D." And it would be in the second paragraph of that section, where there is a reference to how there are to be -- there is to be, under the proposal, a smaller center, center distance than racks in pools A and B, nine inches instead of 10.5 inches. Now, those numbers are not far off from the numbers, which appear in our supplemental petition at page 24, where we are addressing a decrease in center, center distance from the present 10.35 inches to 9.017 inches. And in Dr. Thompson's report, he does make the statement that this highly compact arrangement allows more PR fuel -- excuse me, PRW fuel to be placed in a given pool are, but, also, has adverse implications for safety. That would be just one very tiny example of how the information that is set forth in Dr. Thompson's Exhibit No. 1 has application to our contentions here.

JUDGE KELBER: The illusion is made both here and earlier to the thermodynamic problems posed by decreasing the center to center distance. If this contention is accepted, are you prepared to support it with independent thermohydraulic calculations?

MS. BURTON: I guess our response is that the

coalitions do have access to qualified independent consultants, who would be able to perform that service.

JUDGE KELBER: But the current contention is not based on such calculations. We're trying to get at the basis for admitting it.

MS. BURTON: That independent analysis --

DR. THOMPSON: May I speak, please?

MS. BURTON: May I defer to Dr. Thompson, please?

JUDGE KELBER: Before you -- earlier, when we talked about reactivity, you just said you dependent on Holtech's calculations. Now, on the thermohydraulics, is it a similar situation?

MS. HODGDON: Could in interrupt for a second? Are there two questions here: have you done any calculations on your own and do you plan to --

JUDGE KELBER: I want to know if --

MS. HODGDON: -- do you plan to, if it's admitted?

JUDGE KELBER: -- if it's admitted, is there any calculational basis to support it?

MS. HODGDON: So, we had already established that they have not done it up to this point?

JUDGE KELBER: Have we established that?

MS. HODGDON: I don't know, that was my question.

DR. THOMPSON: I'm happy to answer both questions. Firstly, the Sharon Harris report that I just went through

critiques a variety of studies of this problem that haye been done by consultants to the NRC, and this is a very spotty record, one of incomplete studies and recommendations for further studies that were never followed up. And in short, it's a very spotty record of analysis. And I would be quite happy to do a simple modeling exercise on this myself and I might seek assistance to do so. The main problem would be getting someone to pay for it.

MR. REPKA: I would like to react to that, just a little bit. I think contention 10, I think we need to recalibrate just a little bit and go back to what contention 10 is really all about. And it started out as a statement that a severe accident is defined here as an accident, which involves partial or total uncovering of fuel assemblies and exothermic reaction of fuel cladding. Severe accidents are not remote and speculative events. And then it goes on and it relies on the Thompson report.

That is a contention that really lacks any regulatory, much less technical basis, and I think that really is the simple answer to this question. I mean on the NEPA side, ALAB 919 addresses it directly. On the technical side, the design basis of the plant is what it is, in that the severe accident scenarios are beyond design basis. But beyond that, just like in ALAB 919, there's no basis to address the -- to establish the probability -- the realistic

probability of these total -- partial or total uncovering of fuel assemblies. We're talking about center to center spacing and that may have some affect on criticality, but that's not that contention here and that's not shown. That may have some effect on consequences of an accident of this postulated uncovering of fuel assemblies, but there's nothing in the record to establish that that uncovering could occur.

So, I just think we've got very far afield from what this contention was really all about.

JUDGE KELBER: No, I was reacting more to some of the particulars in discussion of his report, rather than this particular contention.

CHAIRMAN BECHHOEFER: Okay. Is there anything more on 10 that anyone wishes to add, before we go on to 11?

[No response.]

CHAIRMAN BECHHOEFER: If not, we'll go on to 11.

MS. BURTON: Contention 11: an environmental impact statement is required. The NRC published an environmental assessment and finding of no significant impact in the Federal Register on September 7, 1999. Insofar as the environmental assessment is significantly flawed and incomplete and the proposed activity will significantly increase the probability and offsite radiological consequences of accident and, thus, have a

significant effect on the quality of the human environment, an environmental impact statement is required.

