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**OFFICIAL TRANSCRIPT OF PROCEEDINGS**

**UNITED STATES OF AMERICA**

**NUCLEAR REGULATORY COMMISSION**

DOCKETED  
USNRC

MAY 19 AM 11:01

ADJUDICATED

**Title: PREHEARING CONFERENCE  
CAROLINA POWER & LIGHT  
COMPANY**

OFFICE  
ADJUDICATED

99 MAY 19 AM 11:01

DOCKETED  
USNRC

**Case No.: 50-400-LA  
99-762-02-LA**

**Work Order No.: ASB-300-780**

**LOCATION: Chapel Hill, NC**

**DATE: Thursday, May 13, 1999**

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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In the Matter of: :

CAROLINA POWER & LIGHT COMPANY : Docket No. 50-400-LA

(Shearon Harris Nuclear Power : ASLBP No. 99-762-02-LA

Station) :

Prehearing Conference :

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Southern Human Services Center  
Main Meeting Room  
2505 Homestead Road  
Chapel Hill, NC  
Thursday, May 13, 1999

The above-entitled matter came on for prehearing  
conference, pursuant to notice, at 10:00 a.m.

BEFORE:

- THE HONORABLE G. PAUL BOLLWERK, III,  
Judge, Chairman
- THE HONORABLE FREDERICK J. SHON, Judge
- THE HONORABLE PETER S. LAM, Judge

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1 APPEARANCES:

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1 On Behalf of the Nuclear Regulatory Commission:

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## C O N T E N T S

WITNESS	EXAMINATION
[NONE.]	

## E X H I B I T S

NUMBER	IDENTIFIED	RECEIVED
Applicant's Exhibit 1	53	53
Orange County's Exhibit 1	90	90
Applicant's Exhibit 2	129	129
Applicant's Exhibit 3	129	

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

[10:00 a.m.]

JUDGE BOLLWERK: Good morning. Today we are here to conduct an initial prehearing conference in the Carolina Power & Light Company proceeding. In response to a notice of opportunity for hearing published in the Federal Register on January 13th, 1999, found in Volume 64 of the Federal Register at pages 2,237 to 2,241, petitioner Board of Commissioners of Orange County, North Carolina has requested a hearing challenging the December 23rd, 1998 application of Carolina Power & Light Company to amend its 10 CFR Part 50 license to operate the Shearon Harris Nuclear Power Plant.

In that license amendment application, CP&L seeks authorization to add spent fuel rack modules to Spent Fuel Pools C and D and to place those pools in service.

We scheduled this prehearing conference to provide the participants with an opportunity to make oral presentations on the issues of petitioner Orange County's standing to intervene and the admissibility of its eight proffered contentions.

Before we begin hearing the parties' presentations on these matters, I would like to introduce the Board members. To my left is Frederick J. Shon. Judge Shon is a nuclear engineer and is a full-time member of the Atomic Safety and Licensing Board Panel. To my right is Dr. Peter

1 Lam. Judge Lam also is a nuclear engineer and a full-time  
2 member of the Panel. My name is Paul Bollwerk. I am an  
3 attorney and I am the Chairman of this licensing board.

4 At this point I would like to have counsel for the  
5 parties identify themselves for the record. Why don't we  
6 start with counsel for Orange County, then move to counsel  
7 for the Applicant, Carolina Power & Light, and finally to  
8 NRC Staff counsel. Ms. Curran.

9 MS. CURRAN: Good morning.

10 JUDGE BOLLWERK: Good morning. My name is Diane  
11 Curran. I with the firm of Harmon, Curran, Spielberg &  
12 Eisenberg in Washington, D.C. With me today are Dr. Gordon  
13 Thompson of the Institute for Resource and Security Studies  
14 and David Lochbaum of the Union of Concerned Scientists.

15 I would also like to introduce Dr. Alice Gordon,  
16 who is the Chair of the Orange County Board of  
17 Commissioners. I think that most of the Commissioners have  
18 other things that they need to do during the day so that you  
19 may see them coming and going but there will be  
20 Commissioners here throughout the day.

21 JUDGE BOLLWERK: All right. Mr. O'Neill.

22 MR. O'NEILL: Good morning. My name is John  
23 O'Neill. I am counsel for Carolina Power & Light Company  
24 with the law firm of Shaw, Pittman, Potts & Trowbridge in  
25 Washington, D.C. To my left is Steve Carr, who is counsel

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1 with Carolina Power & Light Company in their corporate  
2 offices. To my right is Bill Hollaway, a colleague of mine  
3 at Shaw, Pittman.

4 I would like to introduce as well -- there's a  
5 number of people here from Carolina Power & Light, but  
6 particularly Jim Scarola, who is the Vice President of the  
7 Harris Nuclear Plant; Steve Edwardas, who is the Project  
8 Manager and responsible engineer for the Used Fuel Pool  
9 Activation Project at the Harris plant; and John Caves, who  
10 is the Manager of Nuclear Regulatory Affairs with CP&L's  
11 corporate office.

12 JUDGE BOLLWERK: All right. Thank you. Ms.  
13 Zobler.

14 MS. ZOBLER: Good morning. My name is Marion  
15 Zobler. I am with the Office of General Counsel. I  
16 represent the NRC Staff, and with me today is Richard  
17 Laufer, who is the Project Manager for the Harris Nuclear  
18 Plant.

19 JUDGE BOLLWERK: All right -- so you are going  
20 solo today then?

21 MS. ZOBLER: Yes, I am.

22 JUDGE BOLLWERK: All right.

23 On behalf of the Licensing Board, I would like to  
24 express our thanks to Orange County for us to use its  
25 facility, the Southern Human Services Center, and also to

1 Mr. Thames and Mr. Fenton of the administrative staff and to  
2 Sheriff Pendergrass and his deputies for the security they  
3 provided. We have been made to feel very welcome here and  
4 all our needs have certainly been addressed, so we very much  
5 appreciate your hospitality.

6 Just so there is no misunderstanding about what we  
7 are here to do today, we have stated in several recent  
8 issuances that presentations to the Board during this  
9 prehearing conference will be limited to counsel for the  
10 participants that have just identified themselves. If  
11 petitioner Orange County subsequently is found to have  
12 standing, and to have submitted one or more litigable  
13 contentions, the Board will issue a notice of hearing that  
14 in accordance with 10 CFR Section 2.715(a) will afford  
15 members of the public an opportunity to provide written or,  
16 as appropriate, oral limited appearance statements on the  
17 issues.

18 The Board will issue a further notice outlining  
19 the times, places and conditions of participation in the  
20 event the Board provides an opportunity for oral limited  
21 appearance statements.

22 As to the order of presentation by the  
23 participants in this prehearing conference, unless counsel  
24 have some other suggestion, we would propose to begin by  
25 discussing the issue of Orange County's standing to

1 intervene which has been contested by the Applicant.  
2 Because the burden rests with the Petitioner on the issue of  
3 standing, we would first let counsel for Orange County  
4 briefly address this issue, followed by counsel for the  
5 Applicant, and finally the NRC Staff counsel.

6 The counsel for Orange County will then be  
7 afforded a short opportunity for a reply statement.

8 We then move on to the Petitioner's proposed  
9 contentions, using the same order of presentation, with  
10 initial comments by counsel for the Petitioner as the  
11 sponsor of the contentions.

12 As the participants are aware the Board asks that  
13 the Petitioner's contentions be classified in one of three  
14 subject matter areas -- technical, environmental, and  
15 miscellaneous. This grouping was not intended to limit the  
16 scope of any contention but rather to provide a framework  
17 for dealing with the same general subject matter at one  
18 time.

19 Finally, we would like to have a brief discussion  
20 toward the end of the proceeding regarding some of the  
21 administrative details involved and including the  
22 application of the hybrid hearing procedures in 10 CFR Part  
23 2, subpart (k).

24 Do any of the counsel have any comments on the  
25 order of presentation? Mr. O'Neill?

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1 MR. O'NEILL: Mr. Chairman, that is fine with me.

2 JUDGE BOLLWERK: All right. Anything? All right.

3 I should also mention, just so counsel are aware, we have  
4 read all the voluminous filings that have come in. It is  
5 not necessary to necessarily to repeat things, but we ought  
6 to get to the heart of the matter and talk about any new,  
7 emphasize any new information that you want to bring to the  
8 Board's attention.

9 I also think that it would be useful -- I know  
10 there's going to be a number of acronyms floating around,  
11 that sort of follows with this subject matter area, but if  
12 you can, the first time that you use an acronym maybe  
13 indicate in total what it means, just so that everyone will  
14 be clear on that.

15 MS. CURRAN: Judge Bollwerk?

16 JUDGE BOLLWERK: Yes.

17 MS. CURRAN: I just wanted to raise a point of  
18 clarification too. As you know, the Applicant has served a  
19 great deal of very technical material on us with its  
20 response to our contentions and I will try to address it as  
21 best as I can, but I purposefully brought the experts with  
22 me who are responsible for the declarations that support our  
23 contentions, and at some point it may be a whole lot more  
24 effective and efficient to have them address some of these  
25 very technical issues as opposed to having them whisper in

1 my ear and me garble it, so I would like to ask on occasion  
2 for permission to do that.

3 JUDGE BOLLWERK: All right. Why don't we deal  
4 with that on a case by case basis. I don't see a general  
5 problem with it, but let's see how it proceeds.

6 I guess then we are ready to begin. I should  
7 mention, I guess, in looking at the standing question, and  
8 maybe we can cut to the heart of the matter, as I, and Mr.  
9 O'Neill can correct me if I am wrong, but it seems that the  
10 basic contention is a question of the distance that Orange  
11 County is located from the facility given the application  
12 that is in front of the board. Am I misstating it or is  
13 that the basic in terms of the organizational standing?

14 MR. O'NEILL: Mr. Chairman, certainly the  
15 demonstration of injury in fact and the use of proximity to  
16 do that is one of the key questions for standing and one  
17 that we have certainly raised in our brief.

18 By the way, Mr. Carr will respond to Ms. Curran's  
19 arguments on standing.

20 JUDGE BOLLWERK: All right. All right, then, Ms.  
21 Curran, if you would like to address the issue of standing,  
22 anything you have to say on the subject?

23 MS. CURRAN: Yes. It was in my understanding from  
24 the brief that distance from the facility was the essential  
25 issue, but I will address it.

1 JUDGE BOLLWERK: All right.

2 MS. CURRAN: My understanding of CP&L's complaint  
3 with us is, first, that we hadn't alleged an organizational  
4 interest, and is belied by the text of the petition to  
5 intervene, which states that Orange County has an interest  
6 in protecting the health and welfare of its citizens, in  
7 protecting the quality of the environment in which they  
8 live.

9 CP&L also argues that we haven't demonstrated a  
10 distinct and palpable injury. We have -- we believe that we  
11 have done that in detail. Although the petition itself does  
12 not go into tremendous detail about the injury we have  
13 attached our comments on the proposed no significant hazards  
14 finding, and the affidavit or the declaration of Dr.  
15 Thompson, which goes into detail about the increased risk of  
16 a reactor accident or a spent fuel pool accident that could  
17 be caused by this proposed or exacerbated by this proposed  
18 license amendment, and of course the consequences of such an  
19 accident would extend for many, many miles around. It is  
20 commonly assumed in NRC licensing cases that the scope -- if  
21 a severe accident were to occur that the geographic area of  
22 that accident could be large, as large as 40 miles. I  
23 believe that is the standard geographic zone that is used to  
24 assume that a party has standing.

25 JUDGE BOLLWERK: We are talking about standing

1 generally in terms of reactors? We are talking about a  
2 spent fuel pool here. Is there --

3 MS. CURRAN: But we are also talking about severe  
4 accidents from the spent fuel pool that could lead to  
5 accidents of a similar magnitude as a reactor accident --  
6 hold on just a minute.

7 The area affected by a spent fuel pool accident  
8 could be comparable or greater than the area affected by a  
9 reactor accident.

10 JUDGE LAM: Is this because of the available  
11 inventory?

12 MS. CURRAN: It is because of the potential to  
13 release large quantities of radioactivity, particularly  
14 cesium, and I believe that is discussed in Dr. Thompson's  
15 declaration.

16 JUDGE LAM: So it is basically an inventory  
17 argument here.

18 MS. CURRAN: Yes.

19 JUDGE SHON: Perhaps it isn't only inventory.  
20 There's a difference in the degree of containment also, is  
21 there not?

22 MS. CURRAN: Yes. There's the equivalent  
23 containment, and it is important to bear in mind that no  
24 matter what one may think of the probability of such an  
25 accident, if it is possible the standard for standing is

1 very liberal, that the possibility could be small but if it  
2 is foreseeable, then it leads to --

3 JUDGE SHON: As I understood Dr. Thompson's  
4 arguments, also he postulates that it could have an adverse  
5 effect on the results of a reactor accident, in particular a  
6 LOCA was the thing he discussed. The presence of the  
7 additional fuel pools, and their operation, could adversely  
8 affect the response to a LOCA, which would be a reactor  
9 incident, is that not correct?

10 MS. CURRAN: Yes, that is correct.

11 [Discussion off the record.]

12 MS. CURRAN: There are a variety of scenarios in  
13 which reactor accidents could cause pool accidents and vice  
14 versa, and one of the issues that we raise in our  
15 contentions in both the technical contentions and the NEPA  
16 contentions is the potential that the addition of the third  
17 and fourth spent fuel pools will compromise the cooling  
18 system for the existing plant.

19 I would like to point out that the NRC has  
20 previously admitted state and local governments in other  
21 cases based on their sovereign authority to represent their  
22 citizens' interests, to protect their citizens' interests.  
23 One of them is Long Island Lighting Company, Shoreham  
24 Nuclear Power Station, Unit 1, LBP 77-50, 6 NRC 261 at page  
25 264, and that was in 1977.

1 JUDGE SHON: Are you talking about the current  
2 participation by a government under 2.715(c)?

3 MS. CURRAN: No, I am talking about participation  
4 under 2.714.

5 JUDGE SHON: Okay.

6 [Discussion off the record.]

7 MS. CURRAN: I just wanted to point out that the  
8 boundary of Orange County lies less than 40 miles from the  
9 Harris Nuclear Plant.

10 JUDGE BOLLWERK: I think there was a  
11 representation in Applicant's filings that it was within 15  
12 miles, is that correct, or am I?

13 MS. CURRAN: That sounds right to me.

14 MR. CARR: About 17 miles.

15 JUDGE BOLLWERK: 17? All right. Anything further  
16 you want to say on the subject?

17 MS. CURRAN: No.

18 JUDGE BOLLWERK: All right. Mr. Carr.

19 MR. CARR: Thank you, Your Honor. Good morning,  
20 Judge Bollwerk, Judge Shon, and Judge Lam, Ms. Curran, and  
21 Ms. Zobler -- welcome to North Carolina.

22 I am Steven Carr, counsel for CP&L. On the  
23 question of standing, CP&L submits that the Petitioner, the  
24 Board of Commissioners of Orange County, lack standing in  
25 this case because the petition fails to make the showing

1 that is required under the NRC rules for standing, and for  
2 hearing in this case.

3 We respectfully disagree that the rules for  
4 standing are liberal. Whether you are county government or  
5 any other kind of petitioner, the Supreme Court has laid  
6 down the test that -- and the Commission has adopted that  
7 test as enunciated in the Lujan v. Defenders of Wildlife  
8 case. The rules for standing as enunciated in that case are  
9 that you have to have more than hypothesis and possibility  
10 or speculation about the possibility of a harm. There must  
11 be a statement of concrete and particularized injury that  
12 would affect the plaintiff who complains of the action that  
13 they are challenging, that that harm must be actual or  
14 imminent, the Supreme Court says, and not conjectural or  
15 hypothetical, and there must be a causal connection between  
16 the injury that is alleged and the conduct that is  
17 complained of.

18 We believe that there are no words, there is  
19 nothing in the petition, in the filing the County has made  
20 in this case that demonstrates or that meets the test, the  
21 burden that they must meet under the Lujan case as it has  
22 been adopted by the Commission as the basis for standing  
23 under Rule 2.714.

24 We do not challenge the Board of Commissioners'  
25 right to speak or to be heard on health and safety concerns

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1 that they may rightly raise and about which they may rightly  
2 be concerned, but the law laid down by the Supreme Court in  
3 Lujan and other cases beside Lujan requires that when they  
4 speak and if they seek to be heard in an adversarial  
5 proceeding, they must say something specific that makes  
6 clear that there is a genuine issue to resolve, and we  
7 respectfully submit that they have failed to meet that  
8 burden.

9           Their arguments for standing and for intervention  
10 fail to meet the Supreme Court's test in Lujan and the NRC's  
11 rules for two fundamental reasons. One, they have not  
12 demonstrated an injury in fact, which has to do in part with  
13 proximity but not totally, and secondly, they have offered  
14 no admissible contentions.

15           The first burden that they bear on the question of  
16 standing, the essential element of standing is to  
17 demonstrate that the Board of Commissioners or some  
18 individual represented by the Board will suffer an injury in  
19 fact or harm that can be traced or linked to the action that  
20 they are challenging. The Board of Commissioners in this  
21 case has failed to identify any injury in fact to the  
22 organization, nor has the Petitioner identified a single  
23 individual within the county with a concrete and  
24 particularized injury in fact.

25           The Petitioner suggests that it has organizational

1 standing in this case because of its proximity to the Harris  
2 Plant spent fuel building, and this claim fails to meet the  
3 test of geography under the Commission's own rules and  
4 precedents.

5 The Petitioner appears to assume that within 40  
6 miles or 50 miles of the Harris plant they meet the  
7 requisite proximity test to establish their interest, but  
8 that is not so, as we outline in our brief, that is not so  
9 for spent fuel proceedings. In those cases the Commission  
10 requires close proximity to establish the requisite interest  
11 for a Petitioner to claim and establish standing in these  
12 cases.

13 As the Licensing Appeal Board said in the North  
14 Anna case, the zone of harm in spent fuel cases is much  
15 smaller and is not the same and cannot be equated with the  
16 construction permit or reactor operator licensing  
17 proceedings.

18 The Commission in Yankee Nuclear stated that under  
19 the Commission's jurisprudence proximity alone does not  
20 establish standing outside of the nuclear power reactor  
21 construction permit or operating licensing context absent an  
22 obvious potential for offsite consequences. In that case the  
23 proximity of individuals who live within 4 to 10 miles of  
24 the plant, the Yankee Rowe facility, was not enough to  
25 confer standing. Here, Orange County is much further away

1 than the 4 to 10 miles in that case and in this case there  
2 is no obvious potential for consequences in Orange County.

3 The Board of Commissioners has not -- has clearly  
4 failed to meet its burden to make that showing, that there  
5 is a potential or any potential for offsite consequences.

6 The close proximity test we believe is appropriate  
7 here and is the burden that the Board of Commissioners or  
8 any Petitioner in this case must meet. The NRC has said in  
9 numerous spent fuel cases and in the granting of exemptions  
10 for spent fuel pools in decommissioning proceedings to  
11 reduce the emergency planning zones to the site boundary  
12 that greatly reduced offsite radiological consequences of  
13 spent fuel storage are not a hazard for which an emergency  
14 planning zone is required.

15 Simply stated, 17 miles is too far away,  
16 especially in a case where there are no offsite  
17 consequences, no obvious consequences, or -- using the Lujan  
18 test -- no imminent or immediate harm that has been  
19 articulated in the filings that the Board of Commissioners  
20 has offered.

21 Secondly, the Petitioner has not standing because  
22 they haven't offered one admissible contention. As my  
23 colleagues, Mr. O'Neill and Mr. Hollaway, will outline in  
24 their remarks and as the NRC Staff has declared in its  
25 answer, there is no basis, no factual, theoretical or any

1 legal basis for the admission of any of the eight  
2 contentions proposed by the County.

3 Now this result is not surprising. As the NRC  
4 itself affirmed less than a month ago, on April 15th, in the  
5 Oconee license renewal case, spent fuel storage plans seldom  
6 raise any safety or environmental issues at all, and these  
7 are matters largely addressed generically. In Oconee the  
8 NRC cited its rules which hold that spent fuel generated in  
9 any reactor can be stored safely and without significant  
10 environmental impacts for at least 30 years beyond the  
11 licensed life for operation at its spent fuel storage basin  
12 or at either onsite or offsite independent installations.

13 The NRC in Oconee also affirmed their express  
14 ruling that the expected increase in in the volume of spent  
15 fuel from an additional 20 years of operation can be safely  
16 accommodated onsite with small environmental effects through  
17 dry or pool storage at all plants, and the Commission has  
18 defined small to be synonymous with not detectable -- no  
19 obvious offsite consequences.

20 These findings, this declaration within the last  
21 month by the NRC, applies with equal force to the case  
22 before this Board today. CP&L's plan to activate Pools C  
23 and D for the storage of old, cold, used fuel is a safe one,  
24 is a responsible plan, and is fully consistent with the  
25 NRC's requirements and the interests of public health and

1 safety. In contrast, Orange County's position to intervene  
2 challenging the plan fails to meet the burden that they must  
3 meet under Lujan and under the NRC's own rules for standing  
4 because they have shown no injury in fact. They have shown  
5 no close proximity, which they must show, and they have  
6 shown no basis in fact or in law for any further proceedings  
7 in this case.

8 This Board must conclude, therefore, that the  
9 Board of County Commissioners has no standing and this  
10 petition should be dismissed.

11 JUDGE BOLLWERK: All right. I have two questions  
12 at least.

13 The first one -- my understanding is that the  
14 facility is located, and you can clarify this for me, in  
15 both Chatham and Wake Counties or --

16 MR. CARR: It is in the southern tip of Wake  
17 County. It is close to Chatham County, yes, sir.

18 JUDGE BOLLWERK: If either Chatham or Wake  
19 Counties were here rather than Orange County, would they  
20 have standing in this proceeding?

21 MR. CARR: We believe that those persons who have,  
22 who are at the site boundary can establish the sufficiently  
23 close proximity to establish a harm, but we also believe  
24 that you must say something specific about what that harm  
25 is, so it would depend on whether Wake County or Chatham

1 County, which have not intervened in this case, offered  
2 something specific and concrete, offered some evidence or  
3 some indication that there is a specific or distinct and  
4 palpable harm that anybody in Wake County would suffer,  
5 whether they were close or not. There is no showing of that  
6 in this case certainly.

7 JUDGE BOLLWERK: What about the showings or the  
8 references Ms. Curran made to Dr. Thompson's various  
9 submissions that are attached to the petition?

10 MR. CARR: We believe that those are in the realm  
11 of possibility. They are beyond design basis scenarios,  
12 that the Commission has rejected as incredible or not  
13 plausible, and so they don't rise to the level of the tests  
14 required to show a distinct and palpable harm or an imminent  
15 or immediate certainty that the standing tests require.

16 JUDGE BOLLWERK: All right. Any other questions  
17 from anyone on the Board?

18 JUDGE SHON: No.

19 JUDGE LAM: Mr. Carr mentioned old and cold fuel.

20 MR. CARR: Yes, sir.

21 JUDGE LAM: How old is old?

22 MR. CARR: The license application will provide  
23 for no more than storage of used fuel greater than five  
24 years old.

25 JUDGE LAM: It is a minimum of five?

1 MR. CARR: At least five years old before it is  
2 put into Pools C and D.

3 JUDGE BOLLWERK: Okay. Anything further? Ms.  
4 Zobler.

5 MS. ZOBLER: Thank you, Your Honor. The NRC Staff  
6 in its filing did not oppose standing for Orange County. We  
7 believe that based on the information they did submit that  
8 it was sufficient to show standing to intervene in this  
9 proceeding, and so we did not oppose it.

10 JUDGE BOLLWERK: All right. I am taking from that  
11 what Dr. Thompson submitted did -- in fact was at least for  
12 you sufficient to establish their standing?

13 MS. ZOBLER: That's correct.

14 JUDGE BOLLWERK: All right. All right, Ms.  
15 Curran, anything further you want to say on the subject?

16 MS. CURRAN: Well, I would like to address the  
17 issue of whether we have been speculative or made  
18 implausible assertions about the possibility of an accident,  
19 and I really don't think that is true.

20 Dr. Thompson's affidavit or declaration goes into  
21 significant detail about the basis for his view that the  
22 proposed license amendment would raise the risk of an  
23 accident, not just a spent fuel pool accident but also a  
24 reactor accident, and I would refer you to paragraph 22 of  
25 his declaration, which discusses the increased possibility

1 of a design basis or severe accident in the Harris reactor  
2 that could be exacerbated by the proposed license amendment.

3 Paragraph 30, which discusses the fact that the  
4 release of Cesium-137 from the Harris pools could be  
5 significant, that the offsite radiation exposure could be an  
6 order of magnitude larger than the exposure from the  
7 Chernobyl accident.

8 Also, Paragraph 31, which discusses the fact that  
9 the spent fuel pool building is not designed to contain the  
10 radioactive isotopes during a release, and so they would be  
11 released from the building as an atmospheric plume, so we  
12 have gotten into substantial detail about our concerns  
13 regarding the risk raised by the proposed license amendment.