Our basis is as follows: this contention incorporates by reference contentions number one through ten and adopts by reference the expert opinion rendered by Mr. Lochbaum and Dr. Thompson, that is set forth in our amended supplemental petition. More particularly, in its environmental assessment, the NRC staff reached an incorrect conclusion, in that its analysis failed to consider: (1) credible scenarios of fully blocked flow channels; (2) the drop of an empty fuel storage rack during installation; (3) the drop of a cask during cask movement; (4) enhanced risk of a criticality accident due to the improper implementation of new administrative controls; (5) significant increase in the probability of a criticality accident, as a consequence of removal of an existing barrier against inadvertent criticality in the spent fuel pool; (6) the fact that the proposed criticality control measures violate NRC regulations and, hence, are impermissible; (7) significant increase in the probability and consequences of an overheating accident; (8) significant increase in probability and offsite consequences of accidents involving partial or total uncovering of fuel assemblies and exothermic reaction of fuel cladding of severe accidents; (9) failure to conduct a sound and prudent evaluation of the

alternatives to the proposed use of high density storage racks; and (10) the severe accident implications of alternative options.

The proposed license amendment is not supported by an environmental impact statement, in violate of NEPA and NRC's implementing regulations. And EIS should examine the effects of the proposed license amendment on the probability and consequences of accidents at the Millstone Unit 3 spent fuel pool. Further, as required by NEPA and the NRC policy, the EIS should, also, examine the costs and benefits of the proposed action, in comparison with alternatives, including the alternative of dry storage. NEPA requires federal agencies to prepare an EIS before undertaking any major federal action, which may significantly affect the quality of the human environment. The NRC's implementing regulations at 10 CFR 5120(a), also, require the NRC to prepare an EIS for any licensing or regulatory action, which is a major federal action significantly affecting the quality of the human environment.

As previously discussed, Brookhaven National Laboratory (BNL) evaluated the consequences from a postulated accident in the spent fuel pool examining four cases. For the least serious case, BNL reported 1,500 additional cancer deaths to the population living within 50 miles of the plant. With respect to criticality accidents

in the spent fuel pool, a search of publicly available records in the NRC's public document room by petitioners' expert, David Lochbaum, failed to identify any previous evaluation.

The petitioners contend that the proposed activity will significantly increase the risk of criticality at the Millstone Unit 3 spent fuel pool. The petitioners contend that the proposed activity involves a heightened risk of partial or total uncovering of fuel assemblies and exothermic reaction of fuel cladding for which no accident evaluation has been conducted and, hence, no environmental evaluation performed. In proposing to implement new administrative controls, which are not permissible under NRC regulation, and to eliminate an existing barrier against inadvertent criticality, as the license amendment proposes, the activity significantly increases the probability of a criticality accident with significant environmental and radiological consequences, which have not been evaluated.

The environmental and radiological consequences of a severe accident at a spent fuel pool are discussed in Exhibit 1, the support submitted by petitioner's expert, Dr. Gordon Thompson, in proceedings involving the Sharon Harris nuclear power plant, see particularly discussion in our supplemental petition to pages five to 14. The environmental assessment and finding of no significant

concludes that quote, "the results of the previously analyzed and NRC accepted design basis accident have bound the radiological consequences of accidents analyzed for the spent fuel pool re-rack." However, since there has been no previous evaluation of criticality accidents in the spent fuel pool and the environmental assessment is seriously flawed and incomplete for the reasons stated, the finding of no significant impact is unsupported and incorrect.

An EIS must, also, examine the costs and benefits of the proposed action and compare them to other reasonable alternatives. Dry cask storage is one such reasonably available alternative. In addition, the EIS must consider severe accident design mitigation alternatives, such as dry cask storage, low density pool storage, and installation of safety grade equipment for restoring cooling and water makeup to the spent fuel pool, in the event of a severe reactor accident that prevents access to the pool. Consideration of severe accident design mitigation alternatives is required in a NEPA analysis for an initial licensing decision, citing Lemark Ecology Action v. NRC, 869 F2d. 719, 736 to 741, 3d. Circuit 1989. Similarly, a -- must be required in any EIS prepared for the present license amendment. Even if the licensing board determines that an EIS is not required under NEPA and 10 CFR 5120(a), the Board should nevertheless require an EIS as an exercise of its

discretion, as permitted by 10 CFR 5120(b)(14) and 5122(b).