14 I don't believe that in any of its pronouncements  
15 regarding the safety of continued spent fuel storage that  
16 the Commission has uniformly or -- well, has comprehensively  
17 said there is no risk from spent fuel storage. Certainly we  
18 have laid out a case that this particular amendment poses  
19 unique risks because of the plan to piggyback pools C and D  
20 on the existing reactor coolant system, that the very large  
21 inventory of spent fuel creates additional risk. We have  
22 given substantial factual reasons why this particular case  
23 poses additional risk to the public.

24 The question of what constitutes distinct and  
25 palpable harm does encompass risk, and I think if it

1 would -- if it didn't then there wouldn't be any standing to  
2 intervene in an NRC licensing proceeding because most of the  
3 questions that are raised by these kinds of cases are what  
4 are the increased risks to the public against which the NRC  
5 is tasked to protect the public.

6 I would also just like to point out that in our  
7 contentions at page 31, there is a discussion of the fact  
8 that a severe pool accident is not a remote and speculative  
9 event.

10 JUDGE BOLLWERK: All right. Anything further?

11 MS. CURRAN: No.

12 JUDGE BOLLWERK: All right. You are looking at  
13 me, Mr. Carr, like you want to say something.

14 MR. CARR: Just a brief comment, Your Honor.

15 JUDGE BOLLWERK: All right. Well, I only have one  
16 rule, though, if you say something, she gets a chance to  
17 respond.

18 MR. CARR: That's fine.

19 JUDGE BOLLWERK: All right.

20 MR. CARR: I would just remind the board that the  
21 staff has made a preliminary finding of no significant  
22 hazards. What Ms. Curran was reading from were comments in  
23 Dr. Thompson's declaration that were included among comments  
24 to challenge the staff's finding of no significant hazards,  
25 which is not challengeable, obviously, in this proceeding.

1 But I wanted also to remind the board that the incremental  
2 impacts or the additional risk that we are talking about in  
3 this license amendment is 1 Mbtu of fuel, old cold fuel that  
4 increases the risk with a heat load of 1 Mbtu. That's all.

5 JUDGE BOLLWERK: All right. Ms. Curran, anything  
6 you want to say further?

7 MS. CURRAN: Well, I am not sure how btus  
8 translate into risk, I don't think it is a direct  
9 translation and we certainly have a lot to say in our  
10 contentions about the risk that is created here and our  
11 concerns about the exploitation of the margin of the  
12 capacity of the component cooling water system.

13 I would also like to point out that the proposal  
14 to limit the age of the fuel to something that is over five  
15 years is not in the proposed tech specs for this license  
16 amendment. It has been stated by the Applicant, but it  
17 isn't in any of the licensing documents, and I don't think  
18 it -- even if it were, it doesn't undermine our standing  
19 here, but I would just like to point that out.

20 JUDGE LAM: I had a question for Ms. Curran. In  
21 some of the remarks and statements Dr. Thompson made in the  
22 affidavits, can you give me a rough idea of how much of  
23 these statements are based on analysis and how much are  
24 based on expert opinion, or a combination of both?

25 For example, the statement that was made like the

1 cesium release perhaps is of the same order of magnitude as  
2 the Chernobyl accident. When I hear a statement like that,  
3 is this based on the first principle, expert opinion or  
4 analysis?

5 MS. CURRAN: It is based on analysis. That's  
6 right.

7 JUDGE LAM: Analysis?

8 MS. CURRAN: Yes.

9 JUDGE LAM: Thank you.

10 JUDGE BOLLWERK: All right. Anything further?

11 No?

12 JUDGE SHON: No.

13 MR. CARR: Judge Bollwerk, one comment.

14 JUDGE BOLLWERK: Yes.

15 MR. CARR: When you referred the Petitioner and  
16 the board to our amendment request, Enclosure 6, at page  
17 5-2, we have clearly stated that we are going to store only  
18 old fuel which has been cooled at least five years. That is  
19 Enclosure 6 at page 5-2 in our amendment request.

20 JUDGE BOLLWERK: All right. Anything further, Ms.  
21 Curran?

22 MS. CURRAN: Just to respond, that is not a  
23 technical specification.

24 JUDGE BOLLWERK: But I hear you saying it is part  
25 of your amendment request, is that correct?

1 MR. CARR: Yes, sir.

2 JUDGE BOLLWERK: All right. All right. Anything  
3 further any of the board members have on standing? No?

4 All right. Why don't we move then to the first  
5 contention. It deals with inadequate core cooling and  
6 residual heat removal. Judge Shon talked to me, there are,  
7 I guess, six different bases in this contention. Do you  
8 want to deal with them one at a time and go through each  
9 one, or would you prefer to deal with the whole contention?  
10 What is your --

11 MS. CURRAN: Well, I would like to deal with them  
12 one at a time, but there may be some overlap.

13 JUDGE BOLLWERK: All right. So each basis, you  
14 would like to deal with once, then we will have the  
15 Applicant respond, then the staff and then move back to  
16 Basis 2, is that -- or do you want to deal with the whole  
17 contention?

18 MR. O'NEILL: Mr. Chairman, rather than repeat  
19 what we said in our pleadings, we were going to take a  
20 slightly different approach in discussing this contention.  
21 So we were not planning to go marshalling down each one, but  
22 try to look at it a little bit more broadly, step back and  
23 then go through the contention a little bit more  
24 generically.

25 JUDGE BOLLWERK: Okay.

1 MR. O'NEILL: So it would not sort of fit in with  
2 what we had intended to do to take it one by one. We can do  
3 that, but we had hoped not just to repeat what we had  
4 already said.

5 JUDGE BOLLWERK: Okay.

6 MS. CURRAN: And since they are all very closely  
7 connected, so it probably would be -- even though it might  
8 take a long time, this may take a while, this contention  
9 anyway.

10 JUDGE BOLLWERK: All right. All right. Well,  
11 let's try that, we will proceed that way then, we will just  
12 deal with the contention as a whole. I will offer you an  
13 opportunity to say what you need to. We will go to the  
14 Applicant, then the staff and come back to you. All right.

15 MS. CURRAN: Okay. This contention addresses the  
16 -- the basic question here is we have a plant that was  
17 originally designed so that pools 1 and 2, the first two  
18 pools were tied to one reactor and the second two pools  
19 would be served by the cooling water system of another  
20 reactor, and, of course, the other reactor was never built.

21 So now the question is, is it safe to piggyback  
22 the cooling system of the second two pools onto the cooling  
23 system that serves the reactor plus the first two pools?

24 The question is a complex one. It involves a  
25 number of factors, and we have tried, in the basis of our

1 contention, to identify the principal factors that have to  
2 be taken into consideration in this analysis. They are all  
3 related and so it is -- you can't pull one out and say we  
4 are going to look at this completely in isolation, but each  
5 of them is somewhat independent in its concept.

6 The first basis of the contention raises the  
7 issues that it does not appear that the component cooling  
8 water system for the existing reactor is adequate to  
9 accommodate the heat loads that it may see, which is not  
10 intended to be an isolated attack on the existing reactor  
11 coolant system. We realize that this application deals with  
12 the effects of this proposed license amendment.

13 However, the cooling system has to be seen as a  
14 whole and it appears to us, based on the limited information  
15 that has been made available to us in the license  
16 application and the accompanying documents, that the  
17 addition of yet more heat load to this system may be a more  
18 significant problem that is represented here because the  
19 existing system may not be adequate to compensate for the  
20 heat loads that it may see already. Thus, adding another  
21 source of heat would not only raise questions about the  
22 ability of the system to cool pools C and D, but also would  
23 raise questions about the ability of the system to cool the  
24 reactor during an accident.

25 The existing system may be adequate, but only

1 barely and, therefore, may be pushed over the edge, in  
2 effect, by the addition of another system. And we haven't  
3 been able to get all the information that one would need to  
4 resolve this question on the merits with some finality. But  
5 what we have done is, using the documents available to us,  
6 raise a significant dispute with the Applicant about the  
7 adequacy of the cooling system as a whole to accommodate  
8 this new heat load and still perform its function of cooling  
9 the reactor.

10 So the Applicant's complaint about the first basis  
11 of the contention that we are making some kind of an  
12 impermissible attack on the cooling system, the adequacy of  
13 the cooling system for the reactor is not -- it is not a  
14 legitimate objection, because, in fact, this license  
15 amendment does threaten to compromise the integrity of the  
16 existing system.

17 JUDGE LAM: But, Ms. Curran, the way the Applicant  
18 rephrased your contention in the Basis 1, the Applicant  
19 rephrased it saying the current system is not capable of  
20 accommodating the recirc phase of design basis accident. Do  
21 you now say they rephrased it wrong, or you did not mean it  
22 that way?

23 MS. CURRAN: Let me read the language in the  
24 contention on which we rely, and that is a sentence on page  
25 7 that says, "First, design information in the final safety

1 analysis report for the Harris plant suggests that  
2 accommodating a design basis LOCA will already exploit the  
3 margin of the CCW system without any additional load from  
4 pools C and D."

5 Now, we are not asserting here that the system is  
6 -- that we know the system to be inadequate, but we are  
7 asserting that it appears that accommodating a design basis  
8 LOCA will exploit that margin, will use up whatever margin  
9 is available, that CP&L now seeks to rely on for  
10 exploitation by the spent fuel pool cooling system for C and  
11 D.

12 JUDGE LAM: Just exactly what do you mean by  
13 exploiting a margin? Do you use it up, do you exceed it or  
14 what do you mean?

15 MS. CURRAN: Would it be permissible to ask Dr.  
16 Thompson to address this question?

17 JUDGE BOLLWERK: Sure. I don't want to get too  
18 much into testifying here, but why don't you go ahead and  
19 give it shot, it might be having you whisper in her ear.

20 DR. THOMPSON: If we take a scenario of a design  
21 basis loss of coolant accident with recirculation, the  
22 principal point of concern is the sump in the containment  
23 building. It is important that the temperature of that sump  
24 does not approach the level where cavitation could occur in  
25 the recirculation pumps. So that is the real point of

1 focus.

2 Now, the heat is removed from this recirculating  
3 water by the component cooling water system and transferred  
4 to the service water system and discharged then to a heat  
5 sink. Our concern is that the addition of the loads, the  
6 heat load from pools C and D during the recirculation phase  
7 of this LOCA could raise the sump water level to the point  
8 where cavitation could be a concern. And there is a great  
9 deal of complexity behind that discussion and a lot of  
10 assumptions and a lot of modeling that properly belong in a  
11 licensing hearing and clearly not on this occasion. And we  
12 don't have anything approaching the information that we need  
13 to address this issue, and that is what I understand  
14 discovery and cross-examination are all about.

15 And so the margin of safety would be the ability  
16 of recirculation pumps to continue operating, and that plays  
17 back through the chain of heat transfer through the  
18 component cooling water system and to the service water  
19 system.

20 The issues are complex and I have tried to be  
21 concise here, and I hope that, if we go into a proceeding,  
22 that what I have said isn't construed as limiting our  
23 arguments because I have -- this is not pre-prepared  
24 testimony and I am just trying to illustrate points.

25 JUDGE SHON: Dr. Thompson, put it this way, in

1 some sense, a heat exchanger is not like a bucket. If you  
2 try to put 10 gallons of water in a five gallon bucket, all  
3 kinds of things go wrong. If you try to shove a few more  
4 million btu per hour through a heat exchange system that is  
5 designed to accommodate 100 or 160 million, it doesn't melt  
6 or spill on the floor, or do anything, it just -- the  
7 temperatures change all through the system, and the critical  
8 temperature that you have mentioned in the containment sump  
9 may simply go above the cavitation level for the containment  
10 sumps.

11 DR. THOMPSON: Exactly.

12 JUDGE SHON: But this is a very complex thing,  
13 because you can't just say you are pushing this much in and  
14 it has got to go somewhere or anything like that. You would  
15 have to analyze the entire system.

16 DR. THOMPSON: Correct.

17 JUDGE BOLLWERK: All right.

18 MS. CURRAN: Okay. The Applicant claims that our  
19 contention has to be rejected because it is supported by a  
20 mistaken understanding about what is in the FSAR. And it is  
21 a bit frustrating for us to be arguing about what is in the  
22 FSAR right now because -- I don't know if you are familiar  
23 with how FSARs go to the public document room as the  
24 amendments go in.

25 There is not a librarian there integrating the

1 amendments to a copy of the FSAR. They are all separately  
2 filed on different dates through the licensing file, so  
3 there is no integrated copy of the FSAR in the public  
4 document room, and we were unable to get one anywhere else.  
5 We asked CP&L for one, and CP&L wouldn't give us one, and so  
6 we wound up using the amendment that we knew about in the  
7 FSAR which said that the design capacity of the CCW heat  
8 exchangers was the -- I'm sorry, I am missing -- the  
9 expected heat load on the service water system was 160  
10 million btus per hour.

11 Well, now we find out from the Applicant's  
12 response that the FSAR has been amended and now the number  
13 is 272.

14 JUDGE SHON: Ms. Curran, but it is also true that  
15 the Applicant points out that that is the load on the  
16 service water system. It is not the load on the component  
17 cooling water system. And that many of the loads may be  
18 dropped during a LOCA and that sort of thing. So that,  
19 again, it is not a simple thing. It is not obvious that  
20 that is what the component cooling water system had to take  
21 out of the reactor heat removal -- residual heat removal  
22 system, isn't that correct? I mean that is one of the  
23 answers they gave, that that requirement was substantially  
24 lower than the number you had quoted.

25 DR. THOMPSON: This question of whether the

1 service water system is going to see 160 or 270 is really  
2 somewhat of a red herring. The reason that we mentioned  
3 this figure of 160 is to show that the component cooling  
4 water system under accident conditions is expected to be  
5 transferring more heat than it would be designed for in  
6 ongoing normal operation, and, therefore, a margin is being  
7 exploited. The temperature of the component cooling water  
8 system is expected to rise during LOCA recirculation to a  
9 level that would be above the normal design level. So this  
10 is simply chosen as an illustration of that point.

11 The more compelling indication to us that the  
12 margin of the CCW system is very narrow is that during the  
13 phase of the recirculation when the Applicant expects to  
14 switch on pool cooling again, the RHR heat input is down to  
15 about 80 million btus and the pools A and B are producing  
16 around 16, as I recall, is the limiting condition.

17 But the Applicant considers that adding an  
18 additional 1.1 at that point constitutes an unreviewed  
19 safety question, and that tells me that they are very close  
20 to a margin here, and that creates a concern in my mind  
21 about the temperature in the sump in the containment  
22 building at that point in time.

23 JUDGE SHON: You say adding 1-or-so million btus  
24 to the -- per hour to the 80-or-something-like-that million  
25 btus per hour makes a significant change?

1 DR. THOMPSON: Well, if the --

2 JUDGE SHON: The Applicant says -- the Applicant  
3 says that they think they can add 1.1, but they can't add  
4 15.6, which would be the expected limiting heat load of  
5 pools C and D. So they say that, you know, they have  
6 80-some from the RHR system, they have 16-or-so from pools A  
7 and B, and they don't believe they can add more than one at  
8 that point. That, to me, says that they are getting very,  
9 very close to some margin of safety.

10 If they had an ample margin in the CCW system,  
11 they could run the whole 15 million btu from pools C and D.  
12 But they don't believe they can do that, they can only  
13 handle one. And even that constitutes an unreviewed safety  
14 question. And that, to me, is a strong indication that  
15 there is a debatable technical issue here about whether or  
16 not they have gone beyond the margin of safety.

17 JUDGE LAM: Now, Dr. Thompson, when you say margin  
18 of safety, are you alleging they now would violate a tech  
19 spec? Are you saying they would now enter the limiting  
20 condition for operation, or are they entering something they  
21 -- I mean something they should not have done? Can you be  
22 more specific?

23 DR. THOMPSON: I need access to -- we need a  
24 process of discovery and cross-examination to answer that  
25 question.

1 JUDGE LAM: So your view now is based on first  
2 principle, that now adding incremental, a million btu per  
3 hour, would now exploit their safety margin, using your  
4 words?

5 DR. THOMPSON: I infer from the fact that the  
6 Applicant states that they cannot add 15 million btu, that  
7 they can only one. And furthermore, that they and the NRC  
8 staff agree that this is an unreviewed safety question, even  
9 adding that one. I infer that the margin of safety in this  
10 CCW system is very small.

11 JUDGE LAM: It is an inference you have?

12 DR. THOMPSON: That is an inference. And given  
13 access to the necessary information, I and colleagues could  
14 formulate a more precise finding and claim.

15 JUDGE LAM: Thank you.

16 JUDGE BOLLWERK: Anything further?

17 JUDGE SHON: I guess what bothers me is the vast  
18 difference, particularly when expressed as a percentage of  
19 the total system design load between and 1 and 15. I could  
20 very well understand why somebody might say 1 out of 80 we  
21 can take and forget about, but 15 out of 80 we can't. And  
22 that is -- you know, there is nothing particularly technical  
23 about that, one is close to 20 percent and one is down  
24 around a little over 1 percent. So I don't understand your  
25 inference that is saying they couldn't afford to eliminate

1 15 btu per hour means that 1 is borderline. Do you see what  
2 I mean?

3 DR. THOMPSON: Introducing -- limiting the input  
4 from pools C and D to 1 million btu raises a variety of  
5 other issues, the effectiveness of the administrative  
6 measures that will be used to ensure that. It also raises  
7 some issues about the throttling of CCW flow to the heat  
8 exchangers for pools C and D, and whether that throttling  
9 properly accounts for the effectiveness of those heat  
10 exchangers at low flow regimes, and that -- this is a  
11 concern that has come to our attention with the filing, with  
12 the material attached to the Applicant's response to our  
13 contentions. So that is not a direct response to your  
14 question but it indicates that the concerns that arise from  
15 limiting the heat load in pools C and D in this manner.

16 JUDGE SHON: I think we are probably getting too  
17 close to testimony and things like that. I would as soon  
18 drop it down.

19 JUDGE BOLLWERK: All right. What else? Are we  
20 basically done with -- or dealt Basis 1, I think?

21 JUDGE SHON: Yes.

22 JUDGE BOLLWERK: All right.

23 MS. CURRAN: Yes. And now we are on to Basis 2,  
24 which is the question of time dependence. And as I  
25 mentioned before, the initial -- if there is an accident,

1 the initial pressing need is to cool the containment with  
2 the RHR system and there is not enough cooling capacity to  
3 do the spent fuel pools at the same time. So then the  
4 question is, how can you leave the spent fuel pools alone  
5 until you open up the valves and start cooling them again?

6 In our contention, we challenged the failure of  
7 the application to discuss this issue. The Applicant  
8 responds that, indeed, they did and mention some very vague  
9 phrases in Enclosure 9. But as we demonstrate in our  
10 contention, this is -- it is a significant issue. It is a  
11 part of this rather complicated calculation of whether or  
12 not this cooling system is adequate to accommodate the  
13 additional head load, and there simply isn't any information  
14 in the application that would allow one to evaluate that.

15 Now, the Applicant has attached some calculations  
16 that it apparently performed but did not include with the  
17 application and we got this material a week ago, and, you  
18 know, we have done our best to review it in the brief time  
19 that was allotted to us, but there are a couple of  
20 observations that can be made.

21 One is that -- this is Enclosure 1, Exhibit 1, I  
22 think, to the Applicant's response. Although the cover page  
23 is signed as approved by a responsible supervisor, none of  
24 the calculation sheets in this attachment are signed by a  
25 supervisor, which it is our understanding that that is the

1 standard practice in doing calculations like this, that they  
2 get some kind of approval.

3 The second thing to notice is that this document  
4 appears to be a summary of quite a few calculations that are  
5 not attached. If you look at small Roman ii and iii, pages  
6 ii and iii, there is a list, it goes through the alphabet  
7 and beyond, of a number of calculations there were done to  
8 support the generalized assertions that are made in this  
9 attachment. And without being able to look at those  
10 calculations, it would be impossible for us to say, oh, this  
11 now resolves our concern. We need to go further and see the  
12 information.

13 Also, the information that is provided, some of it  
14 raises more concerns for us. For instance, Table 5 on page  
15 12 of 32. Pardon me for a minute.

16 [Pause.]

17 MS. CURRAN: Table 6 of this enclosure shows that  
18 for heat exchangers C and D, the Applicant would be  
19 operating with the valves 2.03 percent open, that is,  
20 throttled down to where they are almost closed. And this  
21 relates to the flow calculations in Table 5, which is on the  
22 preceding page. They need to keep the valves almost closed  
23 and they need to keep the flow at this level in order to  
24 meet the proposed tech spec for maintaining the heat load at  
25 1 million btus per hour.

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1           But this, in turn, raises a question of, if the  
2 flow is that low, can it carry the heat away, and may create  
3 the potential for administrative decisions and, therefore,  
4 administrative errors in how to maintain this -- maintain  
5 the heat load below the 1 million btu per hour ceiling, and  
6 at the same time maintain an adequate flow in the system to  
7 the RHR.

8           This is just an example of the complexity of the  
9 matter and how this additional information just raises more  
10 questions that need to be evaluated in the entire context of  
11 this issue.

12           The issue of the diesel generators, which is I  
13 believe another part of this contention, also relates to the  
14 question of the analysis of time dependency, because the  
15 analysis of what the load will be on the diesel generators  
16 depends in part on the assumptions that one makes about the  
17 timing of when the loads are imposed on the diesel  
18 generators. And, again, we simply haven't received enough  
19 information to resolve our doubts and concerns about this  
20 system at this point.

21           Well, maybe I should just go to the diesel  
22 generator issue now since --

23           JUDGE BOLLWERK: All right. That is 6, Basis 6,  
24 is that right?

25           MS. CURRAN: Yes. I will just skip around a

1 little since we are on it. In its response to Basis 6, the  
2 Applicant claims that the electrical loads on the diesel  
3 generators are analyzed in a calculation that has been  
4 attached as Exhibit 3. And we would note that this exhibit  
5 was prepared after we filed our contention. So it appears  
6 to us it was prepared in response to our contention.

7 This attachment, like Attachment 1, is more or  
8 less a summary of what was concluded about the diesel  
9 generator loads, and it just doesn't have the level of  
10 detail in it that would allow us to evaluate an issue of  
11 this complexity. For example, questions that are still  
12 outstanding are -- Will both or one pump be running? What  
13 is the worst case scenario for the sump temperature running  
14 on one diesel and then adding in the spent fuel load? And  
15 what is the timing of that calculation?

16 So that we are simply unable to resolve our  
17 concern by just looking at this enclosure to the response.

18 Going back now to the issue of -- I think we are  
19 on Basis 3.

20 JUDGE BOLLWERK: All right.

21 MS. CURRAN: And this has to do with our claim  
22 that CP&L hasn't addressed the issue of degradation of the  
23 CCW system or the RHR heat exchanger due to fouling and  
24 plugging. And we continue to maintain that this not  
25 addressed in Enclosure 9 to the application. The Applicant

1 did mention it in -- or the NRC mentioned it in a meeting  
2 summary, but it wasn't clear to us from reviewing this  
3 application that this had been taken into consideration or  
4 how it was taken in consideration, whether it was adequate.

5 Now, the Applicant has also referred to this  
6 Enclosure 3 -- no, this is Enclosure 1, right. We are  
7 looking at Exhibit 1, that supposedly resolves this issue.  
8 But, once again, this enclosure has various problems in  
9 terms of -- we don't understand or it is not clear to us  
10 whether this has been approved, whether the calculations  
11 have been finalized. And, also, this is just a summary that  
12 doesn't give us any level of detail about what was done and  
13 what was considered. In order to resolve our concerns, we  
14 need to be able to see what the assumptions were, what the  
15 methodology was that went into this.

16 Basically, you know, here is a proposal that is  
17 quite unusual, to add these two spent fuel pools to an  
18 existing reactor cooling system, and it requires a rather  
19 detailed level of analysis in order to assure that there is  
20 an adequate margin of cooling capability to handle the  
21 problem and protect the reactor and the spent fuel pools  
22 during an accident.

23 Our contention demonstrates with specificity and  
24 basis that the application has not provided the kind of  
25 information that one would need to establish that that

1 margin is adequate in this particular case.

2 Are you ready for me to go on to the next one?

3 JUDGE BOLLWERK: If you are done with Basis 3.

4 Anybody have any questions on Basis 3?

5 [No response.]

6 JUDGE BOLLWERK: All right. Go ahead. Basis 4  
7 then, I guess.

8 MS. CURRAN: The next basis for the contention  
9 questions the -- well, whether -- questions the fact that  
10 the application has not evaluated the potential for human  
11 error to contribute to an accident involving this new  
12 proposed system. And it has to be borne in mind here that  
13 the existing spent fuel cooling system for this plant  
14 doesn't rely on administrative measures like this. Because  
15 the racks are not as dense, it is not necessary to put  
16 administrative limits on the -- I'm sorry, I made a mistake.

17 [Discussion off the record.]

18 MS. CURRAN: Pardon me. Just strike the business  
19 about the racks. Because of the need to limit the heat load  
20 on the system, the Applicant is now proposing to implement  
21 administrative measures that would keep the heat at a  
22 certain level, not go over a certain level. That creates a  
23 new problem that never existed at this plant before and it  
24 demands some kind of evaluation whether it does create an  
25 unacceptable level of risk, whether it has been dealt with

1 adequately.

2           And it is important to note here that the  
3 application provides no details about the nature of the  
4 administrative measures that are going to be taken, it just  
5 says that they are going to be taken. So we have no way of  
6 evaluating whether these administrative measures are  
7 adequate. All we know is that they are proposing to take  
8 them.

9           So what our contention says is that the  
10 administrative measures need to be looked at. Are they  
11 adequate to make sure that this potential safety problem is  
12 coped with adequately?

13           The Applicant faults us for not identify the kinds  
14 of errors that could be -- could occur as a result of this.  
15 But the first point is that, previous to this, there was no  
16 potential for human error. And now, clearly, once you  
17 introduce a procedure that requires a human decision, a  
18 human calculation, simply because we are human beings, that  
19 creates a potential for human error. It creates a potential  
20 for calculational errors. It creates a potential for  
21 bookkeeping errors, memory errors. They are just the common  
22 errors that human beings are prey to.

23           The Applicant also argues that the contention has  
24 to be rejected because the county is challenging the  
25 Applicant's compliance with the tech spec. This argument

1 really doesn't make sense because we are not challenging  
2 compliance with any existing tech spec, we are challenging a  
3 proposed tech spec that would require administrative  
4 measures.

5 Our position is that it hasn't been demonstrated  
6 that that tech spec will be adequate to protect public  
7 health and safety in the event of an accident at the plant  
8 because the potential for human error has not been analyzed  
9 and it hasn't been discussed how -- what is the nature of  
10 the problem and how it is going to be addressed. So we are  
11 not challenging a tech spec here, we are challenging a  
12 proposed measure that happens to be included in a tech spec.  
13 We are certainly not challenging a regulation. There is no  
14 existing regulatory constraint that we are opposing here.

15 In effect, this proposed technical specification  
16 would loosen what is now a physical protection. So the  
17 question is, what new problems does a proposed tech spec  
18 create which alters a previous physical protection and  
19 substitutes an administrative protection in its place?

20 JUDGE BOLLWERK: So your overall argument is  
21 whenever you introduce a human element where there is some  
22 kind of a systems element that would take care of it before,  
23 that that -- unless that is fully analyzed, there is a  
24 potential problem? Is that --

25 MS. CURRAN: Well, certainly, in a circumstance

1 like this where the administrative action involves  
2 maintaining the heat load below -- at safe levels. That is  
3 an important safety function that was previously  
4 accomplished by a physical process and now is being replaced  
5 by a process that is inherently vulnerable to human  
6 mistakes. So it needs to be addressed.

7 JUDGE BOLLWERK: Does this go to your next point  
8 about -- well, I guess their response to Basis 5 is that  
9 basically we are talking about flipping a couple of  
10 switches? Is that -- we are all dealing with the same sorts  
11 of questions here? In other words, some kind of human  
12 intervention that is now necessary that wasn't there before?

13 MS. CURRAN: They are related, certainly. And,  
14 again, it a frustration that none of these measures are  
15 described in any detail at all. For instance, supposing you  
16 had a school bus with 50 seats and the school bus is -- the  
17 breaks and the suspension are certified for 50 seats and  
18 what if you suddenly found that the school bus is only  
19 certified for 25 seats, that the breaks and suspension only  
20 were for 25 seats, and the school system proposes, well, we  
21 are going to take administrative measures to ensure that  
22 only 25 students sit on the bus.

23 Well, one would want to know what are you going to  
24 do? What are the measures that you are proposing to take?  
25 Are they adequate to compensate for the obvious risk that

1 somebody is going to make a mistake? That the bus driver is  
2 not going to count right, or going to not be paying  
3 attention, or is going to be involved with some other thing  
4 and not notice what is going on?

5 It is reasonable to ask what is being done to  
6 address this potential problem.

7 With respect to Basis 5, what this boils down to  
8 is that the Applicant argues the only additional operator  
9 action required to meet the cooling needs of pools C and D  
10 is for the operators in the control room to start the pumps  
11 going, which requires them to turn some switches.

12 Well, for one thing, this isn't in the application  
13 and there is not affidavit, so we will just have to take it  
14 on faith that this the case. But for another, we don't know  
15 what else is going on in the control room at the time that  
16 these switches have to be flipped. And, as I mentioned  
17 earlier, Enclosure -- Exhibit 3 to the response -- is it  
18 Exhibit 3? I'm sorry, it is Exhibit 1 to the response  
19 creates a question as to whether there is going to be other  
20 demands on the operator that are related to meeting these  
21 heat load limitations, keeping the valves at open to a  
22 certain degree. But then the operators may have to worry  
23 that the flow is too low and the heat isn't being removed.

24 So it seems to us that this is not an easily  
25 resolved question just with the wave of the hand. We are

1 only talking about flipping two switches here. We don't  
2 know what else is being done in the control room at that  
3 time, what are the demands that are on the operators, and it  
4 appears that there is special administrative demands that  
5 have to do with maintaining the flow in these heat  
6 exchangers.

7 [Discussion off the record.]

8 MS. CURRAN: Okay. It has been pointed out to me  
9 that Exhibit 2 describes the procedure for flipping the  
10 switches. This wasn't in the license application and,  
11 again, it is not clear from looking at this what are the  
12 other demand's on the operator's time and attention, in  
13 addition to this particular procedure.

14 JUDGE SHON: Mr. Curran, they actually say  
15 considerably more though than just all you have to do is  
16 throw two switches. They also pointed out that if you  
17 didn't throw those two switches, as I understand their  
18 submission here, if you didn't throw the two switches, it  
19 would take days before the thing, the fuel pools heated up  
20 even to their administrative limit, and they would still be  
21 far away from the onset of boiling and, certainly, days,  
22 perhaps weeks away from any kind of radioactive release.  
23 The flipping of the switches only starts the fuel pool  
24 cooling going again. And, as they said, if you didn't do  
25 that, well, for days no direct hazard would result, isn't

1 this true?

2 [Discussion off the record.]

3 MS. CURRAN: It raises the question of what else  
4 is going on if you don't flip the switches. If you don't  
5 flip the switches, the temperature and the humidity are  
6 going up in the spent fuel building, which may compromise  
7 the equipment that is in that building. I don't it has been  
8 subject to analysis, but it is a concern as to what else is  
9 happening besides just the cooling of the fuel.

10 [Discussion off the record.]

11 MS. CURRAN: It also kind of second guesses the  
12 choices that have been made here. The Applicant could have  
13 chosen to delay starting these pumps up until a later time,  
14 but there must be a good reason for choosing to do it at  
15 this point. So it is part of the procedure, something that  
16 is required, something that is considered important to do.

17 Now, there maybe mitigating circumstances. It may  
18 be that the consequences won't be as great as they might.  
19 But it seems that there are considerations that go into  
20 this, that this ought to be done now, and it is a safety  
21 function.

22 JUDGE SHON: I see. I have nothing further.

23 JUDGE BOLLWERK: All right. Anything further on  
24 Contention 1?

25 MS. CURRAN: Not for the moment.

1 JUDGE BOLLWERK: All right. Mr. O'Neill, how long  
2 do you think your presentation is going to be with respect  
3 to this contention?

4 MR. O'NEILL: Judge Bollwerk, Mr. Holloway will  
5 address this contention. A half hour and 45 minutes would  
6 be our range.

7 JUDGE BOLLWERK: All right. Then why don't we go  
8 ahead and take a break now, about five minutes. So let's  
9 try to keep to that so we can move on. All right.

10 [Recess.]

11 JUDGE BOLLWERK: All right. Why don't we go back  
12 on the record then.

13 Okay. Mr. Holloway, I think it is your turn.

14 MR. O'NEILL: Mr. Chairman, before Mr. Holloway  
15 begins his response, I note that we have distributed to the  
16 board and to the parties a hard copy of a slide that was  
17 previously provided to the board and the parties  
18 electronically, and I believe to Ms. Curran also by fax,  
19 that Mr. Holloway will use in his response to Contention 1.

20 We would suggest for ease in reviewing the  
21 transcript that this marked as Applicant's Exhibit 1 and be  
22 bound into the transcript so that references to this chart  
23 will be intelligible for someone reading the transcript.

24 JUDGE BOLLWERK: All right. Any objection by any  
25 of the parties to that?

1 [No response.]

2 JUDGE BOLLWERK: All right. We will go ahead and  
3 have that then, please, bound as Applicant's Exhibit 1.

4 [Applicant's Exhibit No. 1 was  
5 marked for identification and was  
6 received into evidence.]

7 MR. O'NEILL: In addition, when Mr. Holloway  
8 refers to the copy of it at the board, the court reporter is  
9 asked that he hold the mike that is being taped, and we will  
10 do that.

11 JUDGE BOLLWERK: All right. And I take what he is  
12 going to use is basically a blowup of this document?

13 MR. O'NEILL: That's correct.

14 JUDGE BOLLWERK: All right. And I see we have a  
15 color copy here which I think I had some problems before, we  
16 don't have color printers. But that was -- all right.

17 Mr. Holloway then.

18 MR. HOLLOWAY: I'll speak loudly enough that you  
19 will be able to hear me without those microphones.

20 As you noted, Mr. Chairman, this is a blowup of  
21 what we sent before, and it is in color to help  
22 differentiate the systems. The purpose -- I am just going  
23 to go through this briefly -- is so that instead of just  
24 using words and acronyms you get some idea of the systems we  
25 are discussing.

1 JUDGE BOLLWERK: Let me just make one comment.  
2 Can you all see all right, given where he is facing? Is  
3 that a problem? I want to make sure.

4 MS. CURRAN: If you could stand to the side a  
5 little bit, it would be helpful.

6 JUDGE BOLLWERK: If it is better for you, if you  
7 want to come to the other side -- okay? Everybody all  
8 right? Good.

9 MR. HOLLAWAY: Good. The CCW system, which is  
10 what we have been talking primarily about, is the component  
11 cooling water system, and it is an intermediate system at  
12 the Harris plant and takes loads, heat loads, from several  
13 other systems, but we have been talking about a post-LOCA  
14 conditions and post-LOCA loss of cooling accident event.

15 The only loads on the CCW system, the only heat  
16 loads into that system are from the RHR and the fuel pool  
17 cooling system.

18 The RHR system is the residual heat removal system  
19 and its purpose is to put water into the reactor core and  
20 the water is heated up in the core, goes into the sump, is  
21 drawn out of the sump, and goes through the heat exchanger  
22 and the residual heat removal or RHR system puts heat in the  
23 CCW -- so that is one of the systems and this is where the  
24 heat comes from.

25 The second system putting heat into CCW during a

1 LOCA event or after a LOCA event is the FPCCS -- that is  
2 Fuel Pool Cooling and Cleanup System. I will just refer to  
3 it generally as the spent fuel pool cooling system. It  
4 takes warm water out of the spent fuel pool, goes through  
5 the heat exchanger, and rejects that heat into the component  
6 cooling water system or CCW system, takes cooled water back  
7 into the pool.

8           These are the spent fuel pools that we are talking  
9 about, Pools A, B, C and D.

10           So component cooling water picks up heat from  
11 these two systems and then it in turn rejects heat into what  
12 is called the service water system or SWS, and the service  
13 water system is the one that goes to the cooling towers or  
14 the reservoir. That is where all the heat goes, so cool  
15 water is taken out of the cooling tower or the lake, the  
16 reservoir.

17           It is run through this heat exchanger and it takes  
18 the heat rejected out of CCW, sends it back through the  
19 cooling tower or to the reservoir, depending on the  
20 operating condition.

21           CCW itself is just an intermediate loop. Its  
22 purpose is because you may have radioactivity in one of  
23 these two loops and you want to keep it out of here, so you  
24 add an intermediate loop in here to ensure that if there is  
25 a leak it will not get through to here -- that is the

1 purpose for having a separate loop here called component  
2 cooling water.

3 With that background, I will address the six bases  
4 in Contention 1. As Mr. O'Neill referred to, we have  
5 actually grouped the six bases into three basic arguments  
6 that we are making rather than stepping through each one  
7 piece by piece, which I think is actually the order that we  
8 ended up using when the Petitioner discussed it in any  
9 event.

10 The first set, which includes only Basis 1, is  
11 simply outside of the scope of this proceeding.

12 In that contention the Petitioner attempts to  
13 challenge the current licensing basis of the plant. We  
14 talked about the Petitioner's language that they read that  
15 says their first basis suggests that accommodating a design  
16 basis LOCA will already exploit the margin of the CCW system  
17 without any additional load from Pools C and D, so it is  
18 before C and D.

19 Now I will note that Ms. Curran said that the  
20 existing system may in fact be adequate but only barely and  
21 that they are not asserting that the existing system is  
22 inadequate, so that may actually address this basis. Dr.  
23 Thompson also said their principal concern is the addition  
24 of Pools C and D and to the extent this says without any  
25 additional load from Pools C and D, maybe that addresses it,

1 but I will note that the notice of opportunity for hearing  
2 sets the scope of this proceeding. It is regarding the  
3 amendment to put Pools C and D into service. It is not a  
4 general opportunity to revisit the licensing basis for the  
5 plant so this contention or at least this contention basis  
6 is simply outside of the scope of the hearing, and that is  
7 our primary reason that this basis should not be admitted.

8 We make additional discussion referring to the  
9 fact that even if it was inside the scope of the hearing  
10 that it shouldn't be admissible anyway.

11 Now aside from the information that the Petitioner  
12 used and whether it was outdated, that is really not the  
13 issue here. We have in fact pulled the correct information  
14 out of the FSAR from the current amendment and those are the  
15 numbers that are on the chart that I discussed and the chart  
16 that I passed out to you.

17 What it shows is that at the beginning of the  
18 recirculation phase of the LOCA the residual heat removal  
19 system inputs a maximum of 222.2 Mbtu per hour. At the  
20 beginning of the recirculation phase of LOCA the fuel pool  
21 cooling system is in fact isolated so the only load is the  
22 RHR system, and the service water system is designed to  
23 accommodate up to 272.6 Mbtu per hour.

24 Now again, the contention is outside the scope of  
25 the proceeding, but this is just to clarify the issue and to

1 use Judge Shon analogy that a heat exchanger is like a  
2 bucket, if that is appropriate, this is in effect saying we  
3 have a 272 gallon bucket and we are putting 222 gallons in  
4 it, so we have got plenty of room left in that bucket.

5 JUDGE SHON: I think I said it was not like a  
6 bucket.

7 [Laughter.]

8 MR. HOLLAWAY: You said something about putting 10  
9 gallons into a five-gallon container.

10 JUDGE SHON: There you clearly get an overflow.  
11 If you try to put too much heat through a heat exchanger,  
12 all that happens is the temperatures change all around  
13 through the system and nothing melts or spills or does  
14 any --

15 MR. HOLLAWAY: The simply point that I am making  
16 is, to put it in the simplest terms, the FSAR shows -- now  
17 again the FSAR is the current licensing basis -- it is  
18 before Pools C and D are added by this amendment -- shows  
19 the numbers, and 272 is greater than 222, and it is  
20 basically as simple as that. That is Basis 1, which is the  
21 first set, as I would say, which is something that is just  
22 outside the scope of the proceeding.

23 The second set are --

24 JUDGE SHON: Before you leave Basis 1, with regard  
25 to the question as to whether this could be within the scope

1 of the proceeding --

2 MR. HOLLAWAY: Yes --

3 JUDGE SHON: -- I would direct your attention to  
4 10 CFR 2.115(c). In making the determination whether to  
5 admit various issues, the discussion of the issues  
6 admissible in a subpart (k) proceeding, it says that you --  
7 I will synopsise it because it is a very long and complex  
8 sentence -- it says fundamentally that you can't admit an  
9 issue that pertains to the existing licensed facility until  
10 the change shows a substantial influence on the existing  
11 licenced facility, but as I understand the Intervenor's  
12 argument, they say that adding this much heat during a LOCA,  
13 one way or another, after the recirculation phase and  
14 storing or something, will indeed substantially influence  
15 the existing facility and its operation. Is that not  
16 correct?

17 MS. CURRAN: That's right, and may I ask you what  
18 that regulation is that you are reading? I heard it and --

19 JUDGE SHON: Oh, I'm sorry -- 2.115 --

20 JUDGE BOLLWERK: I think it is .1115 -- there are  
21 three 1s --

22 JUDGE SHON: Oh, .1115 -- I'm sorry.

23 JUDGE BOLLWERK: Subpart (k).

24 MS. CURRAN: Thank you.

25 JUDGE SHON: 2.1115 and it is (c) under that. Did

1 I leave out a 1?

2 JUDGE BOLLWERK: You left out a 1.

3 MR. HOLLOWAY: Judge Shon, I just wanted to  
4 address -- my understanding is that this section is for  
5 subpart (k) and it is for the determination of designation  
6 of issues for adjudicatory hearing, which is the decision  
7 that the Board would make should we invoke subpart (k).

8 JUDGE SHON: Yes.

9 MR. HOLLOWAY: So contentions would have to be  
10 admitted. We would invoke subpart (k) and then the question  
11 is can the issues, whatever contentions are admitted, just  
12 be decided on the basis of the oral argument under subpart  
13 (k) -- that would happen some time in the future -- or  
14 should there be further adjudicatory proceedings, so I am  
15 not sure that that standard is a contention admissibility  
16 standard.

17 In any event, I think what that says is if there  
18 is an influence of the new systems on the existing system  
19 and Basis 1, as stated by the Petitioner, talks about before  
20 any additional load from Pools C and D, so that is why -- if  
21 it was a discussion about the impact of C and D and the 1  
22 Mbtu per hour, but that is not what Basis 1 says, and in any  
23 event I think we show that the FSAR shows that it is just  
24 mistaken.

25 The second set of bases that I would like to

1 discuss are three bases which assert that the applicant did  
2 not look at something when in fact we did look at, as to  
3 Bases 2, 3 and 6.

4 Basis 2 says did not consider time dependence of  
5 heat load on CCW following LOCA, Basis 3 did not consider  
6 heat exchanger, fouling factors and tube plugging, and Basis  
7 6 did not consider additional load on the emergency diesel  
8 generators or the offsite power systems.

9 The contention as stated is fairly simple. It  
10 says you didn't look at these -- and in fact we did. I will  
11 point out that all of the calculations that we attached are  
12 in fact approved per Harris plant procedure. Signatures are  
13 on the front page. They are not put on every page at  
14 Harris, and those are the final calculations.

15 I will also note that there was some discussion  
16 about the calculation for the emergency diesel generators,  
17 E-6000, and it was completed in April of this year, but in  
18 fact the analyses supporting E-6000 or the Revision 6 to  
19 E-6000 were done in 1997. It just wasn't written up and  
20 completed until April, 1999. I don't believe that is  
21 particularly a material issue. I just wanted to bring it to  
22 your attention.

23 JUDGE LAM: Mr. Hollaway --

24 MR. HOLLAWAY: Yes, Dr. Lam?

25 JUDGE LAM: The Intervenors' counsel has said on

1 several occasions that they were frustrated because of the  
2 fact of lack of information, sufficient information for them  
3 to resolve the concern.

4 Do you have any sympathy to that argument?

5 MR. HOLLOWAY: Could you restate the last part,  
6 Dr. Lam?

7 JUDGE LAM: Do you have any sympathy to their  
8 argument that they were indeed frustrated due to lack of  
9 information?

10 MR. HOLLOWAY: I would point out that our  
11 amendment application is, I don't know, something on the  
12 order of three inches thick. It is certainly backed up by  
13 many more calculations. The Commission's regulations do not  
14 require that every calculation that is done in support of an  
15 amendment be in fact submitted on the docket with that  
16 amendment.

17 We have submitted a lot of material, and I would  
18 also point out that the Commission's rules are very clear  
19 that you can't use discovery as a basis to form your  
20 contentions so to the extent that concerns were raised, we  
21 had a concern that we don't think you looked at this issue,  
22 it is important to us, we believe it was clear that we did,  
23 but to further demonstrate that we in fact did, we have  
24 attached these additional documents that we would not  
25 otherwise, nor do we intend, to submit on the docket as part

1 of the license amendment application.

2 Their sole purpose for adding those additional  
3 documents isn't to understand everything in the document.  
4 It is to show that when we say the load on the emergency  
5 diesel generators, the additional load, was looked at, it  
6 was. It is not a discussion about the analysis, it is that  
7 their contention is simple, so I think we have provided  
8 everything that they need to do their job, and I would point  
9 out that discovery and access to everything that we have  
10 done just isn't done at this stage under the Commission's  
11 rules.

12 JUDGE LAM: Thank you.

13 MR. HOLLOWAY: Now I will address each of them  
14 briefly.

15 The first one says we did not look at time  
16 dependence of heat load on CCW following LOCA. The  
17 application says we did, and the calculation we attached  
18 shows that we did, and to the extent that they are concerned  
19 that we didn't look at it, we have shown that we did.

20 A mistaken assertion that an Applicant did not  
21 look at an issue does not form a material dispute for an  
22 admissible contention because there is really nothing  
23 further to litigate -- no reason for further inquiry to the  
24 extent that it is clear that it was looked at.

25 The CCW system, as I discussed, following a LOCA,

1 my discussion made clear that there are only two loads on  
2 CCW following a LOCA. Everything else is isolated. There  
3 are three phases of interest. Now it is implied but I will  
4 state it that the heat load from the reactor core goes down  
5 as a function of time, the same as the heat load in the  
6 spent fuel, because that is what is driving it.

7           The first phase is called safety injection. The  
8 RHR heat exchangers play no role whatsoever, so there is  
9 essentially minimal load there, but we looked at that, and  
10 it was minimal, because in fact a different system is  
11 injecting water out of a tank.

12           After the water in the tank, after the level has  
13 gone down to a certain point, the RHR heat exchangers are in  
14 fact turned on and the pool cooling system is out of the  
15 loop. It is still isolated -- so that is actually the  
16 maximum load that CCW sees following a LOCA, but when recirc  
17 phase starts you have 222.2 as your heat load, and then as  
18 time goes on that heat load goes down.

19           The fuel pool cooling system is valved back into  
20 CCW once the temperature in that cooling system gets up to  
21 the administrative limit of 137 degrees Fahrenheit. This is  
22 all in the FSAR and in the plant procedures.

23           The time -- there was some question about why 5.6  
24 hours is the number we used; 5.6 hours assumes the absolute  
25 maximum licensed heat load for Pools A and B, so the actual

1 number to get to this administrative limit is much longer  
2 and the operating procedures say when you hit the  
3 administrative limit turn on cooling the fuel pool cooling  
4 system, so the operators would in fact valve the fuel pool  
5 cooling system back in whenever it got there. We have used  
6 5.6 because that is the most pressing stage.

7           Anyway, that is the second point, that you would  
8 want to look at the load on RHR at the time you need to  
9 valve in the fuel pool cooling system, how low is the heat  
10 load still coming in from RHR, and is there enough capacity.  
11 Those are the only three times you need to look at because  
12 the heat load from the core is going down as a function of  
13 time.

14           We looked at all those. The application says we  
15 looked at the beginning of the recirculation phase and we  
16 looked at when the fuel pools are valved back in and in fact  
17 again the reason I added the calculation was to make it  
18 crystal clear that that is what was looked at.

19           The second issue regards degradation of heat  
20 exchanger performance. That is Basis 3. Again they said we  
21 did not look at this and in fact we did. In a meeting with  
22 the NRC the Applicant went on record and submitted on the  
23 docket a statement that the thermal hydraulic analysis  
24 supporting Pools C and D would include fouling factors and  
25 tube plugging and heat exchanger degradation therefrom.

1 That is not particularly surprising, since that is just a  
2 routine part of the analysis, but in fact they went on  
3 record and stated that, and in fact it was done.

4 Again the calculation is provided because it makes  
5 it very clear. It states, as we stated in our pleading, all  
6 heat exchanger thermal models use design fouling factors to  
7 ensure design basis conditions can be met even with extreme  
8 fouling conditions. So to the extent there is a question  
9 about whether we looked at this issue, we don't disagree  
10 that it is important. It is and we looked at it.

11 The third in this second set which again says that  
12 we did not look at something and we did was the emergency  
13 diesel generator electrical system loads. I will point out  
14 that the FSAR shows the margin that the emergency diesel  
15 generators have and the FSAR says calculation E-6000  
16 evaluates this, and in fact it does. The addition of Pools  
17 C and D add two 150 horsepower pumps, which equate to two  
18 125 kilowatt electrical loads -- just a standard conversion  
19 from horsepower to a kilowatt electrical motor.