NRC regulations in 10 CFR 5120(b)(14) and 5122(b) provide for the preparation of an EIS, where, upon its initiative or request from any party the Commission finds that "special circumstances" exist. Special circumstances "include the circumstances where the proposed action involves unresolved conflicts concerning alternative uses of available resources within the meaning of Section 102(2)(e) of NEPA." The petitioners respectfully submit that the application does prevent -- present such special circumstance. The petitioners accept the NRC's statement in its environmental statement that "loss of full core off loading capability will occur, as a result of refueling outage six, RFO 6, that started on May 1, 1999."

During a community breakfast sponsored by the applicant on November 16, 1999, Leon J. Olivia, chief nuclear officer of the Millstone nuclear power station stated that RFO 6 was completed in June 1999. In consequence, the petitioners recognize that during the intervening five months and for the foreseeable future, Millstone Unit 3 has suffered and will continue to suffer loss of capability to conduct a full core off-load, should such event be required for safety or maintenance purposes. The petitioners well recall the issues regarding full core off loading at Millstone Unit 1. The petitioners were

informed by the Time Magazine cover story, which appeared in March 1996.

The petitioners are very concerned that very serious environmental consequences of an unevaluated criticality or other accident event at the Millstone Unit 3 spent fuel pool have not been subjected to scrutiny. The petitioners include families with young children, who live within two miles of the Millstone station and, hence, are vulnerable to serious injury in the event of such unevaluated accident.

On September 27, 1999, the applicant pleaded guilty to felonies under the Atomic Energy Act, which involved a course of conduct of willfully providing false information to the NRC. According to newspaper accounts in this instance, the applicant once again set industry records for its conduct in operations at Millstone. Public records maintained by the State of Connecticut show heightened levels of cancer incidents, including childhood Leukemia, malignant melanoma, breast cancer, prostate cancer in New London County, in the vicinity of Millstone, above levels elsewhere in the state.

The petitioners believe that the present application to more than double the density of spent fuel assemblies at Millstone Unit 3, an application remarkable for its insufficiencies and disregard for NRC regulations,

which require physical barriers to protect the public health and safety, presents a special circumstance, calling for the exercise of the Board's discretion to require an environmental impact statement.

Now, I have read from our submission, which requires one or two qualifications. We have been informed by the -- both the applicant and the staff that a notice appeared in the Federal Register in error, regarding the loss of capacity -- time of loss of capacity for a full -- for full core off-load. We understand that that is being corrected by additional notice, yet to appear in the Federal Register. We're a little bit concerned that the proceedings and the record of the proceedings made their way to the Federal Register with such a significant mistake and wonder what that bodes for other aspects of this application.

And I would like to add one or two points. Further, on the issue of under NEPA, the requirement that there be a major federal action involved, and, here, we contend that the major federal action involved here is the de facto creation of permanent high level radioactive waste facility at Millstone Unit 3 and there has been absolutely no environmental review of that -- of the proposal in this application. We know that this application proposes to fill the space available at the pool with spent fuel. We know that the pool has a position for a cask for ultimate

transport of some of that fuel elsewhere. But, we, also, know that there is no information in this application concerning the removal of any of the high level waste being stored at the site, at this time; merely, that the amount is being added to, it's being more than doubled, and it has not been evaluated under NEPA. This is a serious oversight.

And this community is entitled to the benefit of the provisions of the federal environmental protection laws and that is a point that we wish to emphasize here. I'm anticipating, having read the submissions of the applicant and the staff, that there will be references to other proceedings and determinations before other bodies that have addressed issues that are somewhat similar to those that we raise here. But, again, we are not aware that these issues have been litigated and, therefore, we do present that our contention raises legal and factual issues.

Also, on this point, I would like to reference the contentions that we make under NEPA, also, are made elsewhere, but separately, and there's been a little of confusion about that in our contentions. We are contended these issues are pertinent and properly addressed both under NEPA and under the Atomic Energy Act. So, we're not saying that we should be precluded from consideration as to one area of the law, in favor of another. I think that's all I have to say, at this time.

CHAIRMAN BECHHOEFER: Ms. Burton, I'm a little bit troubled about your -- at least your expressed reason why this particular action may constitute a major federal action. I was always under -- first, I'm sure -- I haven't found it listed in the 5122, I think, as one of the -- 22 may not be right; I don't have it in front of me. It's one of the actions where the Commission has explicitly said it's a major federal action. There are certain types of actions listed. I had always understood that this was subject to an environmental assessment. I had always thought that this would be subject an environmental assessment. From what I hear from the other parties, it may not even be subject to an environmental assessment. But, if it were subject to an environmental assessment, of course, there could be a determination made that it was important enough and invoked significant enough changes to warrant an environmental statement. But, I'm not sure and I thought that traditionally, in these expansion cases, re-racking cases, that possibility had been explored and never been found to create an impact sufficient to require an impact statement.

That's my understanding of what the assessment say, and I haven't looked at all of them, I must say. But, I wondered why there's anything different here. I might say the possibility of a permanent water storage is pretty speculative, because the proposal in front of us involves

approval of additional capacity. It doesn't say anything about permanence. There's a limit to the license of a certain number of years, which were read out -- I guess the license term plus some years, somebody had mentioned it, so that it's not a permanent disposal site. It's conservatively, I guess, oh, under 100 anyway. So, that's why I don't know that it's a realistic possibility, at least to use the basis you propose, as a basis for acquiring a new impact statement.

It possibly could be, if you add some of the asserted injuries or consequences, that the environmental assessment could be expanded and made into an environmental impact statement, on a case specific basis. But, I just wanted to track what you're saying. So, do you have any further explanation of how you get to federal -- major federal action?

MS. BURTON: Well, let me try to explain a bit. We have previously looked at the business of future removal of the waste from the storage area and it is very clear that there's nothing in this application that addresses that issue. And so, in terms of that, to the two coalitions that I'm representing here, it is entirely speculative that there will ever be removal of any of the fuel from that location. There certainly is no --

CHAIRMAN BECHHOEFER: Well, would not there have

to be a further application for extensions of time to operate the spent fuel pool?

MS. BURTON: That may well be --

CHAIRMAN BECHHOEFER: You don't allow it forever. You allow it for whatever the license term is and there would have to be another application later that possibly could be opposed.

MR. BRUNO: Well, I understand that this waste does pose potential to injure people for some 240,000 years, so we may be anticipating very many license renewal applications. Most of us won't be around for most of that time. But, I think it's --

CHAIRMAN BECHHOEFER: Clearly -- clearly, yes, but --

MS. BURTON: -- pure speculation to guess if it's going to happen before that time.

JUDGE KELBER: Wait a minute, are you asking us to tell the Commission they're wrong to have confidence in the waste -- eventual existence of a waste repository?

CHAIRMAN BECHHOEFER: Yeah, I mean, I think we're bound by it, at some point in time. We can't assume it won't exist.

JUDGE KELBER: I think we are bound by that.

CHAIRMAN BECHHOEFER: I think we are; I think we are.

MS. BURTON: If that's the impression, Dr. Kelber, that we've left, that's not the one we intended to, because we've tried to focus here on the business of the cask and that it is not being addressed with respect to that cask, how, if, when, or where the fuel will ever be moved from that site.

So, to address further, Judge Bechhoefer, the issue of environmental assessment reports, I'd like to express, on behalf of the coalitions I represent, our disappointment, frankly, that the staff of the NRC at least hasn't seen fit to support, in any way, apparently any of our contentions here; but most particularly this one, on the environmental consequences of this action, which we maintain will, because of the expansion of the pool, the errors, and the application, and the various factors that you have heard, perhaps ad nauseam all day today, and we're disappointed that our own agency, that we look to to protect us, hasn't taken a position that is sympathetic to ours.

We have become aware that there never has been apparently an environmental impact statement prepared with reference to expansion of a spent fuel facility, but that doesn't mean that those were correct decisions that were made all along the way. And we stand here today appealing to this Board to correct mistakes of the past that have led us to this point, where maybe by error, it was reported that

at Millstone 3, things were allowed to go so far for so long that the prospect is that they have run out of space to put their -- to do a full core off-load, at this time.

We haven't seen documentation that assures us that the information initially provided was correct, because we have, at a certain point, tended to suspend our disbelief in some areas. But, we assert here that we have set forth legal and factual grounds sufficient to compel an environmental impact statement to be done on this issue before there is any decision to allow an increase in the spent fuel at Millstone Unit 3.

CHAIRMAN BECHHOEFER: Mr. Repka?

MR. REPKA: We have already discussed many of the issues raised in this contention here earlier today and I don't want to revisit all of that discussion. In addition, we've responded again in our paper to what Ms. Burton just read, so I would defer to what we said there.