20 There are two pumps added. Each one has a motor  
21 that is 125 kW, and if you look at the FSAR you will see  
22 that there is far more than 125 kW capacity on each of the  
23 emergency diesel generators, so there is really no reason to  
24 think there is inadequate capacity but again we have  
25 included the calculation just to make clear that we did look

1 at it, and I will point out that in fact even after adding  
2 Pools C and D and the two 125 kW loads, there is still an  
3 additional 182 on one and 254 kW on the emergency diesel  
4 generator even after, so there is plenty of load even now.

5 I'll also point out to the extent that offsite  
6 power was mentioned, it is not surprising that the grid  
7 provides enough for an additional 125 kilowatts, but  
8 calculation E-6000 looked at that as well, and it shows it,  
9 and that is why we attached it. To the extent there was a  
10 question -- did you look at it, it's important -- yes, it is  
11 important and we did look at it.

12 I will point out again that to the extent they  
13 said we didn't look at something and we did, there is really  
14 nothing warranting further inquiry on that particular issue.

15 The third set has two bases in it, Bases 4 and 5,  
16 and both of those bases fail the Commission's requirements  
17 because they simply lack the basis with specificity required  
18 for an admissible contention.

19 The first alleges that we should have addressed  
20 failure to comply with an administrative measure, which is  
21 the technical specification on keeping Pool C and D heat  
22 load within 1 Mbtu per hour, so it says we should have  
23 looked at failure to meet the technical specification. That  
24 is about all it says.

25 I will point out at the beginning that there is

1 currently a heat load limit on Pools A and B, just like we  
2 are talking about for C and D. It is obviously a different  
3 number and the current practice at the plant is to calculate  
4 the heat load in the current pools to assure before an  
5 additional assembly is put in there that there is enough  
6 margin from the heat load and that it will comply with the  
7 design basis, so this isn't new or different for Harris.

8 But to the extent that they have said you should  
9 have looked at your violation of a technical specification,  
10 I will point out that a technical specification is part of  
11 the operating license. It is a clear regulatory constraint  
12 and you cannot have an admissible contention by just  
13 asserting that someone should look at some violation of it.

14 To have such a contention, Petitioner must make a  
15 particularized demonstration that they have a reasonable  
16 basis to believe that we would violate this. This is the  
17 same issue that arose at an Oyster Creek proceeding several  
18 years ago. The issue there wasn't a technical  
19 specification. It was the terms of a certificate of  
20 compliance of a spent fuel cask -- similar issue. Not only  
21 did they provide no basis, they certainly don't provide a  
22 particularized demonstration that they have a reasonable  
23 basis to believe that we are going to violate this technical  
24 specification, so on that basis that lacks the required  
25 basis "with specificity."

1           The second issue of these two is Basis 5, saying  
2           that you should look at operator error in diverting CCW flow  
3           to Pools C and D. Our main reason for saying that this  
4           contention should not be admitted is the fact that there is  
5           simply no basis with specificity provided for it. We  
6           provided additional discussion to make clear why there is no  
7           problem here in any event, but it is really there is no  
8           basis for it.

9           There is a general discussion of operator errors,  
10          but it doesn't identify what these errors are. It doesn't  
11          identify what would happen if the errors were made, so there  
12          is really no basis there, and we also pointed out that,  
13          well, this might seem like a lot is going on, there is  
14          really no additional operator action in the addition of  
15          Pools C and D except for turning on the fuel pool cooling  
16          system pumps some time after the LOCA event, because they  
17          have been turned on. It is a manual action that requires  
18          turning two knobs in the control room and, as we pointed  
19          out, you don't have to do it until you get to the  
20          administrative limit. It looks like that would take at  
21          least three days to do.

22          The procedure right now says 5.6 hours is the  
23          minimum time, so we want to make sure it could be done in  
24          5.6 hours. There's no reason the two switches can't be  
25          turned 5.6 hours, but in any event they have three days

1 until they get to 137 degrees, which of course is far below  
2 212 degrees, and even if someone forgot at 5.6 hours to turn  
3 the two switches, they would have three days to do so, and  
4 if they didn't, it wouldn't go unnoticed. There are  
5 ultimately a variety of alarms that would identify, hey, you  
6 forgot to do this part of the operating procedure -- at  
7 least three different alarms.

8           There is one that says Low Flow. The procedure  
9 says turn on the pumps and there would be an alarm going on  
10 saying no flow here going through, turn on the pumps. If it  
11 went long enough, three, four days, eventually you might get  
12 a dropping in the water level. There is an alarm on Low  
13 Level -- you can see that too. There is also an alarm for  
14 high radiation, so to the extent there is whatever operator  
15 error they might be talking about, it would be readily  
16 ascertained and there's plenty of time to take care of it.

17           Again, we are not saying that that is the primary  
18 reason to reject this. It's just that there's simply no  
19 basis stated. We don't know what the operator errors are.  
20 We don't know why they are a problem from what they stated.  
21 I am just trying to add additional explanation.

22           JUDGE BOLLWERK: The two switches you are talking  
23 about are in addition to whatever switches are now there for  
24 pools A and B, is that --

25           MR. HOLLOWAY: That is correct.

1 JUDGE BOLLWERK: Okay.

2 MR. HOLLOWAY: And if you are familiar with what  
3 the control room of a reactor looks like, you have got  
4 boards with a lot of switches and there would be two more  
5 switches.

6 JUDGE LAM: Are the initial isolation of the spent  
7 fuel pool automatic?

8 MR. HOLLOWAY: The initial isolation of the  
9 non-essential header I believe is automatic, but to the  
10 extent it is not automatic, is also valved-out. And when we  
11 pointed this out in our pleading, by four switches, even if  
12 it was done manually, there are CCW lines -- you have got a  
13 supply line and a return line -- and the entire, every load  
14 on the CCW other than RHR is valved-out by that action,  
15 including A and B, including C and D, including everything  
16 else.

17 To the extent they said the amendment raises new  
18 issues, I think it goes without stating that an amendment  
19 raises new issues or it wouldn't be an amendment. Of  
20 course, it does. But just because new issues are raised  
21 doesn't automatically admit contentions. You have to show a  
22 basis under the Commission's regulations.

23 And, in summary, I have gone through these three  
24 things. We submit that Contention 1 should not be admitted  
25 in its entirety because the six bases fail either because of

1 lack of basis with specificity, or an assertion that we  
2 haven't looked at something and we did, or in the case of  
3 the first one it is simply something that is outside of the  
4 scope of the proceeding.

5 JUDGE BOLLWERK: All right. Anything further?

6 MR. HOLLOWAY: No.

7 JUDGE BOLLWERK: All right. Then, Ms. Zobler.

8 MS. ZOBLER: Thank you, Your Honor. I am not  
9 going to go through each basis they have been through, gone  
10 through and written up. I just want to talk a little bit  
11 about the Commission's contention rules. This would be  
12 applicable to all the contentions, but I will say it once  
13 and then not repeat it unless there are questions about it.

14 The Commission recently has stated the purpose the  
15 1989 rule change to the contention requirements was to focus  
16 the hearing process on real disputes susceptible to  
17 resolution in an adjudication. They said that detailed  
18 pleadings put other parties in the proceeding on notice of  
19 the Petitioner's specific grievances and gives the other  
20 parties a good idea of the claims they will be either  
21 supporting or opposing.

22 And, finally, the Commission said that these  
23 contention rules assure that the full adjudicatory hearings  
24 are triggered only by those able to proffer at least some  
25 minimal factual and legal foundations for their contentions.

1 Other considerations that are very specific to Contention 1  
2 have to do with the fact that a contention should not be  
3 admitted where an Intervenor has no facts to support its  
4 position and, instead, contemplates using discovery or  
5 cross-examination as a fishing expedition.

6 Keeping those general principles in mind, I just  
7 want to make some comments about some of the arguments that  
8 I have heard today. First of all, the need for discovery  
9 that the Petitioner has claimed that they need in order to  
10 support their Contention 1 clearly indicates that Contention  
11 1, as it stands, has no basis and would then be against the  
12 Commission's contention rules.

13 The fact that the contentions are raising issues  
14 that they claim they don't have information on also  
15 demonstrates that they have no basis on their own. They  
16 have the application, that has been available for their  
17 review, and they also have some access to the FSAR. And I  
18 want to point out that whether they have an older version or  
19 the most recent version of the FSAR is really irrelevant for  
20 the purposes that they raise it for, which is this idea that  
21 there is not a sufficient margin in the component cooling  
22 water system.

23 I think both the staff and the licensee pointed  
24 out that that contention, that basis for Contention 1 is  
25 really based on a misunderstanding of the tables in the

1 FSAR, whether they be the older version or the more recent  
2 update. The recent tables were attached to the staff's  
3 filing, so at least the Petitioners have them now and they  
4 can look at it. But, really, the numbers are the only  
5 things that have changed.

6 A couple of other points about specificity. With  
7 respect to some of the bases that Petitioners raised,  
8 talking about these administrative processes that will  
9 result or could result, failures in these processes, I would  
10 like to point out that it will be a technical specification  
11 in the license. We assume the licensee will comply with  
12 their license, a tech spec is part of the license and they  
13 are obligated to comply with their license.

14 If there are other concerns or processes the  
15 Petitioner is concerned about, we have no way of knowing  
16 what they are because all we know is a tech spec is there,  
17 and that will be the basis for maintaining the heat load on  
18 those additional pools, spent fuel pools.

19 And the same would be true on these so-called  
20 human errors or accidents. It is impossible for either  
21 party to address this issue. The Petitioner hasn't given us  
22 any idea what kinds of errors they are concerned about, and  
23 that goes back to the basis premise of the contention  
24 requirements. The parties have to know what it is the  
25 Petitioner has a grievance about so that we could address it

1 and actually make, if in fact a hearing is held, make for a  
2 very -- a more productive hearing and not one that is merely  
3 a fishing expedition.

4 Those are just some general comments. As the  
5 staff wrote in its filing, we believe that none of the bases  
6 in Contention 1 meet those criteria and, therefore, it  
7 should be dismissed. That's all.

8 JUDGE BOLLWERK: All right. Ms. Curran.

9 MS. CURRAN: Okay. I guess I just -- in  
10 addressing the Applicant's first objection, which is that our  
11 first basis is outside the scope of the contention, I would  
12 just like to go back and reiterate our fundamental point  
13 here that it is our concern that the addition of pools C and  
14 D to the component cooling water system in this nuclear  
15 plant may compromise the ability of the CCW system to serve  
16 both the cooling pools and the reactor, that, in effect,  
17 this proposed license amendment doesn't meet basic -- it  
18 compromises the ability of the licensee to meet the basic  
19 licensing requirements for the Harris Nuclear Plant because  
20 of its design. We that is an admissible concern. I guess I  
21 will leave my response at that.

22 I would just -- I would like to address the  
23 Applicant's diagram up here for just a minute. The numbers  
24 up there are -- under the CCW, it is 222-point-something,  
25 and then under the service water system, 272, and the basic

1 argument is that if you subtract 222 from 272, there is a  
2 lot left over. And I think that we have already  
3 demonstrated here that it is not that simply, and there is  
4 two black boxes up on that diagram about which there isn't  
5 any information, and those are the heat exchangers on either  
6 side of the CCW system. And that that is actually the issue  
7 that --

8 JUDGE BOLLWERK: You are talking about the one  
9 from the RHR and then the one in the SWS, is that --

10 MS. CURRAN: That's right.

11 JUDGE BOLLWERK: All right.

12 MS. CURRAN: And one of the issues that the  
13 Applicant concedes is raised by its application is -- what  
14 is the design limit of the heat exchangers? That has to be  
15 put into that system. It isn't a simple subtraction  
16 calculation.

17 [Discussion off the record.]

18 MS. CURRAN: If it were a simple subtraction  
19 calculation, then there would be not need for the 1 million  
20 btu per hour limit that is being proposed for this license  
21 amendment.

22 In a second general category of objections that  
23 covers Bases 2, 3 and 6 of our contention, CP&L argues that  
24 -- our contention is that we didn't look, that CP&L didn't  
25 look at various factors. Now CP&L has given us information

1 showing that it did look, end of inquiry.

2 It isn't enough to just say -- to come back in the  
3 response to these contentions and say, okay, we looked. We  
4 are entitled to address the issue of whether the Applicant  
5 looked adequately. The application doesn't answer that  
6 question at all. In some cases the application says not a  
7 word about whether the analysis was done. In others, the  
8 words are so vague that it really doesn't provide any useful  
9 information.

10 Now, the applicant is coming back and saying,  
11 well, here is the information that you want. (A) As I  
12 already explained previously, the information that is  
13 attached the Applicant's response is really in summary form.  
14 It doesn't get into the kind of detail that one needs to be  
15 able to look at in order to make an evaluation of this  
16 complexity.

17 Ms. Zobler argued that because we used the D word  
18 in our argument this morning, "discovery," that ipso facto,  
19 that must mean that we don't have the basis for a contention  
20 if we would like to have discovery. I try not to use that  
21 word.

22 JUDGE BOLLWERK: It is kind of a hot button word  
23 with the Commission at least.

24 [Laughter.]

25 MS. CURRAN: But I don't think it detracts from

1 the admissibility of our contention to say that in order to  
2 resolve a dispute that we have created, we are going to need  
3 to look at more information. After all, that is how a  
4 proceeding like this set up. We are required to come in and  
5 at least raise enough of a dispute that would impel  
6 reasonable minds to inquire further, and that is what is  
7 before -- that is the question before you this morning. Has  
8 Orange County raised an issue that is sufficiently specific  
9 and sufficiently well supported to cause a reasonable person  
10 to inquire further into the details of this quite  
11 complicated matter?

12 We didn't create this problem. CP&L created it.  
13 What we have done is we have gone through and systematically  
14 identified the factors that need to be looked at before this  
15 license amendment can be accepted for purposes of affirming  
16 the adequacy of the cooling system. We have identified the  
17 particular aspects. We have referenced the parts of the  
18 application that cause us to be concerned, and we don't need  
19 to do more than that at this point.

20 It is impossible for us to do more than that at  
21 this point because it is impossible to resolve our concerns  
22 without being able to look in to the detailed assumptions  
23 and the detailed methodologies that were used to reach this  
24 conclusion. And it is very circular to argue that since we  
25 didn't have access to all of these very detailed documents

1 that we shouldn't be allowed to be admitted to this  
2 proceeding.

3 Mr. Holloway said discovery comes later. As far  
4 as I can tell, CP&L would like discovery to come never.

5 [Applause.]

6 MS. CURRAN: But the point -- the question here is  
7 whether we have raised enough of a dispute to impel  
8 reasonable minds to inquire further into the large volume of  
9 information that exists on this and that needs to be  
10 evaluated.

11 JUDGE LAM: Ms. Curran.

12 MS. CURRAN: Yes.

13 JUDGE LAM: In your original pleading, Bases 2, 3  
14 and 6, the original pleading was saying the Applicant did  
15 not look. Now, are we -- just listening to what you just  
16 said, are we now to take that as what you meant then to mean  
17 now the Applicant did not adequately look?

18 MS. CURRAN: When we wrote this contention, we  
19 based this contention on Enclosure 9 to the license  
20 application. And we could not find statements in Enclosure  
21 9 that showed the Applicant had looked at these issues.

22 Maybe I should go through each one.

23 JUDGE LAM: No, no, no. That would not be  
24 necessary. I mean all I am saying is, based on what you  
25 have heard today from Mr. Holloway, in your original

1 pleading, Bases 2, 3 and 6 was basically saying the  
2 Applicant did not look. Now, Mr. Holloway's response was,  
3 yes, indeed, we did look. And then now I just heard from  
4 you saying, well, it is not a matter of looking, it is also  
5 a matter of adequacy.

6 MS. CURRAN: Well, it fails -- our point was that  
7 the application failed to address these issues. That is the  
8 language that we used. They failed to address it.

9 JUDGE LAM: Adequately.

10 MS. CURRAN: And we identified -- well, from what  
11 we could tell in the documents that we received, we couldn't  
12 tell if they had addressed it at all.

13 And I did want to point out that with respect to  
14 one of the issues, Mr. Holloway said that CP&L had  
15 committed, in a meeting with the NRC, that they would look.  
16 If you look at Enclosure 2 to our no significant hazards  
17 comments, it is a summary of this meeting. There are some  
18 viewgraphs there, and I believe the viewgraphs were prepared  
19 by CP&L. It identifies -- looking at the fouling factors,  
20 it identifies that as an option that is being considered.  
21 So we really couldn't tell from the application whether it  
22 was considered or not, and the viewgraph only said that it  
23 was an option. So our contention was that CP&L failed to  
24 address it at all.

25 Now, we have a situation where CP&L has come in

1 with some documentation that says, yes, indeed, we did  
2 address it. Now, it is our view that our contention should  
3 still stand, because our contention addressed the license  
4 application, and we are required by the Commission's  
5 regulations to address the license application. We showed  
6 that the issues are material. I don't think the licensee is  
7 denying that these issues are material. Now, they are  
8 saying, well, we addressed them, but we have created a  
9 dispute that the license application didn't address them.

10 Now, they have submitted some other documentation  
11 that wasn't part of the license application that CP&L claims  
12 now addresses this. And as I was saying before, it is not  
13 clear to us to what extent it is addressed, whether it is  
14 addressed adequately. Our position is the contention should  
15 be admitted.

16 If the board determines that the contention can't  
17 be admitted because there is some information out there  
18 somewhere where CP&L has now at least purported to address  
19 the issue and we have to now formulate a contention based on  
20 that, we would ask for an opportunity to address this  
21 information, which we got only a week ago. We have had to  
22 spend that week preparing for this pre-hearing conference  
23 and doing our best to make a general review of this  
24 voluminous information.

25 And we did want to just point out this box of

1 paper here. This is the quality assurance documentation  
2 that was submitted in response to the NRC staff's request  
3 for additional information. We got that box of paper on May  
4 3rd. Then we got the Applicant's response, which has a  
5 number of attachments, on May the 5th. And now we are here  
6 a week later.

7 Again, we think that we have created a material  
8 dispute with the Applicant on the contents of the license  
9 application. If the board disagrees with us, we would ask  
10 for an opportunity, a sufficient opportunity to address that  
11 new information.

12 JUDGE LAM: Thank you.

13 JUDGE BOLLWERK: All right.

14 MS. CURRAN: I would just also like to reemphasize  
15 that in addition to these attachments, there is a tremendous  
16 amount of backup material that is not included with those  
17 attachments, leaving us still unable to evaluate what these  
18 documents mean. And as I also illustrated earlier, the  
19 documents raise other questions for us such as the table in  
20 Exhibit 1 about the percent to which the valve is open in  
21 the heat exchanger for pools C and D and the flow rate.

22 This is complicated material and can't be  
23 thoroughly evaluated just on the face of some summary  
24 conclusions.

25 Mr. Holloway argues again that we are somehow

1 trying to challenge a technical specification in this  
2 proceeding, as though there is an existing tech spec that  
3 allows CP&L to take administrative measures that we are  
4 challenging. There is no such existing tech spec. We are  
5 talking about a proposed tech spec, a proposed measure that  
6 is supposed to ensure the safety of this operation, and we  
7 are entitled to question whether that measure is adequate.  
8 We are not questioning an existing tech spec, an existing  
9 regulation. We are not challenging anything that is in the  
10 current license there.

11 Under the current tech specs, pools A and B can be  
12 fully loaded and not exceed the heat limitations. But under  
13 the proposed license amendment, the tech specs would place a  
14 limit on what the heat load can be in the pool. That is the  
15 issue that we are driving at, whether that administrative  
16 measure is adequate, whether that has been examined, whether  
17 any potential for human error has been compensated for.

18 Mr. Holloway, and I think Ms. Zabler also,  
19 complained that we don't identify the specific human errors  
20 that we are talking about. Well, of course, the basic human  
21 error is putting fuel that is too hot into the fuel pool,  
22 that is the error. And then there is only a question of,  
23 how does that happen? And there is various ways that it can  
24 happen that seem very obvious. And it also important to  
25 point out that there is nothing in the license application

1 that describes what the administrative measures are to  
2 prevent the mistake from happening, so it is legitimate for  
3 us to question it.

4 If the licensee does not discuss the methodology  
5 that they are proposing to use, how can we critique the  
6 methodology? It doesn't seem like a fair argument.

7 Ms. Zobler also argued that, with respect to the  
8 proposed technical specification, one needs to assume that  
9 the licensee is going to comply. Again, that isn't the  
10 issue here. The issue here is whether an administrative  
11 measure is an appropriate substitute for the former physical  
12 measure that would have protected against adding too much  
13 heat to the pool.

14 It is not our understanding that there is any such  
15 administrative measure in the technical specifications for  
16 pools A and B. Contrary to what Mr. Holloway argued, pools  
17 A and B, the heat load is controlled by physical measures,  
18 not by administrative measures.

19 So the question here is whether such  
20 administrative measures are appropriate. And in other  
21 Regulatory Guides, the NRC does assume that human beings  
22 make mistakes, for instance, in the Regulatory Guide that is  
23 cited under our Contention 2 regarding criticality. So it  
24 is also reasonable to evaluate the mistakes that a human  
25 being could make under this tech spec, especially in the

1 absence of any concrete information about how those mistakes  
2 might be avoided, what the administrative measures are.

3 JUDGE BOLLWERK: Anything further?

4 MS. CURRAN: Yes, I had one more item to point  
5 out. And that is Mr. Holloway stated that Exhibit 3, which  
6 contains signatures only on the -- no Exhibit 1, pardon me  
7 -- Exhibit 1, which contains signatures only on the cover  
8 page and not on every page of the calculation pages, has  
9 been duly approved. We would just like to point out that  
10 this is -- it is inconsistent with Exhibit 3 in which the  
11 box which is at the top lefthand corner on every page, every  
12 calculation page, is signed off, approval is signed off for  
13 Exhibit 3 on every page.

14 There is a similar box on every page of Exhibit 1  
15 that hasn't been signed. Now, it raises a question for us,  
16 if the procedure was followed for Exhibit 3, what does it  
17 mean that it wasn't followed for Exhibit 1? That is all I  
18 have.

19 JUDGE BOLLWERK: All right.

20 MS. CURRAN: Excuse me one moment.

21 [Pause.]

22 MS. CURRAN: There is a tech spec which requires  
23 CP&L to follow its own procedures and it does appear that  
24 this procedure wasn't followed here, so that would mean that  
25 it involves a violation of the tech specs. It just raises a

1 question for us as to what is the status of these  
2 calculations.

3 JUDGE BOLLWERK: All right. Anything further?

4 MS. CURRAN: No.

5 JUDGE BOLLWERK: All right.

6 MR. HOLLOWAY: Mr. Chairman, I just wanted to  
7 point out one thing regarding the Applicant's discussion  
8 with the NRC and what was handed out and put on the docket.  
9 That -- and we offered the PDR accession number for that.  
10 It discusses spent fuel cooling options that were  
11 considered, including dry storage at Harris, independent  
12 cooling systems, other things that were considered in the  
13 beginning of the process. The one that has actually been  
14 implemented and this amendment concerns is the one that says  
15 following factors, two plugging limits, et cetera, will be  
16 used. I just wanted to clarify that.

17 JUDGE BOLLWERK: All right.

18 MR. HOLLOWAY: That's all.

19 JUDGE BOLLWERK: Anything you want to say about  
20 that, Ms. Curran?

21 MS. CURRAN: Well, it also says in this phrase on  
22 the viewgraph, with some changes in design assumptions,  
23 which is unclear what happened to that particular aspect of  
24 the option. We would like to know where there changes were,  
25 if this was done.

1 JUDGE BOLLWERK: Anything further you want to say  
2 on that matter?

3 MR. HOLLOWAY: No.

4 JUDGE BOLLWERK: All right. It is now about 25  
5 till 1:00. Why don't we go ahead and take about an hour  
6 lunch break. Let's reconvene at 1:45. Please be prompt.  
7 And I need to see counsel for each of the parties up here  
8 for a sidebar for one second. But we will take a break till  
9 1:45 for lunch and reconvene here.

10 [Whereupon, at 12:36 p.m., the prehearing  
11 conference was recessed, to reconvene at 1:47 p.m., this  
12 same day.]

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## A F T E R N O O N   S E S S I O N

[1:47 p.m.]

1  
2  
3           JUDGE BOLLWERK: We are here for the afternoon  
4 session and I think we are at Contention 2 at this point.

5           So, Ms. Curran, would you like to begin?

6           MS. CURRAN: All right. What we seem to have here  
7 with respect to Contention 2 is a three-way dispute about  
8 the interpretation of General Design Criterion 62. As  
9 discussed in the county's contention, it is our  
10 interpretation of GDC 62 that the general design criteria  
11 prohibit the use of administrative measures in preventing  
12 criticality. And it boils down to an interpretation of the  
13 wording in the criterion which requires that criticality in  
14 the fuel storage and handling system shall be prevented by  
15 physical systems or processes, preferably by use of  
16 geometrically safe configurations.

17           It is the county's interpretation that the word  
18 "physical" modifies both the words "systems" and  
19 "processes." And this is further clarified by the phrase,  
20 "preferably by the use of geometrically safe  
21 configurations." The Commission is interested here in  
22 physical measures.

23           The Applicant argues that the word "processes" is  
24 basically unmodified and could include any kind of  
25 processes, including administrative processes. The NRC

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1 staff agrees with our interpretation of the word  
2 "processes," that it means physical processes, but argues  
3 that control of burnup is a physical process -- or that  
4 burnup is a physical process and, therefore, control of  
5 burnup is a physical process.

6           And we would submit that we have raised here a  
7 material issue of law which governs the outcome of this  
8 question, whether or not the Applicant can rely on  
9 administrative measures in lieu of the physical measures  
10 that are currently used for spent fuel pools A and B. There  
11 are no administrative measures in the tech specs governing  
12 control of criticality for A and B. The density -- the  
13 lower density of the fuel racks takes care of the problem.

14           One could put fuel of any burnup level into the  
15 pool and it would not compromise criticality control because  
16 there are physical features in the spent fuel pool that  
17 control that, namely, the distance between the spent fuel  
18 pools in the racks and the existence of sufficient space  
19 between the assemblies for -- to put material in to prevent  
20 criticality.

21           We think this is an issue that needs to go to a  
22 hearing. It needs to be fully ventilated. What is the  
23 appropriate interpretation of the regulation? Certainly,  
24 the Applicant's position that it is clear that processes  
25 could mean anything would basically render the words

1 "physical," "systems," and "processes" meaningless. One  
2 might as well just put a common after the word "prevent"  
3 because if the Commission had meant that one could prevent  
4 criticality in any means available to the Applicant, then it  
5 wouldn't have gone on to use that phrase.

6 The staff opposes the admission of this  
7 contention. However, the staff is clearly not satisfied  
8 with the work that the Applicant has done to date on  
9 criticality prevention and on April 29th submitted to CP&L a  
10 letter requesting additional information regarding the  
11 proposed license amendment. This letter from Richard J.  
12 Laufer, Project Manager, Section 2, in Project Directorate  
13 II, Division of Licensing, Project Management, Office of  
14 Nuclear Regulation, to James Scarola, Vice President at the  
15 Shearon Harris Nuclear Power Plant, dated April 29th, 1999,  
16 has been handed out to you, and we would ask that it be  
17 included as Orange County's Ex 1 to this hearing transcript.

18 JUDGE BOLLWERK: Any objection to that from any of  
19 the parties?

20 MR. O'NEILL: No.

21 MS. ZOBLER: No, Your Honor.

22 JUDGE BOLLWERK: All right. The court reporter  
23 has a copy of the letter, I take it? All right. We will  
24 have it marked as Orange County Exhibit No. 1.

25 [Orange County Exhibit No. 1 was

1                                   marked for identification and was  
2                                   received into evidence.]

3                   MS. CURRAN: We would ask to amend the basis of  
4                   our contention to include this newly issued information  
5                   which came out just a few weeks ago, the last week of April,  
6                   which indicates that the staff has unresolved issues  
7                   regarding the criticality control for the Harris Nuclear  
8                   Plant.

9                   And more to the point, the staff is concerned  
10                  about the need to assume the -- an administrative failure in  
11                  evaluating the adequacy of criticality control in this  
12                  instance.

13                  In the basis of our contention, we also argued  
14                  that Regulatory Guide 1.13 is consistent with our  
15                  interpretation of General Design Criterion 62 because it  
16                  requires that the Applicant's nuclear criticality safety  
17                  analysis should demonstrate that criticality could not occur  
18                  without at least two unlikely independent and concurring  
19                  failures or operating limit violations. And as we  
20                  demonstrated in our contention, by misplacing a fuel  
21                  assembly into the pool -- with a high burnup fuel assembly  
22                  into the pool, the Applicant -- I'm sorry.

23                                   [Discussion off the record.]

24                   JUDGE BOLLWERK: Judge Shon says he thinks you  
25                   might mean low burnup.

1 MS. CURRAN: I'm sorry. A low burn up. A fuel  
2 assembly into the pool, the Applicant could -- yeah, that's  
3 right, I had it reversed. Low burnup assembly into the  
4 pool, the Applicant could cause a criticality event with  
5 just one error.

6 JUDGE SHON: Let me ask you, Ms. Curran, have your  
7 experts actually done a calculation that shows it goes  
8 critical if you put one low burnup in it or a zero burnup  
9 element into the pool surrounding by ones that conform to  
10 the usual technical specifications?

11 MS. CURRAN: No, that is what the NRC is asking  
12 CP&L to do in its request for information.

13 The Applicant sites a number of NRC staff  
14 decisions in which credit for burnup of fuel was allowed and  
15 argues that this supports the Applicant's interpretation of  
16 GDC 62 to the extent that our contention should be  
17 dismissed. And it is important to note that in every place  
18 in this contention in which the Applicant uses the word  
19 "Commission," the proper term is the "NRC staff." There  
20 isn't a single decision here that was made by the  
21 Commissioners of the Nuclear Regulatory Commission in their  
22 capacity as final arbiters of the meaning of their own  
23 regulations. All these decisions were made by the NRC  
24 staff.

25 So this, what all this -- these citations add up

1 to is a demonstration that the staff has consistently  
2 misapplied General Design Criterion 62. It isn't a basis  
3 for rejecting our contention.

4           There is an also argument by the Applicant that it  
5 can take credit for the use of boron in the pools. It is a  
6 little difficult to understand the gist of the argument, but  
7 it appears to be that if a low burnup assembly is mistakenly  
8 placed in the pool, that this will be compensated by the  
9 boron in the pool. But boron has to be put in the pool by a  
10 human being and it is possible that there could be a human  
11 error in which insufficient boron was introduced into the  
12 pool and thereby that would make a second error contributing  
13 to a criticality accident.

14           We are also -- in these various, rather detailed  
15 arguments about the role of boron in mitigating the  
16 criticality problem, the Applicant is getting pretty far  
17 into the merits of this contention, which is based upon the  
18 plain language of General Design Criterion 62 and the  
19 language of Reg. Guide 1.13 and we would anticipate that in  
20 an evidentiary hearing on this issue, we might get into  
21 questions like that, but it certainly isn't appropriate to  
22 resolve this issue on the merits by making some kind of  
23 analysis of the role of boron in mitigating a problem.

24           JUDGE BOLLWERK: Although I take it from what you  
25 are arguing, to get to that point, you first need to win on

1 what you describe as a legal issue, is that right?

2 MS. CURRAN: That's right.

3 JUDGE SHON: The Applicant does claim, however,  
4 that they actually did the calculation with the pool as it  
5 stands, and then criticality did not result, don't they? On  
6 page 35 of their reply. They say in the second paragraph,  
7 "Misplacement of the fuel element assembly would not cause  
8 criticality." It says an analysis was performed to confirm  
9 that misplacement of a fuel assembly would not cause  
10 criticality. So they claim they have actually calculated  
11 this. You told me a moment ago that your experts had not.

12 MS. CURRAN: Well, the NRC has also asked CP&L to  
13 do this analysis in a request for additional information  
14 that went out subsequent to this. So, to date, apparently  
15 the analysis isn't sufficient to satisfy the staff.

16 And it is also important to just bear in mind that  
17 the contention is based on General Design Criterion 62,  
18 which basically puts a limit on the amount of reliance that  
19 is allowed on analysis and requires reliance on physical  
20 measures.

21 [Discussion off the record.]

22 MS. CURRAN: I would just like to clarify, the  
23 effectiveness of the physical measures is also determined by  
24 analysis but the question of whether administrative measures  
25 can also be justified by analysis, we think has to be

1 resolved in the negative under GDC 62.

2 And it is really important to -- maybe this is the  
3 place to address the question of -- the relevance of the  
4 question -- What difference does it make if the licensee is  
5 required to comply with a clear regulatory requirement?

6 I think it also comes up with respect to  
7 Contention 3, but the question has come up here a couple of  
8 times today and just now, and I think maybe it is important  
9 to address it now. Judge Bollwerk probably remembers most  
10 clearly the Yankee Rowe case in which the question of how an  
11 Intervenor is to plead the adequacy of a decommissioning  
12 plan was addressed.

13 And the Commissioners in that case said that a  
14 contention challenging the reasonableness of a  
15 decommissioning plan's cost estimate provision should not be  
16 litigable if the only relief available would be a  
17 formalistic redraft of the plan with a new estate, and  
18 required that contentions challenging a decommissioning plan  
19 had to raise some safety significance with respect to  
20 inadequacies in the plan.

21 In a decision by the Licensing Board in that case,  
22 the board explained the unique characteristics of  
23 decommissioning plans, that they are rather vague, or the  
24 requirements for decommissioning plans are rather vague, and  
25 if the plan doesn't adequately describe some measure, it is

1 not clear what the safety significance of that is.

2 We would submit that that is really quite distinct  
3 from a situation where there is a clear regulatory  
4 requirement -- thou shalt not use administrative measures in  
5 showing compliance with this general design criterion.

6 The rationale for that requirement was decided a  
7 long time ago in promulgating the original rule and it  
8 doesn't have to be justified again by an Intervenor in a  
9 licensing hearing as to why compliance with the rule is  
10 necessary. It really amounts to challenging a regulation to  
11 require that kind of a justification.

12 As the other cases that were cited by the  
13 Applicant hold, it is sufficient for an Intervenor to come  
14 in and say here is what the regulation requires and this  
15 application doesn't comply with the requirement, period. It  
16 is not necessary to plead the significance of that  
17 noncompliance or whether it makes a difference that the  
18 Applicant doesn't comply.

19 And those two cases are Duke Power Company,  
20 Catawba Nuclear Station, Units 1 and 2, LBP 82-116, 16 NRC  
21 1937, the year is 1982 and Public Service Company of New  
22 Hampshire, Seabrook Station, Units 1 and 2, LBP 82-106, 16  
23 NRC 1649, the year is 1982. And those cases make it clear  
24 that it is sufficient to allege noncompliance with the  
25 regulatory requirement if provided with specific -- with

1 specificity and basis in order to gain admission of a  
2 contention.

3           So, in this case, for example, if the Applicant  
4 has done an analysis that says it doesn't matter whether we  
5 comply with that general design criterion, that amounts to a  
6 challenge to the regulations. It is not a legitimate  
7 justification for dismissing a contention.

8           I don't have anything more at the moment.

9           JUDGE BOLLWERK: All right. Mr. O'Neill or Mr.  
10 Holloway.

11           MR. O'NEILL: Mr. Holloway will address Contention  
12 2.

13           JUDGE BOLLWERK: All right.

14           MR. HOLLOWAY: With respect to Contention 2, as  
15 Ms. Curran has said, she has essentially raised an issue of  
16 law and that issue is whether or not credit for burnup can  
17 be used for criticality control in spent fuel pools under  
18 the Commission's regulations. This isn't about a soluble  
19 boron calculation, I will discuss that later. The  
20 contention she has raised is -- Is it legal under the  
21 Commission's regulations to use credit for burnup?

22           She has discussed as a three-way interpretation of  
23 our interpretation of GDC 62, their interpretation, the  
24 staff's interpretation, and I would point out that it is not  
25 an issue of what we think or what the Petitioner thinks, but

1 what has the Commission said. And the Commission has  
2 addressed this issue on a number of occasions.

3 When I discussed the textual interpretation of  
4 General Design Criterion 62, it was to point out that this  
5 isn't a matter where the plain text makes it clear that  
6 physical processes may be used, it simply doesn't say that.  
7 What it may mean may be ambiguous. It may be, as we  
8 describe it, it says processes. The dictionary says that  
9 means "steps in written procedures." Reg. Guide 1.13 talks  
10 about a process involving written procedures, that is all  
11 consistent.

12 However, most importantly is that the Commission  
13 has addressed this exact issue and on numerous occasions, I  
14 think put four examples in, but there are many more, the  
15 Commission has determined that credit for burnup to prevent  
16 criticality in spent fuel pools is permitted under the  
17 Commission's regulations and, as explicitly stated, that it  
18 is consistent with General Design Criterion 62. So we know  
19 what the Commission says about it, and they discuss burnup  
20 and enrichment curves, precisely what we are talking about  
21 using here.

22 So it is really not a discussion about textual  
23 interpretation, that is more for background. It is really a  
24 discussion of what the Commission has said. To the extent  
25 they have said it is unlawful as a matter of law, I think

1 that goes against what the Commission has determined the  
2 regulation allows and they require this Applicant, as  
3 opposed to others, to use some other methodology other than  
4 credit for burnup, and credit for burnup is allowed. So, in  
5 effect, they would be advocating stricter requirements than  
6 the Commission's regulations allow.

7 I will point out that the amendments I have  
8 discussed -- one I have discussed in the pleading is the  
9 Waterford case, and I will read you just a couple of  
10 sentences off of the issuance of the amendment. It starts  
11 out Mr. Dugger, Vice President, Operations, Entergy, "The  
12 Commission has issued the enclosed amendment, Number 44," et  
13 cetera, et cetera. Several paragraphs later it says, "A  
14 copy of our related safety evaluation is also enclosed."

15 It is certainly true that the NRC staff develops  
16 the calculations and supporting analyses that go into the  
17 Commission's granting of an amendment, but pursuant to the  
18 Atomic Energy Act, only the Commission has the authority to  
19 in fact grant operating licenses or amendments to operating  
20 licenses, hence, that is why it says the Commission has  
21 enclosed -- issued the enclosed amendment.

22 So the Commission has said credit for burnup is  
23 lawful and they are attempting to challenge what the  
24 Commission has said as a matter of law.

25 The second issue they say is that Reg. Guide 1.13

1 says that you cannot have criticality in the event of a  
2 single failure, and they discuss a misplaced fuel assembly,  
3 "Therefore Reg. Guide 1.13 proscribes use of credit for  
4 burnup." Now, I will point out that Reg. Guide 1.13 has  
5 many pages discussing how one implements credit for burnup,  
6 so it is a bit unusual to say that it proscribes it.

7 But to the extent that the basis for this is that  
8 a misplaced fuel assembly would violate the single failure  
9 criterion, the Commission has also addressed this very  
10 clearly in the Commission's related safety evaluations for  
11 these, as the Commission states, there are passages saying  
12 that -- on this very specific issue, that in the event of a  
13 misplaced fuel assembly, that could be a single failure that  
14 could cause criticality, but because there is soluble boron  
15 in the pool water, the misplacing of a fuel assembly will  
16 not cause criticality.

17 So this contention is about the law. Does the  
18 law, the Commission's regulations allow credit for burnup to  
19 be used? And the Commission is very clear that it does,  
20 that it doesn't violate the single failure criterion in the  
21 event of a misplaced fuel assembly. So, again, it is not  
22 about our interpretation of these things.

23 Now, --

24 JUDGE BOLLWERK: Wait a minute. A question. But  
25 you are not, I take it -- Ms. Curran made the statement that

1 when you say the Commission, these are staff documents, is  
2 that correct?

3 MR. HOLLOWAY: That -- it is not staff document,  
4 that is correct. Was it initially authored by the staff?  
5 That is correct. But in issuing the amendment, it is right  
6 here. It says the Commission has issued, it doesn't say the  
7 staff has issued. The staff doesn't have the authority to  
8 issue license amendments. The staff always does analyses  
9 that go to the Commission.

10 JUDGE BOLLWERK: Well, they act according to  
11 delegated authority from the Commission, that's correct.

12 MR. HOLLOWAY: Yes.

13 JUDGE BOLLWERK: But -- well, as do we. Now, if I  
14 -- if this Licensing Board says something, does that mean  
15 the Commission has said it? I think there is a question  
16 about that. Maybe Ms. Zobler can tell us about that as  
17 well.

18 MR. HOLLOWAY: But I would said, Mr. Chairman,  
19 when your initial order comes out, it doesn't say the  
20 Commission has issued the following order, it says the  
21 Licensing Board has issued the following order. Someone is  
22 welcome to appeal that the Commission according to the  
23 Commission's procedure. But in the issuance -- in the event  
24 of license amendments, it doesn't say the staff has issued,  
25 it says the Commission has issued. It was the Commission's

1 determination.

2 Now, that is the contention as stated. Ms. Curran  
3 has also raised the issue of a recent RAI, it is dated April  
4 29th. In fact, she had it bound to the record, asking for  
5 submissions from the Applicant by I think June 30th. In the  
6 RAI -- recall, I said that when an application is submitted,  
7 all the calculations supporting that application are not  
8 with it. They are not required to be with it. In the  
9 application, there is a statement that says, "The use of the  
10 high density Region II racks has been shown to be acceptable  
11 based on the analysis performed by Holtec, International."

12 Now, those analyses include the soluble boron  
13 calculation that was done. The staff has issued an RAI  
14 saying I would like to see the calculation, please submit  
15 it. That doesn't say that the staff is saying they don't  
16 believe that this can be done as a matter of law or they  
17 have some question as to whether it is correct. It just  
18 says we want to see the calculation.

19 But more importantly, regarding NRC RAIs, in the  
20 Calvert Cliffs licensing proceeding just recently, the  
21 Petitioner attempted to use a similar argument to say an RAI  
22 is out there, therefore, I need more time or I would like to  
23 change my contention, and the board there said, "Where the  
24 Petitioner concludes that a staff RAI or Applicant RAI  
25 raises a question about adequacy of the application, the

1 Petitioner is free to posit that issue in a newer amended  
2 contention that complies with the late filing standards of  
3 Section 2.714."

4 MR. HOLLAWAY: What I'm hearing is, this is a  
5 basically fundamentally changed contention - not that you  
6 can't do it as a matter of law, but, oh, now, well yeah, you  
7 can do it as a matter of law, but they didn't do it right.  
8 That's a different contention, a fundamentally different  
9 contention.

10 And I would say that the application discusses in  
11 some length, hence the contention, the burn up and  
12 enrichment curves that were used, the burn-up credit, how  
13 the process is done, etc. It's in the application. To the  
14 extent that they felt it wasn't done right, they certainly  
15 could have challenged it.

16 That's a fundamentally changed contention, and I  
17 would also add that just because the Staff has asked for  
18 something, does not automatically create a contention.  
19 That's just a request from the Staff for some additional  
20 information.

21 I would also add two other side notes. Soluble  
22 boron is a physical measure, to the extent that there's  
23 concern about it. Boron is a physical measure and, as we  
24 stated, it has been analyzed and has been shown that there's  
25 sufficient boron in the Harris pools, such that criticality

1 would not occur. In fact, it's not just sufficient; there's  
2 a lot more than sufficient. 400 required; 2000 minimum in  
3 the pools at all times.

4 So that issue, which really doesn't go to their  
5 legal contention, was just added to clarify that there's  
6 really no problem here. But the contention that they raised  
7 is a legal issue, is a matter of law - one can't use credit  
8 for burn-up. It's very clear, and in fact you can use  
9 credit for burn-up.

10 It's not an argument between us and the  
11 petitioner; it's an issue of what do the Commission's  
12 regulations allow, to the extent that they would say that  
13 CP&L, unlike every other plant in the country, can't use  
14 credit for burn-up. They're saying we have to use other  
15 measures. If they advocate we have to meet stricter  
16 requirements than the regulations require, that's an  
17 impermissible collateral attack on the regulations, and it's  
18 not permitted under 10 C.F.R. 2.758.

19 MR. BOLLWERK: Thank you. Anything further? Ms.  
20 Zobler, then.

21 MS. ZOBLER: Thank you. I'd just like to make a  
22 couple of comments, first of all, about general design  
23 criteria in general. They've been characterized as a strict  
24 regulation; in fact, the Commission has recognized that all  
25 the general design criteria are just that, they're general

1 criteria. And although an applicant has to comply with  
2 them, they're not specific so that you can say absolutely,  
3 this is the only way you can conform with what we call GDCs.

4 I'd also like to say, I don't think there really  
5 is a disagreement here among the parties of what the GDC 62  
6 says. What the applicant has stated is that the licensee  
7 proposed to use administrative controls. And then they talk  
8 about taking credit for the higher burn-up fuel.

9 But the higher burn-up fuel itself is not  
10 administrative control. It's a characteristic of the fuel.  
11 And that certainly is something a licensee is allowed under  
12 the Staff's guidance to take credit for. It is the Staff's  
13 view, based on the Reg. Guide, that one way to conform with  
14 GDC 62 is to take credit for the higher burn-up fuel.

15 The Petitioner has mentioned wanting to add an  
16 additional basis to this contention to - if it's something  
17 to do with just piggybacking onto the Staff's request for  
18 additional information, it is correct that the Commission  
19 has recently, in the Calvert Cliffs proceeding, said that  
20 it's not sufficient merely to piggyback onto a Staff request  
21 for additional information.

22 The request was for more information; it does not  
23 indicate that, at least at this point, the licensee's  
24 proposal's in any way inadequate. So to merely reference  
25 the fact that the Staff would like to see some of the

1 criticality analysis doesn't indicate that there is a  
2 problem with the application itself, or the proposal.

3 Other than that, going back to my earlier  
4 discussion about what the Commission's contentions will  
5 require, clearly contention two does not meet the basis  
6 requirement.

7 MR. BOLLWERK: Anything that you want to add on  
8 Mr. Hollaway's point about the Commission having said that  
9 burn-up can be used as opposed to a document that's been  
10 issued by the Staff?

11 MR. HOLLAWAY: I think Your Honor was correct that  
12 the Staff is acting under the delegating authority of the  
13 Commission. It is somewhat different than when a licensing  
14 board issues an opinion. That's a clear separation of the  
15 roles of the Staff when it acts, or when the Commission acts  
16 in its adjudicatory function, and when it acts in its  
17 supervisory function.

18 Presumably if the Commission felt that there was a  
19 problem with the way the Staff was applying GDC 62, they  
20 include in their supervisory role, issue some kind of Staff  
21 guidance, a Staff requirements memorandum requesting that  
22 the Staff maybe revisit its approach. But that's, as far as  
23 I know, has not happened with respect to the GDC-62.

24 MR. BOLLWERK: Although arguably, the Commission  
25 can do the same thing with a Licensing Board ruling. It can

1 reach down and change it or modify it in some way, if it  
2 believes it's appropriate.

3 MS. ZOBLER: That's correct, Your Honor. In fact,  
4 a Licensing Board decision, if not appealed, not appealed to  
5 the Commission, has, is the decision in the case, and that's  
6 what's controlling in that particular case.

7 MR. BOLLWERK: True, although again I guess my  
8 point was that the Commission has supervisory authority over  
9 us, which it from time to time exercises. It may come down  
10 and deal with matters that are before us, as they could do  
11 with the Staff, obviously.

12 MS. ZOBLER: That's correct. That's exactly  
13 correct.

14 MR. BOLLWERK: Right. All right, anything  
15 further?

16 MS. ZOBLER: No. That was it.

17 MR. LAM: Ms. Zabler?

18 MR. BOLLWERK: Wait, I'm sorry.

19 MR. LAM: Ms. Zabler, the - Ms. Curran had  
20 indicated that under GDC 62, "processes" means physical  
21 processes. What is your view?

22 MS. ZOBLER: I think the Staff's view has to be,  
23 is in the Reg. Guide, which does allow the credit for the  
24 higher burn-up fuel, and also does reference administrative  
25 controls on maintaining the correct level of burn-up, if

1 that's what the Licensee's proposing to take credit for.

2 So, the answer is that GDC-62 allows for the  
3 administrative controls on the higher burn-up fuel. Does  
4 that answer your question?

5 MR. LAM: Yes and no. But still, go back to the  
6 dispute I'm hearing from - I mean, between Mr. Hollaway and  
7 Ms. Curran, there's this textual interpretation of  
8 processes. Does it mean physical processes or otherwise? I  
9 hear you loud and clear about, you know, what's allowed and  
10 what is not allowable under the Staff's practice.

11 But by just reading GDC-62, it says physical  
12 systems or processes. In the very beginning, Ms. Curran  
13 well, "physical systems or processes" means physical systems  
14 or physical processes. I think that's one of central  
15 arguments that I'm hearing from Ms. Curran. And I am  
16 interested in the Staff's view on that interpretation.

17 MS. ZOBLER: Again - and I'm not trying to answer  
18 your question, Your Honor. I can't answer your question. I  
19 don't know because when the Staff reviews, for the most  
20 part, these proposed spent fuel pool expansions, they rely  
21 on the guidance in the Reg. Guide. And the Reg. Guide does  
22 allow for some kind of administrative controls in connection  
23 with the higher burn-up fuel. I can't say what the Staff  
24 would do or how they view a proposal that would look somehow  
25 different from the Reg. Guide, and what they would do in

1 those cases.

2 MR. LAM: So, perhaps you are saying it really  
3 doesn't matter what the interpretation of that word is,  
4 other than burn-up. It's permissible.

5 MS. ZOBLER: That's correct, Your Honor. For the  
6 purposes of the application before us, burn-up would be  
7 permissible.

8 MR. LAM: Thank you.

9 MR. BOLLWERK: Ms. Curran.

10 MS. CURRAN: I'd just like to read from the  
11 Staff's response to our contention, which I think answers  
12 your question in part, Judge Lam.