I would just like to -- make highlight again a few particularly important points, without repeating everything. First is that -- and perhaps most fundamentally, there is no basis in law and fact for the contention that an EIS is required in this case. As Judge Bechhoefer, I think you were alluding to, it's 10 CFR 51.20(b), lists those actions in the NRC regulations, which, of course, do bind the NRC, for which an environmental impact statement is required.

CHAIRMAN BECHHOEFER: Yeah, I was referring to that. I guess I got the number wrong. I don't have it in front of me.

MR. REPKA: I'm confident you were referring to that.

CHAIRMAN BECHHOEFER: I was.

MR. REPKA: And that does not include a license amendment of this type. With respect, 51.20(b) does talk about the Commission exercising special circumstances in certain cases and the contention makes the argument that these are -- that there are special circumstances here. I would respond to that twofold: one is I believe that's a matter for Commission discretion and not necessarily a matter for this licensing board. But be that as it may, even if it were within the jurisdiction of the licensing board, there is no basis for special circumstances or showing of special circumstances here. We've already talked about the severe accidents as being -- that have been postulated as being beyond the design basis for the Millstone Unit 3 spent fuel pool. We've talked about the various bases and how they don't provide any indication or any basis for concluding that the amendment makes these severe accidents any more probable than they are presently or probable at all against an objective standard.

In our papers, we certainly refer to the legal

precedent, the St. Louis Abyss for Mothers for Peace, which talks about the NEPA rule of reason. In fact, in that case, there is some discussion at 751 F2d. 1303, about special circumstances, some of the cases -- the very few cases where the Commission has decided that special circumstances exist and there are cases such as the Clinch River Breeder Reactor Plant, the Offshore Power Systems application for a floating nuclear plant, proposals that are clearly of a different kind than what the Commission had faced prior to those applications. There is nothing on that order in the present application here.

We've talked previously about the assertions of -- with respect to alternate storage. We do refer in our filings to a footnote to the Waste Confidence decision and we do believe that reflects the Commission's determination generically, that for environmental impact statement purposes, or whatever purposes really, the Commission has confidence that storage capacity in either wet or dry storage is a safe and reliable way to store fuel. We mention the generic environmental impact statement for license renewal that make similar conclusions about the environmental consequences of continued storage and existing in the spent fuel storage facilities of the very type that we're talking about here. So, there really is no basis for the conclusion that this is different or special.

And, finally, we have previously talked about the enforcement legacy and really do not believe that's a relevant consideration in this particular proceeding.

CHAIRMAN BECHHOEFER: Ms. Hodgdon? Let me ask you one question, first. Has not the Commission, either now or -- I think it's effective already, but I'm not sure, reaffirmed its waste confidence decision?

MS. HODGDON: I believe we said earlier that the Commission just recently reaffirmed that the waste confidence rule, itself, calls for it to be reaffirmed periodically. I think it used to be every five years; now, it's every 10, maybe. I'm not sure, but in any event, Mr. Repka had the Federal Register cite for the Commission's reaffirmation of that waste confidence and it was quite recently. It was December 6 --

JUDGE KELBER: Last week, if I recall.

MR. REPKA: You made me find it once. I'm not sure I can produce it again.

MS. HODGDON: December -- I believe you said December 6th, but I could be mistaken. That's about right. I have it here someplace myself, but I think it's buried under here and I'll never find it.

MR. REPKA: It really was last week, I believe. The date that's sticking in my mind is December 4th.

MS. HODGDON: Fourth? I thought it was --

MR. REPKA: Six, I'm sorry. I gave the citation anyway.

MS. HODGDON: -- 6th. I got it right, it's the 6th.

CHAIRMAN BECHHOEFER: Anyway, quite recently.

MR. REPKA: December 6th, 64 Fed.Reg. 68005.

CHAIRMAN BECHHOEFER: Now, you can proceed with whatever other response.

MS. HODGDON: I believe that we've addressed most of the points that are brought out in support of petitioners' contention that an environmental impact statement must be filed, with regard to this application. I won't go back and repeat any of that, except where some things that have been offered that's a little bit different from what was said, which caused the staff to respond as it did.

Ms. Burton has expressed disappointment in the staff for not having supported this intervention, given that these petitioners have shown errors in the application. Well, the staff did look at all those allegations and reading the staff's filing, one can see that the staff paid very serious attention to these allegations of errors in the application and the staff looked at them closely, looked at the application closely, and --

CHAIRMAN BECHHOEFER: I thought Ms. Burton was

just disappointed that the staff didn't support the environmental impact statement.

MS. HODGDON: Well, I think she --

CHAIRMAN BECHHOEFER: I thought it was limited to that, but I may be wrong.

MS. HODGDON: No, she said errors in the application.

CHAIRMAN BECHHOEFER: Oh, okay.

MS. HODGDON: And so, we looked at all these allegations closely and we simply couldn't substantiate any of them, even with looking only to the documents that were filed, not going to anything else. And so, because there was no basis provided for any of these allegations, I find it strange that Ms. Burton would think that it would be in the public interest for the NRC staff to support unsubstantiated allegations. The staff didn't do that, it's true, but that's -- we did look very closely at them and we did determine that they were baseless. And for that reason, to the extent that all of these contentions are re-recited here in support of the contention that we must file an environmental statement, there's just nothing shown here that would indicate that we would need to file an environmental statement, with regard to this action.

JUDGE KELBER: You know, I would like to point out that regardless of what we do with this particular case, you

have raised a serious issue with respect to the connection between a severe accident and operating reactor and its associated fuel storage pool. Mr. Lochbaum, in particular, but perhaps, on occasion, have frequent meetings with the Commission and I think that that's the appropriate level to take this up.

The Commission thinks that this has merit. I'm not going to say yes or no, in placement of the Commission. But the Commission is convinced that this is a serious matter. I think that they will take the steps to -- to undertake the steps to investigate it, not just for this application, but for all similar applications. I think that's the level, regardless of what we do, that you want to pursue.

MR. LOCHBAUM: May I respond to that?

JUDGE KELBER: Is a response indicated?

MR. LOCHBAUM: No, but I'd like to volunteer one anyway.

JUDGE KELBER: Yes.

MR. LOCHBAUM: Earlier today, you suggested that we use a 2.2.06 process to bring some of these generic issues out there and I read more than my share of 2.2.06 petitions; I'm sure that others will agree. But, that process really isn't a viable process. I'll be making -- I'll be meeting with the NRC staff on Wednesday afternoon to

talk about the 2.2.06 process. And the biggest problem we have is the NRC doesn't follow the rules that are on the books, and to the disadvantage of the petitioner. And more fully, there's not appeal process like there is in license amendments and everything else.

In license renewal space, the NRC has set up a five layered appeal process for the applicant, to make sure they get the final answer they like, rather than the initial no that we get in our petitions. So, the 2.2.06 process is on the books, but the way the NRC staff implements it doesn't leave much room for the public to really get a safety issue for consideration. I realize that's outside the scope of this, but I did -- that's why we don't -- haven't done that so far.

JUDGE KELBER: I was not suggesting -- I was suggesting it directly to the Commission about this in one of your frequent meetings with them.

MR. LOCHBAUM: The next one is January 10th and I'll try to put it in.

CHAIRMAN BECHHOEFER: Is there anything else further on the last contention 11?

[No response.]

CHAIRMAN BECHHOEFER: We have been finished with all of our contentions and I guess we won't have to come back tomorrow for further hearing. I would like -- before

we adjourn, I would like to mention that we have decided that the Long Island coalition has standing.

[Applause.]

CHAIRMAN BECHHOEFER: We will take note and this will be discussed in the paper we write. We'll issue a decision. We will not be prepared to rule on any contentions for probably several months and the decision I just referred to will be in that document. But, we will, also, explore whether any of the other -- any of the contentions get in. And so, I guess -- is there anything further before we adjourn that anyone would --

JUDGE KELBER: No, I would like to thank all parties for being concise and to the point, being very helpful.

CHAIRMAN BECHHOEFER: Yeah. So, we thank you for being here and we will issue a decision, as soon as we can. And we are adjourned.

[Whereupon, the pre-hearing conference was concluded.]

REPORTER'S CERTIFICATE

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

NAME OF PROCEEDING: PRE-HEARING CONFERENCE
NORTHEAST NUCLEAR POWER
STATION, UNIT NO. 3

CASE NO: 50-423-LA-3

PLACE OF PROCEEDING: New London, CT

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.

Pete Holland

Pete Holland
Official Reporter
Ann Riley & Associates, Ltd.