13 On page 11, the Staff says, "The burn-up of fuel,  
14 as well as its enrichment value, is itself a physical  
15 process which affects criticality." And it also says,  
16 "GDC-62 provides that criticality shall be prevented by  
17 physical systems or processes."

18 So, in the response to our contentions, the Staff  
19 appeared to be agreeing with our interpretation of GDC-62,  
20 that the word "process" means a physical process. They just  
21 disagree with us as to what control of burn-up constitutes.  
22 And that's distinct from the Applicant's position, which is  
23 that GDC, the language of GDC-62, will they interpret the  
24 word "processes" not to be modified by the word physical.  
25 And then they also cite a whole lot of NRC Staff decisions,

1 characterizing them as Commission decision, which they would  
2 argue override our interpretation of the general design  
3 criteria. And I'd just like to talk for a minute about what  
4 is the significance of the fact that the Commission signed  
5 off on this license.

6 Of course, all licenses are issued by the  
7 Commission; the Commission is responsible for them and must  
8 approve them. But it would not be appropriate on such a  
9 generalistic delegation, approval that results from  
10 delegation of authority to the staff as some kind of  
11 decision making precedent that the Licensing Board should  
12 rely on.

13 It has to be remembered that the Staff is a party  
14 to this case. The Staff's decision doesn't have any more  
15 sway in this proceeding than the Applicants or the  
16 Intervenors. The Staff is another party. And all of these  
17 specific decisions about how to interpret GDC-62 in the Reg.  
18 Guide were made by the Staff.

19 The Commission may have ultimately approved the  
20 issuance of the license, but there's no indication that the  
21 Commission had any involvement in the interpretation of this  
22 general design criteria.

23 And this is a relatively new issue. When the  
24 general design criteria were written, it was in the late  
25 1960s - 1967. It wasn't an issue then about high burn-up or

1 low burn-up. This is something that has to be determined  
2 now based on the language of the general design criteria,  
3 and one can't infer some intention to include, to take  
4 credit for high burn-up fuel from this general criteria.  
5 One has to interpret the language of the regulation as it's  
6 written and apply it to the facts.

7 MR. SHON: I'd like to have clarification of a  
8 couple of points regarding this before we stop.

9 First of all, I hear two things about this  
10 interpretation of GDC-62. First of all, I hear from the  
11 Applicant and from the Staff that there have been several  
12 cases where this has arisen as an issue. And although the  
13 cases were not before a licensing board, or that issue was  
14 not before it, and did not go up the chain and come before  
15 the Commission in its adjudicatory form, nevertheless, the  
16 Commission's process issued those license amendments and  
17 that was the Commission's final decision on the license  
18 amendment.

19 Therefore, they're precedential and they mean that  
20 the Commission has sanctioned the use of credit for burn-up  
21 in prevention of criticality. That's one thing. The  
22 argument there, I think, is that if the Commission didn't  
23 like it, it would have stopped the people from doing.

24 Then we have this other thing; we have Reg. Guide  
25 1.13. I've read the Reg. Guide myself, and I am certain

1 that there is rather a good bit of material in that Reg.  
2 Guide that tells what you've got to do to take credit for  
3 burn-up. So it seems that the Reg. Guide says you can take  
4 credit for burn-up.

5 We haven't discussed much though, what influence  
6 the Commission itself, as a Commission, has on the issuance  
7 of Reg. Guides. Could you clear that up for us a bit, Ms.  
8 Zabler?

9 MS. ZOBLER: Oh --

10 MR. SHON: When - the Applicant has said, when a  
11 license comes out, that's the Commission's action, and  
12 that's the Commission's word -- boom. When a Reg. Guide  
13 comes out, is that the Commission's word? Does it have as  
14 much force as a previously issued license?

15 MS. ZOBLER: A Reg. Guide is guidance. It's  
16 certainly not a regulation. So - and that is correct. It  
17 really, it's the Staff's view and, by implication, the  
18 Commission's view of one way a requirement of GDC can be  
19 met. It's not the only way, nor is it dispositive, in that  
20 if a petitioner were able to show why, in a particular case,  
21 meeting the contention requirements, it's not sufficient, I  
22 think you could probably challenge in that particular case.

23 It is binding - a Reg. Guide, once it's final, is  
24 binding on the Staff. Meaning that if, as long as a  
25 licensee or applicant meets all of the guidance and criteria

1 in a Reg. Guide, the Staff then is obligated to approve the  
2 license, application amendment, or whatever the proposed  
3 change would be.

4 MR. SHON: What about the draft Reg. Guide?

5 [Laughter.]

6 MS. ZOBLER: But it is the Staff's view on one way  
7 to meet the criteria and regulations.

8 MR. BOLLWERK: They're called Staff regulatory  
9 guides.

10 MS. ZOBLER: Right. That's correct.

11 MR. SHON: I guess that's it then. They are  
12 simply staff documents.

13 MS. ZOBLER: That's correct. They're binding on  
14 the Staff.

15 MR. BOLLWERK: All right. Anything further? Ms.  
16 Curran, you may have had something else you wanted to say?

17 MS. CURRAN: I just wanted to let you know that on  
18 page 12 of our contentions, we did provide legal citations  
19 to the, to the very well established holding that regulatory  
20 guides are staff documents and that they don't, they don't  
21 hold any particular weight. And even less, draft regulatory  
22 guides, which this particular one is.

23 MR. BOLLWERK: Anything further on this  
24 contention?

25 MS. CURRAN: I do have a few more things.

1 MR. BOLLWERK: All right.

2 MS. CURRAN: The question has come up here whether  
3 boron is a physical measure. In our view, boron itself may  
4 be physical, but someone has to put it into the spent fuel  
5 pools. So it involves an administrative measure and can't  
6 be relied on under GDC-62. And as I said before, under the  
7 Reg. Guide, it can also be included as one of the kinds of  
8 errors that has to avoided or has to be taken into  
9 consideration in determining whether the criticality  
10 requirements are met.

11 Ms. Zabler argued that the general design criteria  
12 aren't strict regulations. That may be the case, that some  
13 of these general design criteria are very general, but they  
14 certainly are extremely important.

15 They are the backbone of the NRC's regulation of  
16 nuclear power plants. And this particular general design  
17 criterion is very specific about what is allowed and what is  
18 not allowed. So, we would submit that there is much less  
19 flexibility than Ms. Zabler would claim in interpreting  
20 GDC-62.

21 And again, we have a dispute over whether the  
22 higher burn-up level is a physical measure or and  
23 administrative measure. We think it's an administrative  
24 measure. If some employee of CP&L has to make sure that,  
25 has to monitor the burn-up level of the fuel that goes into

1 the spent fuel pool, that's not a physical measure. That's  
2 an administrative measure.

3 With respect to the, to our reliance on the  
4 recently issued request for additional information, the  
5 Staff argues that we can't just piggyback onto an RAI to add  
6 further basis to our contention. But we would submit that  
7 the Staff piggybacked on our contention. We got there  
8 first.

9 [Laughter.]

10 MS. CURRAN: This is an indication that the Staff  
11 is paying attention to our concerns and delving further into  
12 the issue with the Applicant, and that it further supports  
13 our contention.

14 That's all I have on this one.

15 MR. BOLLWERK: All right.

16 MR. HOLLAWAY: Mr. Chairman?

17 MR. BOLLWERK: Yes?

18 MR. HOLLAWAY: If I could add two points just to  
19 clarify a couple things.

20 The first point is - and I just forgot to say this  
21 - we are not disagreeing with the Staff. Our position is  
22 the same, that burn-up of spent fuel is in fact a physical  
23 process. Our point was that implementation of burn-up  
24 credit uses administrative processes. And I think that's  
25 consistent with the Reg. Guide. But there's no question

1 that the burn-up of spent fuel itself is a physical process.

2           Nonetheless, we still believe that GDC-62 does not  
3 require that all processes involved in criticality control  
4 need be physical. And I would point out as an example, we  
5 discussed boron as a physical process. And there was an  
6 agreement that boron is physical, but putting it in the  
7 pools is not physical; it's administrative.

8           MR. BOLLWERK: It's the same as putting --

9           MR. HOLLOWAY: Putting racks --

10          MR. BOLLWERK: Putting racks, where I have a  
11 physical distance. Yet they have to be put in the pool.

12          MR. HOLLOWAY: Somebody's got to them in the pool.

13          MR. BOLLWERK: That's what I was trying to --

14          MR. SHON: Yeah.

15          MR. HOLLOWAY: That's precisely the same point I  
16 was going to make. So, to that extent, then maybe burn-up  
17 is a physical process and everything's taken care of. I  
18 don't know. I don't know, it's - boron, racks, the same  
19 way.

20                 And the second point I wanted to make was, with  
21 respect to Reg. Guides and their use, it's clear that Reg.  
22 Guides don't come out and say the Commission has issued the  
23 following Reg. Guides. Clearly, the Staff document.

24                 But with respect to its weight, Appeals Board has  
25 stated that, "although not controlling the Staff's guidance

1        -" and this was an issue regarding spent fuel storage -  
2        "Staff's guidance is entitled to considerable weight." So  
3        it's not a make-weight. "The Commission has stated, if  
4        there is conformance -" and this was specifically on general  
5        design criteria - "if there is conformance with regulatory  
6        guides, there is likely to be compliance with the general  
7        design criteria, and that's particularly true in the absence  
8        of other evidence to the contrary."

9                So it is not the case, the Regulatory Guides are  
10        just a make-weight. They are certainly entitled to  
11        considerable weight.

12                That's all.

13                MR. BOLLWERK: All right. Ms. Curran?

14                MS. CURRAN: I'd just like to talk about the  
15        difference between a physical measure and an administrative  
16        measure. I suppose - it seems like the racks themselves are  
17        being characterized as administrative measures, and I think  
18        that's going way too far.

19                The racks are a physical structure that is put  
20        into the pool, and that stays the same. After they're put  
21        into the pool, nothing changes about those racks. And the  
22        racks also have material in them, solid material with boron  
23        in it. That stays the same. That doesn't change during the  
24        operating life of the plant. That's a physical system  
25        that's put in place. Now maybe someone has to do it in the

1 first place, but after that, nobody has to do anything.

2 That is in sharp contrast to the placement of the  
3 spent fuel rods in the pools, in which someone has to  
4 evaluate what are the characteristics of the rods, and where  
5 should they go.

6 It's also extremely different from the boron in  
7 the water; the water in the spent fuel pools is constantly  
8 being drained out and replaced. It's constantly circulating  
9 and there's a constant need to add more boron to the water -  
10 a constant need for more administrative measures. That's  
11 completely different from the nature of the racks.

12 MR. BOLLWERK: All right. Anything further from  
13 any of the Board members?

14 All right, I will go ahead now and get contention  
15 three, then. It deals with adequate quality assurance.

16 MS. CURRAN: I'm going to go through the  
17 Applicant's response and try to address the various aspects  
18 of it in relation to our contention.

19 One of the questions raised in the contention was,  
20 what is the scope of the equipment that is, for which the  
21 quality assurance documentation is missing. It appears that  
22 it includes piping, but it's not clear to us whether there  
23 is other equipment that is also involved and that would  
24 include heat exchanger tubing, strainers, filters.

25 And the Applicant purports to answer this in

1 footnote 32, on page 37. We're still somewhat uncertain; it  
2 hasn't resolved our concern. I'm particularly focusing on  
3 two sentences in the middle of that footnote - well, three  
4 sentences. One says, "all code piping in the form of  
5 pre-fabricated pipe spools and equipment in the scope of the  
6 alternative plan was supplied by an approved vendor having  
7 the requisite NPT authorization. The vendor data package,  
8 including the code data report for each such item, is on  
9 hand."

10 But then it says, "Any piping or equipment for  
11 which this quality documentation is not on hand will be  
12 replaced by appropriately qualified and documented  
13 replacement items."

14 So on the one hand, it appears they're saying, we  
15 have documentation on hand for equipment, and the other  
16 sentence says, if we don't have the documentation on hand,  
17 we'll supply it. So we're still uncertain about what is the  
18 scope of this problem.

19 There's certainly no disagreement that the  
20 Applicant did not maintain quality assurance documentation  
21 for all of the piping, at least, and possibly some of the  
22 equipment that's going to be used for the spent fuel cooling  
23 pools at C & D.

24 In our contention, we did allege that in addition,  
25 the Applicant had not maintained the piping and equipment

1 according to the requirements for a lay-up and prevention of  
2 fouling and microbiologically-induced corrosion during the  
3 lengthy period when it was unused, between the time when the  
4 project was cancelled and now the proposed opening of the  
5 spent fuel pools. It's important to note that the Applicant  
6 does concede that these lay-up requirements were not met  
7 during that time.

8 We consider this information supports our  
9 contention, because if the Applicant didn't meet these  
10 requirements during the last fifteen or twenty years, then  
11 it implicate the adequacy of quality assurance for the  
12 future because problems may have arisen during that period  
13 that aren't going to be dealt with adequately in the future.

14 The Applicant argues that since we all agree that  
15 the Applicant didn't meet the lay-up requirements, there's  
16 no issue here. We think that's just wrong. The issue is,  
17 having admitted that these quality assurance requirements  
18 were not met, the question is then, how is that being  
19 addressed now? Not, will the Licensee comply in the future?  
20 But, how will the Licensee address the problems that have  
21 been created by its non-compliance in the past? So the  
22 admission that it was non-compliant is important to our  
23 contention, and relevant.

24 The Applicant has submitted a plan under 10 C.F.R.  
25 50.55(a). As the Applicant states in its response to the

1 contentions, it is addressed exclusively to the issue of the  
2 lost QA documentation. It doesn't address the issue of what  
3 has happened to this piping and equipment during the lengthy  
4 period of time when it was unused.

5 For that, the Applicant says that it's got  
6 something called an equipment commissioning plan, which is  
7 found in the RAR response that is an attachment to this  
8 response. That's in footnote 37 on page 42. The Applicant  
9 asserts that the equipment commissioning plan isn't a  
10 licensing issue, it's an internal document that establishes  
11 how the Applicant will ensure compliance with NRC  
12 regulations. That's also on page 42.

13 Well, the Licensing Board should just reject out  
14 of hand that attempt to remove this issue from the licensing  
15 proceeding by calling it a non-licensing issue. It walks  
16 like a licensing issue and it talks like a licensing issue,  
17 and therefore, it is one. It raises a question of, how is  
18 the Applicant going to ensure compliance with this  
19 requirement in Appendix B?

20 It's not something that can be shunted off to the  
21 side as some kind of administrative measure or - what did  
22 they call it? And internal document. It's something that's  
23 material to the issue of whether this license amendment  
24 application conforms to NRC requirements for quality  
25 assurance.

1           There is an exemption, 50.55(a) - or, the licensee  
2 hasn't attempted to get an exemption under 50.55(a) for its  
3 non-compliance with the lay-up requirements of Appendix B.  
4 That's a requirment that needs to be met and addressed in  
5 the context of this licensing case. And even if it had  
6 attempted to include it in the plan, it would be a licensing  
7 issue.

8           The licensee also admits on page 42 that the plan  
9 for inspecting the welds and the piping isn't addressed to  
10 the issue of coping with a microbiologically-induced  
11 corrosion. But it just says that, "Before the piping is  
12 inspected -" this is further down the page, on page 42, that  
13 the piping will be inspected. So there's a concession here  
14 that the plan that's been submitted has not been submitted  
15 for the purpose of addressing the problems that were caused  
16 in the past by the failure to comply with the lay-up  
17 requirements.

18           MR. BOLLWERK: Short of ripping up the piping that  
19 - how else could they comply with this? I mean, giving the  
20 documents you're on? In other words, if they not going to  
21 take it out physically and put in new piping that meets  
22 whatever quality assurance, how else are they going to do  
23 other than inspecting it?

24           MS. CURRAN: Well -- well, there's a couple - what  
25 we're concerned about is the problems with the plan that

1 they've offered.

2 First of all, in the license amendment  
3 application, their plan did not deal with inspection of the  
4 piping for problems that may have accumulated during the  
5 period that the piping was stored. The problems of  
6 corrosion and fouling. That's not addressed by the plan.  
7 Apparently, it's addressed in this equipment commissioning  
8 plan that was just submitted by the Applicant, but it's not  
9 in the license application.

10 Second, the Applicant admits that the process that  
11 it's chosen cannot inspect all of the welds. For purposes  
12 of inspecting the welds, they can't get at all of them.  
13 And, that raises a question for us - what other measures  
14 could be taken? Are there other things that could be done?  
15 Are there better inspection methods that could be used to  
16 get at those areas?

17 It also - and this is kind of jumping over into  
18 the NEPA context. It raises the issue of, if it really is  
19 impossible to make an adequate verification of whether this  
20 piping and equipment can perform its safety function, then  
21 this is something that ought to be considered in weighing  
22 other alternatives, such as dry-cast storage.

23 MR. BOLLWERK: You mentioned better methods. I  
24 didn't read any here. You're not proposing any that I saw,  
25 or am I missing something? You just say, they may be out

1 there but you don't know what they are, but they need to  
2 look at them and analyze them in some way?

3 MS. CURRAN: Well, it may be that this just isn't  
4 acceptable, and that some other alternative has to be found.  
5 Maybe they have to lay new pipe.

6 MR. BOLLWERK: All right.

7 MR. LAM: Am I reading your comments right, then  
8 you consider this issue of the spent fuel piping quality of  
9 such importance that you would demand 100 percent  
10 inspection? Can I read your comments that way?

11 MS. CURRAN: Well, based on the information that  
12 we have so far, we are not satisfied with the degree of  
13 inspection that is provided for in this plan.

14 MR. LAM: But you're not necessarily demanding 100  
15 percent inspection of all the components?

16 MS. CURRAN: We would hope to have access to more  
17 information so that we could make a more detailed evaluation  
18 of what's being proposed. But at this point, there are a  
19 significant number of welds that will not be inspected under  
20 this plan. And that is a concern to us.

21 We think it raises an unacceptable level of safety  
22 risk. After all, this question of what's acceptable under  
23 50.55(a) is something that has to be evaluated using  
24 judgment, perhaps having more information than we have now  
25 about the nature of the, and location of what isn't being

1 inspected and whether the kind of information is available  
2 about those areas.

3 Right now, what we have is very general  
4 information. The general information provided in the  
5 license application isn't adequate for us to conclude that  
6 this is an acceptable substitute for meeting the  
7 regulations, which is what's required in the first instance.

8 And the license application also doesn't set forth  
9 any criteria for what would be an acceptable inspection of a  
10 weld. And we did explain in our contention that that  
11 inspecting a weld, these remote inspections - it's not a cut  
12 and dry operation where you take a picture and everyone can  
13 agree that you took the picture in the right place and yet  
14 the picture - everyone agrees what it shows. These things  
15 are subject to interpretation.

16 We don't have any criteria from the Applicant as  
17 to where, how these inspections are going to be done and  
18 what are going to be the criteria for the evaluation.

19 Now, the Applicant says that we haven't supported  
20 this in our declarations, and I just want to clarify the  
21 nature of our pleading here. All of our contentions, every  
22 single technical statement that is made in our contentions,  
23 is supported by the expert declaration of Dr. Gordon  
24 Thompson.

25 Dr. Thompson reviewed all of these contentions and

1 all the technical statements are based on his best  
2 professional judgment. So, when we say that a remote camera  
3 inspection is not subject to an easy yes or no kind of  
4 verification - yes, this weld is fine, or no, it's not -  
5 that's based on his professional opinion. Yes, we have  
6 supported this statement with professional opinion.

7 The applicant argues that there is considerable  
8 evidence that the welds of the spent fuel piping were  
9 conducted in strict adherence to the programmatic  
10 requirements of the Harris Quality Assurance Program.  
11 Again, these are very general statements.

12 They're very general statements that put together  
13 a circumstantial case that, whatever is available is going  
14 to substitute for what is required by Appendix B. Such  
15 general assertions cannot - having been challenged by us,  
16 cannot be accepted without further inquiry.

17 We've raised a reasonable basis for questioning  
18 whether this is sufficient information on which to base an  
19 acceptance of this license amendment application. The  
20 information provided so far is just too vague and general to  
21 support a conclusion.

22 Finally, the Applicant makes an argument that we  
23 haven't made a tangible link between the problems with the  
24 50.55(a) alternative plan and the health and safety impacts.  
25 In other words, what difference does it make? This is on

1 page 47 of the Applicant's response.

2 As I was discussing earlier with respect to the  
3 Yankee Rowe case, it is not necessary for the county to  
4 justify requiring that safety-grade piping in a nuclear  
5 power plant come up to minimum standards for documented  
6 reliability. That wheel was invented a long time ago and we  
7 do not have to reinvent it here.

8 But in any event, it isn't clear to us at all that  
9 what the licensee says is correct. And we'd like to point  
10 out that this statement that it doesn't really matter  
11 whether we, whether we have adequate support for the quality  
12 of these pipe was never made in the alternative plan, under  
13 10 C.F.R. 50.55(a). This is the first time it's appearing,  
14 is here.

15 So we've never had a chance to look into this, to  
16 say, okay, what difference does it make if the pipe is  
17 running through concrete and the water leaks out of the  
18 pipe? And the kinds of issues we would expect to have  
19 raised, had this been stated in the application, are -  
20 concrete is porous, and water does leak through it. And  
21 eventually it's going to go somewhere.

22 There's an issue of whether leaking water could  
23 ultimately affect the steel reinforcement in the concrete  
24 around it by degrading it.

25 There's also an issue of whether that water is

1 radioactive. I believe, earlier today when he was  
2 describing - the chart is gone, but when Mr. Hollaway was  
3 describing the cooling systems, he was saying that the  
4 purpose of the CCW system, one purpose of having it  
5 separated from the spent fuel cooling system is that the  
6 spent fuel cooling system may have radioactivity in it. So  
7 you don't want it to interact with the CCW system. Well,  
8 that radioactive water is going to be flowing through these  
9 pipes, whose quality we're uncertain of.

10 The long and the short of it is that had the  
11 applicant made a statement in its alternative plan that it  
12 really doesn't matter whether they provide any kind of  
13 quality assurance, inspections or documentation for these  
14 pipes, then, we would have had a chance to address that and  
15 raise those issues in our contention. But they didn't.

16 I don't have anything more at the moment.

17 MR. BOLLWERK: All right.

18 MR. O'NEILL: Mr. Chairman.

19 MR. BOLLWERK: Yes?

20 MR. O'NEILL: I'd like to pass out another exhibit  
21 and take a moment to go to the board. Any color.

22 MR. BOLLWERK: All right. And I take it this is  
23 another one of the ones that were distributed to everyone  
24 earlier in the week.

25 MR. O'NEILL: That's correct. These were provided

1 to the parties earlier in the week. It's hard for me to sit  
2 quietly for this long sum. I finally get the mike.

3 MR. BOLLWERK: I just have a question. Do you  
4 want to have these marked as well?

5 MR. O'NEILL: I would ask that the cut-away of one  
6 section of the used fuel storage facility at the Harris  
7 plant, which you see before you and which is marked as  
8 Exhibit 2.

9 MR. BOLLWERK: Okay. Any objection? All right,  
10 then it shall be so marked. And put into the - do you want  
11 it bound in the --

12 MR. O'NEILL: Bound into the record.

13 MR. BOLLWERK: All right. Could you do that as  
14 well, please.

15 [Applicant's Exhibit No. 2 was  
16 marked for identification and  
17 received into evidence.]

18 MR. O'NEILL: And while we're at it, the second  
19 cut-away that I handed out, which is called horizontal  
20 cut-away, I would ask that it be marked as Applicant's  
21 Exhibit 3 and be bound into the record.

22 MR. BOLLWERK: All right. Any objections to that?  
23 All right. If you could do that please as well.

24 [Applicant's Exhibit No. 3 was  
25 marked for identification.]

1           MR. O'NEILL: In the "Pictures Worth a Thousand  
2 Words" category, it might have been useful to have this  
3 earlier in the day. But it does show part of the Harris  
4 spent fuel storage facility.

5           What you are looking at in this cut-away are pools  
6 A and B. This happens to with the pools that are shown in  
7 the cut-away, but they're illustrative for our purposes.  
8 The pool closes to the far left -- which is, by the way,  
9 south - is A spent fuel pool. And A spent fuel pool is  
10 smaller; it's 13 feet by 38 feet. The B spent fuel pool,  
11 which is the larger one, is 50 feet by 27 feet. The depth  
12 of the pools are 40 feet.

13           You also see behind the spent fuel pools a fuel  
14 transfer canal. That canal allows fuel to be moved  
15 underwater between any of the pools. And when C and D are  
16 commission, it will be able to be moved to pools C and D as  
17 well. You will note that there is reinforced concrete,  
18 which is the gray matter that you see below and surrounding  
19 the pools. For example, below the pools, the reinforced  
20 concrete is 12 feet in thickness.

21           In addition, the building itself is reinforced  
22 concrete, and you can see the base mat is 10 feet. And the  
23 building, which is a rather large building, is 400 feet  
24 long, 54 feet wide, and 120 feet tall at the highest point.

25           I'd like to turn to Applicant's Exhibit 3.

1           This is a representative cut-away of a spent fuel  
2 pool, not precisely to scale but close enough for purposes  
3 of making a few points. Again, you see the 40-foot depth of  
4 the pool with the spent fuel storage racks approximately 14  
5 feet at the bottom of the pool.

6           The tech. specs require that there be a minimum of  
7 23 feet of water over the spent fuel. Spent fuel pool C is  
8 the same size as B, 50 feet by 27 feet. The D pool is  
9 somewhat smaller and is 30 feet by 20 feet. The water level  
10 of the pool generally is approximately one foot below the  
11 top of the pool.

12           If you look at Exhibit 3, you will see a line that  
13 is called "Supply", which runs through the concrete up to  
14 the top of the spent fuel pool. And you'll see one that is  
15 labeled "Return". There are actually two lines in each  
16 spent fuel pool - two supply and two return. These lines  
17 are 3/8-inch thick wall stainless steel piping, either 12 or  
18 16 inches in diameter.

19           At the bottom of this chart, you'll see a  
20 representation of the spent fuel pool cooling system. It  
21 shows one heat exchanger and one pump. There are indeed  
22 redundant heat exchangers and pumps for pools C and D, which  
23 operate as a unit when it is completed. Each heat exchanger  
24 is adequate to handle the full capacity of both pools, and  
25 one pump is adequate to handle the full capacity for cooling

1 of both pools.

2 The question was raised in the Petitioner's  
3 contention, and again today, is what about this equipment?  
4 And the answer is that all of the equipment meets the design  
5 basis, meets all the code requirements, was either stored  
6 properly or was replaced, such that there is no issue and we  
7 did not apply to the Commission for any exemption relating  
8 to any of the equipment. The only issue here raised by the  
9 50.55(a) application, alternate plan, and by the contention,  
10 goes to this piping that is encased in concrete for both  
11 pools C and D.

12 By the way, the longest run of piping that is  
13 encased in concrete is 76 feet. The shortest run is 24  
14 feet, depending on which pool and how far away it is from  
15 the heat exchangers and the pumps. But the Chairman's  
16 question was certainly pertinent. What would we do other  
17 than inspect this piping to ensure its adequacy.

18 There are, as noted, 15 embedded welds in this  
19 piping. The maximum pressure in the piping, when the pump  
20 is operating, is 20 pounds per square inch by gauge. As you  
21 can see, the inlet and outlet are at the top of the pool and  
22 are essentially open to atmospheric pressure, because it  
23 simply is taking the suction and discharging into the pool  
24 itself.

25 Now, I want to use this particular schematic to

1 make the last point that Ms. Curran made, to respond to that  
2 point, and make the last point that I made in my brief. The  
3 Petitioner has not shown or alleged even a link between the  
4 inadequacies - assume for the moment that there are problems  
5 with the welds in this piping.

6 Assume that that deficiency is correct. That's  
7 not good enough, and not just with respect to  
8 decommissioning plans, as suggested by Petitioner's counsel,  
9 but also in the Oyster Creek proceeding, with respect to  
10 spent fuel storage and dry cast, there has to be, in  
11 addition to - and also by the Commission's regulation - in  
12 addition to a basis with specificity, there must be some  
13 link to a health and safety issue.

14 The point that we make here is that Petitioners  
15 have not made that link, nor can they. The reason they  
16 can't is that, if you assume for the moment that there could  
17 be a defect in a weld in this piping, the worst thing that  
18 could happen would be that the water level in the pool would  
19 go down approximately five to six feet. But even that would  
20 be very, difficult if the leak were in this concrete encased  
21 piping. There's nowhere for the water to do. If you had a  
22 guillotine break of this piping at the bottom - which we  
23 note, the FASR indicates is not a safety issue. Why isn't a  
24 safety issue? Because the pool level will only go down five  
25 feet, you can then repair the pipe, and there's plenty of

1 different ways to fill the pool back up again.

2 But we're not talking about the potential for a  
3 guillotine leak. We're talking only about the potential for  
4 a slight defect, or pitted corrosion in a weld somewhere in  
5 that piping. And what the Petitioners have not done, cannot  
6 do, is show how that implicates public health and safety.  
7 It may be some water some place that the CP&L will have to  
8 clean up and process within this large, reinforced concrete  
9 building. But there is no public health and safety  
10 implications of a leak in a weld in this piping.

11 That's the fundamental reason that this contention  
12 must be rejection. The Commission's regulations, case law  
13 requires that link to be made by Petitioners. We don't have  
14 to make that demonstration, but of course if we went through  
15 a hearing, it would be pretty. It's almost obvious if you  
16 look at this diagram. It can't cause a problem.

17 By the way, while concrete may indeed be somewhat  
18 porous, there are some spent fuel pools that don't have what  
19 this pool has, which is a stainless steel liner. Dresden,  
20 for example, is just a concrete pool, like a swimming pool  
21 that you might see in someone's backyard.

22 MR. LAM: Is both the inlet and the return line  
23 five feet below the pool level? Both of them?

24 MR. O'NEILL: Both of them are approximately five;  
25 I think there's a slight offset. I think one may be closer

1 to six. And the waterline is a foot below. So it's about  
2 five feet below the waterline and about six to seven feet  
3 below the top of the pool.

4 MR. LAM: And the placement of such elevation is  
5 done with the intention to mitigate the level drop if  
6 there's a pipe break, is that true?

7 MR. O'NEILL: That is correct, Dr. Lam. In fact,  
8 the FSAR section that I quoted makes it very clear that this  
9 ensures that there cannot be a pool drainage problem because  
10 of where the inlet and the outlet actually fall in the pool.

11 MR. LAM: Thank you.

12 Now, let me then turn to each issue that is raised  
13 in the contentions, which I believe are fatally flawed  
14 because there is no linkage with the health and safety  
15 issue. But even if that argument were not accepted for some  
16 reason, none of the bases are sufficient.

17 I say that given the possibility that at least one  
18 appeared to have a basis with specificity. That went to the  
19 microbiologically induced corrosion. When we get to that, I  
20 think it's clear that that really does not have adequate  
21 basis in specificity, as well.

22 The contention is multifaceted because it really  
23 begins with an attack on quality assurance, then goes to  
24 50.55(a), and then goes to an attack on the piping itself.  
25 And I'd like to sort of try to separate those.

1           Let's go first to quality assurance. There's no  
2 question that in 1983, when Unit 2 was cancelled, that the  
3 QA program was no longer applied to this system, which was  
4 part of the Unit 2, Unit 3 plants. They did not take into  
5 account storage of the piping. Indeed, by the way, the  
6 pumps and the heat exchangers were stored - for example, the  
7 heat exchangers with a nitrogen purge. The pumps were put  
8 on the shelf in the warehouse as possible spares. But  
9 that's not at issue here.

10           The piping was not stored in any kind of a QA  
11 lay-up condition. That's why, in part, there's a 50.55(a)  
12 alternate plan that's discussed here, and that was part of  
13 our application. And the second part is, there were  
14 documents that were destroyed. The documents included weld  
15 data reports for the fifteen welds in question. It also  
16 included weld data reports on some hanger welds and it  
17 included weld data reports on some of the welds otherwise in  
18 the piping that are external to the concrete.

19           With respect to the piping that is external to the  
20 concrete, it can be reinspected with NDE and requalified  
21 with respect to the weld. With respect to - so we don't  
22 have an issue there. We cannot do the same NDE that was  
23 done before on the welds within the piping. But, one of the  
24 points that is made in the application for the 50.55(a)  
25 alternate plan is that we do know, and can support - albeit.

1 it is described as circumstantial evidence -- that the welds  
2 were done by the same welders, using the same weld filler  
3 material, using the same procedures that were done on the  
4 Unit 1A and B pools, at the same time, before the concrete  
5 was poured.

6 And each of those welds, in fact, had a weld data  
7 report. We know that because, at least with respect to  
8 thirteen of the fifteen, there's a hydrotest report, before  
9 the hydrotest was done, that the person doing the hydrotest  
10 was required to inspect the weld data report and checked off  
11 that, in fact, he did that. So, we have certainly evidenced  
12 that a weld data existed at the time the welds were done,  
13 under the QA program. All of that is presented in the  
14 50.55(a) plan.

15 So we admit that it wasn't stored under QA  
16 conditions. We have a plan for how we meet, as an  
17 alternative -- ASME Code Section 3. That plan has been  
18 approved by the nuclear insurer - that's Enclosure 13 to the  
19 response to the RAI, which is enclosed with our response -  
20 who by the way, who is the Chairman of the ASME Committee.  
21 So we do have a plan and we submit that, in light of that,  
22 for a contention that relates to 50.55(a), that the  
23 Petitioner must come forward with a contention with basis in  
24 specificity that is -- what is wrong with that Plan?

25 Why doesn't that plan assure we meet the

1 requirements of ASME Code Section 3? Why doesn't that Plan  
2 assure that when we place this system into service, that we  
3 will be able to put it into our quality assurance program,  
4 and we will maintain it under Appendix B. Why doesn't that  
5 provide adequate assurance? We do not know what is wrong  
6 with the plan because they have not pled that with basis in  
7 specificity.

8           They have pointed out three things, though, that  
9 really don't go to the plan, but go to the question of, does  
10 this piping meet the design basis for piping to be used in  
11 this type of a system? What about corrosion, and what  
12 about, specifically, microbiologically induced corrosion.  
13 Mr. Lochbaum has come forth with some information notices.  
14 That declaration points that the information notices, even  
15 in one case, applied to one of CP&L's plants - the Robinson  
16 plant - and suggested that piping that is in storage for a  
17 long time with water sitting in it could be subject to  
18 corrosion or degradation or microbiologically induced  
19 corrosion. I believe the term now used in the corrosion  
20 circles is "microbiologically influenced corrosion."

21           But if we look at that a little bit more closely,  
22 that really doesn't support an allegation with respect to  
23 this piping.

24           And the reason it doesn't support a contention  
25 with respect to corrosion of this piping, is because if you

1 look at that information notice, every pipe - stainless  
2 steel pipe - that was subject to this type of corrosion was  
3 subject to raw water: lake water, sea water, brackish  
4 water, cooling tower water, perhaps oil. But none of it was  
5 exposed to demineralized, chemically treated water. What  
6 kind of water was in these pipes? Water that was in the  
7 spent fuel pool that had leaked past, actually, a seal that  
8 wasn't completely 100 percent effective in keeping water out  
9 of the pipes. So that is the water that was in the pipes.

10 There is no basis that the information notice that  
11 is cited by the Petitioners at all implicates, can be a  
12 basis for, provides adequate specificity for this piping  
13 with these types of conditions. That's why there's  
14 inadequate basis in specificity. But this isn't a game, and  
15 there is a way of determining whether or not you have  
16 microbiologically influenced corrosion: test the water.  
17 Find out whether you have any bacteria of any variety that  
18 could - could - result in such corrosion. There are tests  
19 that allow you to do that.

20 The equipment commissioning plan notes that such a  
21 test would be done. And I will note today on the record,  
22 although it obviously cannot be evidence to be used to  
23 reject this contention - but I will provide to the  
24 Intervenor today, and to Mr. Lochbaum, the analysis that was  
25 done of the water in the piping, looking for all the

1 potential bacteria, and finding that there was none.

2 So, I will just hand that out for information  
3 only, because I understand that the Board cannot rely on  
4 this for purposes of the contention. And I do not propose  
5 it be an exhibit, but there's no reason that it not be  
6 handed out.

7 MR. O'NEILL: This was provided to the NRC Staff  
8 yesterday. It was actually just completed yesterday because  
9 it takes awhile to culture the bacteria. For your  
10 information, I'd be happy to give you a copy of it.

11 We say we don't rely on this, but we do rely on  
12 the plan. The plan included, in addition to the QA  
13 investigation of the documents, it includes this type of  
14 testing and it includes an inspection. Now, in the response  
15 to the Staff's RAI, we added, we answered their question and  
16 provided much more detail with respect to exactly how the  
17 inspections would occur.

18 In the piping that's not encased in concrete, we  
19 can inspect it quite easily. We inspected all that piping.  
20 We inspected all those welds, and we noted in the  
21 application that we inspected all those welds. Not one of  
22 them had a defect. Twenty-two welds were inspected; no  
23 defects. We inspected the piping for any corrosion; no  
24 corrosion. So with respect to a lot of the piping, which is  
25 the same stainless steel piping - it just happens not to be

1 encased in concrete - we can inspect it. We have done so.

2 We have also committed to inspect some of the  
3 piping with a remote camera. Ms. Curran said, well, you  
4 didn't include the criteria. Well, in fact, if you review  
5 the response to the RAI, it said exactly what criteria's  
6 being used to inspect the welds, exactly what the criteria  
7 is for undercut, what the criteria is for any defect in the  
8 weld. So there is criteria in the response to the RAI.

9 What we're submitting to the Board today is that  
10 there is no basis with specificity that this plan to ensure  
11 that the piping meets the design criteria for piping to be  
12 used in this system in this plant is acceptable. There is  
13 no challenge to the plan. There's simply a challenge to,  
14 hey, you didn't tell us about corrosion. Well, we in fact  
15 certainly were going to inspect for corrosion, and we've  
16 done it.

17 The last part of the three criticisms of the plan  
18 to commission this piping is that we're not inspecting all  
19 fifteen welds with a camera. Once again, where's the basis?  
20 Where's the specificity to say that a sampling of the  
21 accessible welds, running a camera through the piping, once  
22 you've already inspected twenty-two welds in the same  
23 piping, that were accessible much more easily, isn't  
24 adequate. What's wrong with this plan?

25 Ms. Curran says Dr. Thompson says in his opinion,

1 that's not good enough. I believe that NRC case law  
2 provides that an opinion without any basis, without any  
3 statement about why that's not adequate, is certainly not to  
4 be given credence.

5 Mr. Lochbaum's declaration only goes to one issue,  
6 nad that's the corrosion. I think we've addressed that. He  
7 also cites to some NRC inspection reports, which are 1981,  
8 which are well before the SCR came out, which certainly  
9 found that there was an adequate QA program and construction  
10 program and certainly cannot be the basis of any allegation  
11 of inadequacy of the QA at the time that these welds were  
12 actually performed.

13 Let me go back through my notes and see if there's  
14 anything that Ms. Curran said that I did not address.

15 I believe that's all I have to say on Contention  
16 3. Thank you very much.

17 MR. BOLLWERK: Thank you. Ms. Zabler?

18 MS. ZOBLER: I'd just like to point out what  
19 Section 50.55(a) says about alternative plans, which is what  
20 the proposed alternative plan the licensee has submitted  
21 under this regulation 50.55(a). And it says, "The Applicant  
22 shall demonstrate that the proposed alternative would  
23 provide an acceptable level of quality and safety, or  
24 compliance with the specified requirements of this Section  
25 would result in hardship or unusual difficulty without a

1 compensating increase in the level of quality and safety."

2 I would just like to point out that there was  
3 nothing in the Petitioner's filing that shows with any kind  
4 of basis what is wrong with the plan as submitted. So, on  
5 the basis of the pleading itself and the supporting  
6 affidavits, which merely state a conclusory opinion without  
7 the underlying factual basis, the filing fails to support  
8 the contentions.

9 There is a Staff RAI on the alternative plan, on  
10 which the Licensee did submit additional information. And  
11 I'd just like to submit, if the Petitioner is certainly free  
12 under our regulations to review the information and  
13 formulate a late-filed contention based on that, if they  
14 still have concerns. But as written today, the contention  
15 certainly lacks the necessary basis to allow for it to be  
16 admitted.

17 MR. BOLLWERK: They make a point that the  
18 equipment commissioning plan is not really part of the  
19 license application. Having said that, it's nonetheless  
20 Staff might well have looked at them to do anyway, even  
21 without having put it as part of the application?

22 MS. ZOBLER: Well, under the Appendix B quality  
23 assurance requirements, they would be required to comply  
24 with those requirements. I have not reviewed the plan  
25 myself, but to the extent that it shows how in the future

1 they're going to comply with Appendix B requirements, then,  
2 yes, they - we would expect that they would follow that they  
3 would follow that plan.

4 MR. BOLLWERK: All right. Anything further?

5 MS. ZOBLER: No, that's all.

6 MR. BOLLWERK: Okay.

7 MR. LAM: I'd like to go back to Mr. O'Neill for a  
8 couple of short questions.

9 MR. BOLLWERK: That's fine.

10 MR. O'NEILL: I may have gone too fast. I  
11 apologize.

12 MR. LAM: That's all right.

13 Mr. O'Neill, did I hear you correctly, saying all  
14 the active components that's not buried has been replaced  
15 for C and D?

16 MR. O'NEILL: The active componetns have been  
17 inspected to ensure that they meet all the requirement of  
18 quality assurance in the design basis, or replace.

19 MR. LAM: I see.

20 MR. O'NEILL: So there's no issue one way or the  
21 other.

22 MR. LAM: So the issue is only, relates to the  
23 barrier piping?

24 MR. O'NEILL: That's correct. And as I mentioned,  
25 in fact, the heat exchangers were stored under a nitrogen

1 purge to ensure that they would not deteriorate in any way,  
2 as installed spares, if you will. And the pump was taken  
3 out and stored in the warehouse under quality conditions to  
4 ensure that the pump, once again, would be able to be used  
5 as a spare, so that certain of the components were stored  
6 under quality conditions. But the piping was not laid up or  
7 stored under quality conditions.

8 All of the rest of the pipe has been inspected so  
9 that the only issue here, and the only issue - the only  
10 issue raised in the 50.55(a) alternate plan, and the only  
11 issue raised by the Petitioner's contentions go to the  
12 embedded piping and the fifteen welds.

13 MR. LAM: Now, you also mentioned the maximum  
14 operating pressure expected is approximately 20 pounds.  
15 What is the design pressure of these lines? Do you recall?

16 MR. O'NEILL: I will turn to one of the engineers.  
17 I don't - Mr. Edwards, who I introduced earlier as the  
18 project manager, indicates that the design pressure of the  
19 lines is 150 pounds.

20 MR. LAM: So you do have a significant margin  
21 there?

22 MR. O'NEILL: Absolutely. Again, this line is  
23 essentially open to atmospheric pressure with just a pump.

24 MR. LAM: Thank you.

25 MR. BOLLWERK: All right. Anything further from

1 the board? Ms. Curran?

2 MS. CURRAN: I'm up?

3 MR. BOLLWERK: You're up. I'm sorry, didn't make  
4 that clear? Yes, you're up, definitely.

5 MS. CURRAN: There's been a lot of criticism here  
6 about what Orange County's Contention 3 lacks, so I thought  
7 it might be helpful to look and see what's there.

8 There is an assertion in this contention, on page  
9 16, going on to 17, that CP&L's license amendment and  
10 application is silent about the storage and preservation of  
11 previously completed piping and equipment between December  
12 1983, when Unit 2 was cancelled, and the present. Thus,  
13 there's no evidence that Criteria 13 and 16 have been  
14 satisfied during this period with accompanying records, as  
15 specified in Criteria 17.

16 And then the contention goes on to explain that  
17 this is a potential safety issue, because when piping and  
18 equipment remain unused for long periods, they can suffer  
19 degradation, which impairs their ability to perform their  
20 function.

21 In its response to our contention, the Applicant  
22 concedes on the top of page 42 that the 50.55(a) alternative  
23 plan does not describe a program for identifying and  
24 remediating potential corrosion and fouling. So, in other  
25 words, the criticism in our contention is confirmed, that

1 this license amendment application does not address the  
2 problems caused by CP&L's failure to conform with these  
3 criteria in Appendix B since 1983.

4 The Applicant apparently would dispute our claim  
5 that this problem is a safety issue by saying that the worst  
6 thing could happen, if there was leakage from these pipes,  
7 is a drain-down of a few feet. That is a bad thing, but  
8 it's not the worst thing. A small continuous leak would  
9 allow radioactive water to leak out of the building. The  
10 small leak would not be detected because evaporation could  
11 mask the lost water.

12 The Brookhaven spent fuel pool is leaking water,  
13 and has leaked water for over a decade. The tritium flow  
14 path from the leak has been traced off the plant site. So  
15 this isn't a hypothetical problem; this is a problem that's  
16 been demonstrated at another facility. We're raising this  
17 today because this argument wasn't made in a license  
18 application. We're having to respond to it today. It  
19 should have been made in the license application. We  
20 responded to was in the license application.

21 But now that Applicant's saying, well, it doesn't  
22 matter whether we do this correctly or not. And, in fact,  
23 it does. There's experience at other facilities that shows  
24 that this is a significant safety issue.

25 The Applicant also argues that we don't take

1 legitimate issue with the fact that only a portion of the  
2 welds are going to be inspected. In fact, as much as  
3 two-thirds of these welds may not be inspected. That is a  
4 significant portion of the welds. The Applicant's claiming,  
5 well, it's enough that we're going to do these inspections  
6 and we'll "sample the welds."

7 It's our position that, taken in context of a  
8 regulatory system that requires documentation for each weld,  
9 it is simply not sufficient as an alternative to come in and  
10 say, we're going to sample a third of them, and based on  
11 that, we're going to extrapolate to the other two-thirds of  
12 the weld. That assertion is based on the professional  
13 opinion of our experts, that that is a high proportion of  
14 welds for which no documentation available, for which no  
15 inspection will be carried out. It's sufficient to raise a  
16 material factual dispute with the Applicant.

17 MS. CURRAN: I'd just like to point out that in  
18 the application, it stated that the remote camera inspection  
19 was schedule to occur during the modification of pools C and  
20 D, when pool levels are lowered and welds piping blanks are  
21 removed. This was in the license amendment application. We  
22 presume that meant that that was to occur after the license  
23 amendment was issued, and they were preparing to make the  
24 changes.

25 Now, the Applicant is saying they're going to make

1 the inspections in May and June, which appears to be a  
2 concession to us, that it's necessary to do these  
3 inspections before this license amendment is issued, to  
4 provide some information that would provide a basis for a  
5 decision on whether the inspections can be used to  
6 extrapolate to the other welds.

7 But, we've raised a significant dispute about this  
8 here, and the fact that the Applicant is now going to go in  
9 and try to provide that information, more information,  
10 before the license is issued, doesn't undermine our claim.  
11 It supports our claim that more is needed here before the  
12 NRC should be signing off on this license amendment.

13 Mr. O'Neill also argues that the water in the  
14 pipes was demineralized. We're curious how CP&L can be so  
15 sure of what the conditions were in those pipes over a  
16 period of 15 years. There's certainly nothing in the  
17 license application that indicates that anyone was paying  
18 attention to what was going on in those pipes.

19 This latest technical report that's been passed  
20 out to us today doesn't - first of all, it's getting into  
21 the merits of this contention. What is the quality of the  
22 water in these pipes? We've certainly raised enough  
23 information to create an admissible issue.

24 If the Applicant wants to come in and present  
25 evidence that our concern has been resolved, well great,

1 let's do that in the context of an evidentiary hearing. But  
2 this isn't a basis for rejecting our contention; it supports  
3 the existence of material dispute with the Applicant. It  
4 also provides no information about what was happening in  
5 these pipes ten years ago or fifteen years ago. It's a  
6 snapshot that was taken recently. This doesn't provide any  
7 basis for saying that the conditions in these pipes were  
8 basically those of distilled water for the last fifteen  
9 years.

10 I would note that on the second page towards the  
11 end of this report, the report states that the lines have  
12 been reportedly flooded for an extended period of time.  
13 It's not said what's the cause, what was the source of that  
14 flooding. But certainly the water in the pipes may have  
15 varied over a period of time and it's not legitimate to  
16 throw out our contention based on this snapshot.

17 MS. CURRAN: Also, the pipes may not have been  
18 completely flooded, so that you could have combinations of  
19 air and water that would lead to microbiologically induced  
20 corrosion. So, there are questions raised about this. This  
21 document doesn't resolve or undermine our concerns; it just  
22 raises questions.

23 That's all I have.

24 MR. BOLLWERK: All right. At this point, why  
25 don't we go ahead and take a - I'm sorry, are there any

1 questions from any of the Board members to Ms. Curran? I  
2 apologize. No? At this point --

3 MR. O'NEILL: Mr. Chairman, could I just respond  
4 to the leaking pipes a second?

5 MR. BOLLWERK: All right, but again, Ms. Curran  
6 has --

7 MR. O'NEILL: I understand, but this'll only take  
8 a second, and again, a picture helps.

9 I have no idea how Brookhaven is set up, but if  
10 you have a leak somewhere in the piping --

11 MR. BOLLWERK: John?

12 MR. O'NEILL: -- if you look at this Exhibit 2.  
13 You look at Exhibit 2 and leak in the piping. If you look  
14 at the very bottom, sort of the basement, or - from back in  
15 my Navy days - in the bilge, is where anything would collect  
16 that would leak out of any place. And that system collects  
17 any water and sends it to waste processing. It just doesn't  
18 leak out of the building.

19 With respect to the water in the piping, where did  
20 that water come from? It came either from the C & D pool or  
21 from the transfer canal, which has been at all times filled,  
22 and connects all the pools together -- demineralized water  
23 that is treated with chemicals and, of course, at least  
24 2,000 ppm boron, and which is sampled on a regular basis .  
25 So it's pretty clear what water was in there, simply because

1 there's no other water that could get in there.

2 That's all I have.

3 MR. BOLLWERK: All right. Ms. Curran, anything  
4 further?

5 MR. LOCHBAUM: Could I, just for simplicity,  
6 answer to --

7 MR. BOLLWERK: -- back also so we can hear you,  
8 and the court reporter as well.

9 MR. LOCHBAUM: Part of the application stated, or  
10 some of the testimony today stated that some of the welds  
11 and some of the piping had been subjected to hydros. Unless  
12 the applicant shows that that hydro was done with this demin  
13 water and boron water, then it could have been any kind of  
14 water - not any kind of water, but that could have been  
15 different water than is in there now. And there's no  
16 evidence, or there's been no evidence suggested or provided  
17 that indicates that that water was drained out of this  
18 piping.

19 The sampling that's done lately could be the  
20 leakage past those places in the last few months, years, but  
21 it doesn't mean that that was the same condition of the  
22 water ten, fifteen years ago. So, it is a good point, if  
23 you're arguing in recent times, what's the condition of that  
24 water been? But it is by no means conclusive over all time  
25 that that piping was there.

1 MR. BOLLWERK: All right. Anything further?

2 MR. O'NEILL: No.

3 MR. BOLLWERK: Why don't we go ahead then and take  
4 a ten-minute break at this point. We'll return at five 'til  
5 four and move to the environmental contentions.

6 [Recess.]

7 MR. BOLLWERK: Why don't we go ahead and start in again,  
8 please. If everybody could take a seat.

9 MR. BOLLWERK: I believe that brings us to the end  
10 of the technical contentions and leaves us with a set of  
11 environmental contentions. There was a development in the  
12 course of this that, I think, raises a question about how  
13 many of those are left or what exactly the status of them  
14 is, so maybe, I'll let you address that if you'd like to say  
15 something about it, Ms. Curran.

16 MS. CURRAN: Yeah. It seems like there's just a  
17 couple issues here. One is what to do with our  
18 environmental contentions now that the Staff has decided to  
19 prepare an environmental assessment. We don't dispute that  
20 we need to wait until the environmental assessment comes out  
21 to raise NEPA issues. We'd be content to just hold the NEPA  
22 issues in abeyance until that happens.

23 I know this issue came up in the Vermont Yankee  
24 case, I think, where, if the Board were to deny our safety  
25 contentions - all of them - and we didn't have an ongoing

1 case, then the question is, would it be appropriate to  
2 dismiss this case? And then, if the Board dismissed it,  
3 what would happen when the EA came out? Would there be  
4 another notice of opportunity for a hearing? Would Orange  
5 County have to move to reopen the record?

6 Our biggest concern is that --

7 MR. BOLLWERK: You'd file an intervention  
8 petition.

9 MS. CURRAN: Right. That's right. Well - yeah,  
10 but --

11 MR. BOLLWERK: I mean, in theory, anyone can come  
12 in at any time and file an intervention petition. They just  
13 have to meet the late filing requirements, which would then  
14 proceed from there. So, that's it.

15 MS. CURRAN: Right. We just wouldn't want to be  
16 in the position of moving to reopen the record, which I  
17 guess wouldn't have opened at that point.

18 MR. BOLLWERK: I mean, we could argue about it. I  
19 don't want to speak out of turn here, but arguably if we'd  
20 never gone to the merits on anything, there's no "record" to  
21 reopen, on theory.

22 MS. CURRAN: Right.

23 There are two contentions for which the Applicant  
24 has asked for different relief. One is Contention 6, in  
25 which we assert that the scope of the environmental

1 assessment or environmental analysis should also cover the  
2 Brunswick and Robinson plants. And the other is Contention  
3 8, in which we ask for a discretionary EIS.

4 As long as we're going to postpone the other  
5 environmental contentions, it would be our preference to  
6 postpone these as well, although if the board would like to  
7 address these issues, we'd be willing.

8 We would like to get some guidance from the Board  
9 on the proper procedure for raising this issue of the  
10 requirement for a discretionary EIS. It's the Applicant's  
11 position that we should be going to the Commissioners with  
12 this, that we're - it really doesn't matter to us whether we  
13 start with the Licensing Board or whether we go straight to  
14 the Commission. We'd just like some guidance from the Board  
15 as to whether the Board would like us to present you with  
16 this contention first, or whether you would like us to  
17 bypass the Board and go straight to the Commissioners.

18 MR. BOLLWERK: I guess I can put it - the  
19 contention is before us, and it strikes me that as long as  
20 it's here, we have to deal with it one way or another. Now,  
21 the fact that it's here - I mean, you know where the  
22 Commission lives as well, and I'm not going to try to tell  
23 you what to do or not to do with the Commission.

24 I guess, I feel that any contention that's before  
25 us, we need to deal with in some way or another. So, I'm

1 not going to tell you to go to the Commission. We'll tell  
2 you that we'll deal that we will deal with the contentions  
3 before us and rule on it. And if, as the Staff has argued,  
4 and I think, that CP&L has argued, that we have no  
5 discretion to - this is a discretionary staff function,  
6 which we cannot be involved with, then obviously we'd have  
7 to dismiss the contention on that basis.

8 MS. CURRAN: I guess my concern would be that if  
9 you dismiss the contention as premature, and we didn't get  
10 any guidance as to whether it was appropriately before the  
11 Board, then it would just, we'd just --

12 MR. BOLLWERK: Well, there is an argument out  
13 there that's been made that, in fact, it's not properly  
14 before the Board, and I guess it's up to us to rule on that.  
15 And I'm not prepared to do it today. And I guess I'm not  
16 answering your question, but that's probably the best  
17 guidance I can give you at this point. If you want to make  
18 some arguments with respect to why you don't agree with the  
19 staff on the CP&L position, now would be the time to do  
20 that, I would guess. That would be the guidance I would  
21 give you.

22 MS. CURRAN: I really don't - it's not a matter of  
23 - we want to get the issue before the Commission through the  
24 appropriate channels.

25 MR. BOLLWERK: Right.

1 MS. CURRAN: And we've always assumed that the  
2 place to start with anything like that is at the Licensing  
3 Board.

4 MR. BOLLWERK: I would also say, I'm not trying to  
5 drum up business for the Commission either.

6 [Laughter.]

7 MR. BOLLWERK: It's really - don't write them a  
8 letter that we told you to come there. That's not what I'm  
9 telling you that we have an issue before, which raises a  
10 question, do we have the authority to order the Staff to do  
11 a discretionary EIS. And we'll deal with that if it's  
12 before us. And if you have an argument - I'll repeat, if  
13 you have arguments you want to make in response to the  
14 arguments that have been made, now would be the time to do  
15 that.

16 MS. CURRAN: Well, just before we go on, as we  
17 said before, we think it's appropriate to hold all of the  
18 NEPA contentions in abeyance or to dismiss them without  
19 prejudice, pending the filing of an environmental  
20 assessment. But there is a request from the Licnesing Board  
21 pending, to dismiss Contention 6 with prejudice.

22 MR. BOLLWERK: Okay.

23 MS. CURRAN: So, we would oppose that motion --

24 MR. BOLLWERK: All right.

25 MS. CURRAN: -- on several grounds. First of all,

1 the applicant basically says that this, the issue we raise,  
2 which is whether Brunswick and Robinson should also be  
3 within the scope of this environmental assessment, has  
4 already been addressed by the Commission or by the Appeal  
5 Board and the Licensing Board in VEPCO North Anna case.

6 We would submit that that case is different in one  
7 very significant respect. And that is, both the Licensing  
8 Board and the Appeal Board recognized in North Anna that in  
9 the proceeding for the expansion of the spent fuel pool in  
10 that case, the Intervenor did not file a contention  
11 objecting on the merits, either technical or environmental,  
12 to the spent fuel modification, spent fuel pool  
13 modification. That's on page 1200 of the Licensing Board  
14 Decision, and it said twice on page 1454 of the Appeal Board  
15 decision.

16 And that's very distinct from the case here, where  
17 Orange County has objected on technical and environmental  
18 grounds, to the adequacy of the safety provisions and to the  
19 environmental risks to the spent fuel pool at Harris. So we  
20 would submit that that case is not controlling here.

21 We would also submit that it is a factual issue  
22 here as to whether or not the expansion of the spent fuel  
23 pool at the Harris facility has independent utility. In the  
24 North Anna case, the Licensee said, well, we have to expand  
25 the spent fuel pool anyway to accommodate the fuel that

1 we're generating in our own plant.

2 Here, the applicant has made it quite clear that  
3 the purpose of the spent fuel pool expansion is to  
4 accommodate fuel from all three reactors. It's quite a  
5 significant expansion of spent fuel storage capacity at  
6 Harris. And it's pointedly designed to accommodate the  
7 spent fuel from all three reactors.

8 This is exactly the type of issue that NEPA is  
9 meant to address. NEPA is - Congress was concerned, and the  
10 courts are concerned in administering NEPA, about breaking  
11 up Federal decision making into small parts rather than  
12 looking at the integrated whole of what's happening.

13 Here, CP&L is proposing to store a great deal of  
14 nuclear power plant fuel from several plants at one facility  
15 in high-density spent fuel storage racks. The question that  
16 needs to be addressed under NEPA - or the questions, more  
17 than one, are what are the potential impacts of that spent  
18 fuel storage? And, what are the relative costs and benefits  
19 of the proposed alternative in comparison to other  
20 alternatives that are available for storing all the fuel  
21 that the Applicant proposes to store.

22 In the Vermont Yankee case, which we cite in our  
23 contention, the Licensing Board also recognized that there  
24 was no independent utility to this spent fuel pool  
25 expansion, that it also involved the storing of fuel, that

1 it can't be looked at in isolation. It has to be looked at  
2 in connection with the storage of the fuel, with the purpose  
3 of the license amendment. So we would oppose the  
4 Applicant's suggestion that this aspect of our contentions  
5 be dismissed with prejudice.

6 Okay.

7 MR. BOLLWERK: Anything further on the  
8 environmental at this point? All right. Mr. O'Neill?

9 MR. O'NEILL: Yes. The Licensing Board's analysis  
10 in the Diablo Canyon case that we cited is precisely on  
11 point and correct here, with respect to the disposition of  
12 contentions that seek to require an environmental impact  
13 statement before an environmental assessment has been  
14 prepared.

15 There, the Board stated that "After the Staff  
16 issues its EA, and assuming the EA will not call for an EIS,  
17 the Intervenor may submit a late-filed contention calling  
18 for an EIS. Such a contention, to be accepted, would have  
19 to be based on substantial and significant information  
20 indicating why an EIS is called for."

21 There is no procedure to suspend a ruling on these  
22 contentions. The contentions are before you. I think the  
23 case law is very clear, that they need to be dismissed.  
24 And, if - and it may be that they are not - if the  
25 Petitioner's dissatisfied, the Petitioner can come back and

1 tell us why at that time.

2 With respect to Contention 6, the decision we  
3 submit in the VEPCO North Anna case was not based on whether  
4 or not there were technical and environmental issues raised.  
5 It was very straightforward. The issue was whether or not  
6 the alternate storage at the Surry plant was before the  
7 Board there in considering the License Amendment request to  
8 expand spent fuel storage at North Anna. The Licensing  
9 Board said no.

10 There, there was another proceeding for receipt of  
11 fuel from Surry. Here, in this case, many years ago, we  
12 litigated -- I litigated - that very issue, whether or not  
13 the Harris license should include the authority to receive  
14 fuel from Robinson and Brunswick. We had contentions; we  
15 litigated it; we went up to court. And that was part of the  
16 license that was issued. That proceeding's over. That was  
17 the opportunity to address those issues.

18 This is a very narrow issue. This case is about a  
19 limited amount of fuel that will be stored in Pool C, by the  
20 way, one Mbtu with the initial racks installed in pool C.  
21 That's all this is about.

22 In the application - and I quickly pulled the  
23 briefing paper that is part of the record - the Applicant  
24 told the NRC staff that Harris loses full core reserve in  
25 the fall of 2001 if this license amendment is not granted.

1 It is forced to shut down in 2006 if this license amendment  
2 is not granted.

3 There's no question that there's independent  
4 utility of this license amendment request, whether or not  
5 the company shuts down the Robinson Brunswick plant and  
6 never ships fuel again. This is exactly like North Anna and  
7 Surry. That case law is controlling, and this contention  
8 must be dismissed, not just because it's premature, but  
9 because it's outside the scope of this proceeding.

10 MR. BOLLWERK: All right. Anything further? Ms.  
11 Zobler.

12 MS. ZOBLER: I think it would be best, with  
13 respect to the environmental contentions, that there's some  
14 kind of ruling on them, if to dismiss them as premature is  
15 moot. That way, when the Staff's EA is issued, the  
16 contentions that - if, in fact, are proffered - assuming  
17 they meet late-filed contention criteria, will be focused on  
18 the EA, and we won't sort of contentions springing to life  
19 after the fact. So in respect to the question of whether we  
20 should rule on the contentions now or wait, I propose that  
21 we get some kind of ruling now on the NEPA contentions, to  
22 the extent that they may be premature.

23 On Contention 6, I do believe that the VEPCO cases  
24 are controlling. In fact, the Appeal Board was very clear,  
25 saying that one amendment to expand the spent fuel has

1 nothing to do with the other amendment, which would allow  
2 the receipt and storage from the other facility. The only  
3 difference here is that the approval to allow receipt and  
4 storage was approved some ten, fifteen years ago.

5 Also, the environmental review is going to be  
6 dictated by the scope of the proposed action. Here, the  
7 proposed action is the expansion of the spent fuel pool and  
8 the placement of pools C and D. So, I support the dismissal  
9 of Contention 6, not just because it's premature but on its  
10 merits, for those reasons.

11 MR. BOLLWERK: All right. I guess I have two  
12 questions. The first one is a timing question. Does the  
13 Staff have a schedule for the EA yet?

14 MS. ZOBLER: We don't have a schedule, Your Honor.  
15 It will be several months from now though. It's not  
16 imminent.

17 MR. BOLLWERK: Are we talking about before the  
18 fall, or?

19 MS. ZOBLER: No, it would not be before the fall.

20 MR. BOLLWERK: Sometime in the fall perhaps.

21 MS. ZOBLER: Fall, late fall, probably around that  
22 time.

23 MR. BOLLWERK: The second question, just so I'm  
24 sure. The authorization that was granted back when the  
25 license was granted, I guess, for the Harris plant, did that

1 authorization contemplate a situation like this, where - I  
2 mean, there had to be a separate amendment to expand the  
3 spent fuel pools before - I'm trying to understand how the,  
4 what the authorization was that was granted back then.

5 MS. ZOBLER: Your Honor, if you'll give me a few  
6 minutes, I actually have a copy of the Harris --

7 MR. BOLLWERK: All right, or maybe Mr. O'Neill  
8 remembers.

9 MS. ZOBLER: Yes.

10 MR. O'NEILL: I think it's fair to say, Mr.  
11 Chairman, that the license is silent on any quantity of  
12 spent fuel that could be received. It authorized the  
13 licensee to store spent fuel and as much that is shipped  
14 from those plants, Brunswick and Robinson, to the Harris  
15 facility.

16 The only issue here, of course, is how much room  
17 does it have to store it.

18 MR. BOLLWERK: All right.

19 MR. SHON: But it surely is true that if the spent  
20 fuel expansion were not permitted, you would be able to ship  
21 west from Brunswick and --

22 MR. O'NEILL: In fact, it is also true that you  
23 would have to shut down Harris in a relatively short period  
24 of time.

25 MR. SHON: I realize that. I realize that, yes.

1 But Brunswick and Robinson wouldn't ship as much if you  
2 didn't get the license to expand the fuel pool.

3 MR. O'NEILL: That is also true. We're not  
4 denying that.

5 MR. BOLLWERK: All right. Is there anything  
6 further you want to say on that, Ms. Zabler?

7 MS. ZOBLER: No, Your Honor.

8 MR. BOLLWERK: All right. Ms. Curran then.

9 MS. CURRAN: Well, fifteen year ago - I guess, was  
10 it? Is that what you said, John?

11 MR. O'NEILL: The plant started up in 1987.

12 MS. CURRAN: Well, whenever this license amendment  
13 was issued to allow the shipment of fuel from Brunswick and  
14 Robinson to Harris. I doubt that the issue of how that fuel  
15 was going to be stored was on the table. Maybe I'm wrong.

16 MR. O'NEILL: How the fuel will be stored, that  
17 came from Robinson and Brunswick to Harris, was clearly on  
18 the table, because it had to be stored in the pools that  
19 were, at that time, licensed exactly they will be stored in  
20 C and D. Slightly different racks, but it is certainly --  
21 part of the license was to license pools A and B and store  
22 Brunswick and Robinson fuel in its pools.

23 MS. CURRAN: But it seems unlikely that the  
24 particular high-density storage rack that are being proposed  
25 for Shearon Harris today were litigated at that point. The

1 concern that we have here is that there's a proposal to  
2 store spent fuel in a very dense configuration in these  
3 dense fuel pools, and we've raised questions about the risks  
4 of storing fuel in that way.

5 And this is just the type of issue that calls for  
6 an examination of what are the risks of doing it that way  
7 and what are the alternatives to doing it that way that  
8 might be more cost-effective, that might be more protective  
9 of the environment? This is precisely the type of analysis  
10 that is called for by NEPA.

11 And perhaps it doesn't matter what the source of  
12 the spent fuel is that is going to be coming to the Harris  
13 plant, but only the fact that Harris has been - this license  
14 amendment application is designed so that Harris can not  
15 only store the rest of its lifetime inventory of spent fuel,  
16 but also accept spent fuel from other facilities. Wherever  
17 that other fuel comes from, it raises the question of  
18 whether it wouldn't be better to leave that fuel where it is  
19 and put it in dry cast, rather than to ship it to Harris and  
20 put it in the high-density racks and subject it to the  
21 accident risks that are unique to those high-density racks.

22 Mr. O'Neill said that this case is only about the  
23 initial storage of spent fuel in pool C. It's my  
24 understanding that the license amendment application covers  
25 both pools C and D, and it asks for permission to put

1 high-density racks in both pools C and D so that Harris can  
2 accept, can put its own fuel in there and accept fuel from  
3 other places.

4 Now, maybe Harris, has, CP&L has an initial plan  
5 to put only some of its own fuel in some of those racks, but  
6 the license amendment application is for both spent fuel  
7 pools and to put racks in both pools. So I'm a bit confused  
8 by his statement about what this case is about.

9 MR. O'NEILL: Mr. Chairman, if I could just  
10 respond to that, if there's any concern.

11 MR. BOLLWERK: Well, wait just a minute. Are you  
12 finished on your points on this? Then we'll --

13 MS. CURRAN: Mr. O'Neill also says that Harris  
14 loses its full core reserve in 2001, I think, and then by  
15 2006, it would have to shut down. But that - it may be that  
16 Harris could get away with less dense fuel racks, if it were  
17 only to address its own needs. It probably could add  
18 another low-density fuel rack or two and, and fulfill all of  
19 its spent fuel storage needs for the rest of its operating  
20 life.

21 The question is, why is it necessary to install  
22 high-density fuel racks in both of these pools? The reason  
23 is so that Harris can accept fuel from other facilities.

24 MR. BOLLWERK: Anything further?

25 MS. CURRAN: No. Mr. O'Neill.

1           MR. O'NEILL: Just a clarification. Certainly the  
2 application, license amendment application would allow CP&L  
3 to commission pools C and D, and install racks in pools C  
4 and D. As CP&L has explained to the Staff, the intent,  
5 because of the limitation of one mBtu of heat capacity would  
6 only allow a small amount of fuel, relatively, to be placed  
7 in - and the place they would put it first is in pool C.

8           As CP&L has explained, both in its application and  
9 the public meetings, there would be campaigns in which, as  
10 needed, racks would be added. At the time this plant was  
11 licensed, the anticipation was that the United States  
12 government would begin taking spent fuel not later than  
13 1998, which would have obviated the need to expand spent  
14 fuel storage at this and most other plants in the United  
15 States. This situation is one created by the Department of  
16 Energy and all plants have had to respond to it.

17           Certainly, this was not exactly contemplated at  
18 the time, but this company and every other licensee, as  
19 encouraged by the Nuclear Waste Policy Act, has taken steps  
20 to ensure on-site spent fuel storage, including  
21 trans-shipment, as indicated in the Nuclear Policy Act of  
22 1982.

23           So, there's why we're here today, is because of  
24 the Federal Government's failure to take the spent fuel, as  
25 it promised in the contract, and as it was directed to in

1 legislation

2 MR. BOLLWERK: All right. I have one other  
3 question for the Staff.

4 One of the things that's come out of the  
5 environmental assessment is a finding of no significant  
6 impact, that's correct?

7 MS. ZOBLER: That's correct.

8 MR. BOLLWERK: Would it be the Staff's intent at  
9 this point to issue a draft finding, or would you go to  
10 final?

11 MS. ZOBLER: We probably would not go with a  
12 draft, probably just issue an EA. I think that's been our  
13 practice in the past.

14 MR. BOLLWERK: But the regulations do provide for  
15 a draft finding of no significant impact?

16 MS. ZOBLER: That's right.

17 MR. BOLLWERK: I'm wondering if that was something  
18 you were contemplating in this instance, or that's --?

19 MS. ZOBLER: I don't believe so, Your Honor.

20 MS. CURRAN: I'd like to ask a question about  
21 that.

22 MR. BOLLWERK: Is it something --

23 MS. CURRAN: I'm not sure it's to the Board, but  
24 maybe. And that is --

25 MR. BOLLWERK: Go ahead.

1 MS. CURRAN: I'm a little concerned, if this, if  
2 this proceeding isn't ongoing, then the County is in a  
3 position where the Staff may on some day issue a finding of  
4 no significant impact and issue this license amendment. And  
5 the County's concerned about having adequate notice of that  
6 because, as is well known, we think an environmental impact  
7 statement is necessary and we would oppose the issuance of a  
8 license until that's done. So I'm concerned about getting  
9 adequate notice of that so that we can protect our rights to  
10 seek appropriate stays and take appeals.

11 MS. ZOBLER: What the staff has done in the past,  
12 and I'm certainly willing to do it, is to provide copies of  
13 the environmental assessment as soon as it's available.

14 MS. CURRAN: But is it correct that when you issue  
15 the environmental assessment, it's possible that you'll also  
16 be issuing the license amendment?

17 MS. ZOBLER: In the past, they've been issued  
18 close in time. The EA always is issued first, of course.

19 MR. BOLLWERK: All right. Anything further on  
20 environmental issues?

21 All right, any Board questions on the  
22 environmental issues?

23 There's one other - then I guess we've concluded  
24 the arguments on the questions of standing and the  
25 contentions. I just wanted to review briefly with the

1 parties a couple of administrative matters.

2 This proceeding, as you're all aware, I think is  
3 subject to Subpart K. On the premise that the Board were to  
4 admit a contention, one or more, if anyone is willing to  
5 speak to this subject, I'll be glad to hear it. If not, I  
6 understand. But there's obviously - any of the parties can  
7 invoke Subpart K, and I'm sort of interested in if anyone at  
8 this point is inclined to do so, if the Board should decide  
9 to admit a admission or contention as appropriate and the  
10 County has standing.

11 MR. O'NEILL: In the unlikely event that there's a  
12 contention admitted, Mr. Chairman, we would seriously  
13 consider Subpart K.

14 MR. BOLLWERK: All right.

15 MR. O'NEILL: But it obviously depends on what  
16 kind of contention and whether we think we can more  
17 efficiently dispose of the matter. And it lends itself to a  
18 quicker resolution or a full hearing.

19 There are questions as to whether or not, to my  
20 knowledge, a full hearing under Subpart K, I believe.

21 MR. BOLLWERK: No, there's been one, actually.  
22 Beckhoff did it a number of years ago, and I think it was  
23 Vermont Yankee perhaps?

24 MR. O'NEILL: I don't think it went to decision,  
25 though. I'm not real sure.

1 MR. BOLLWERK: To my recollection, it did go to  
2 hearing. But I could be wrong.

3 MR. O'NEILL: In any event, it isn't clear, in all  
4 cases, whether it would be faster. So we would have to make  
5 a decision on a case-by-case basis.

6 MR. BOLLWERK: So I take it you are seriously  
7 looking at it then. I don't hear anyone saying, I'm  
8 absolutely not interested in Subpart K. I'm just trying to  
9 get a sense of --

10 MR. O'NEILL: We would seriously consider it  
11 because the purpose of it, obviously, is to try to  
12 accelerate the decision making process.

13 MR. BOLLWERK: One of the provisions in Subpart K  
14 talks about discovery in 90 days. One of the things we've  
15 been using recently is informal discovery. Would that be  
16 something the parties would endorse in part of that period?

17 MR. O'NEILL: If there were --

18 MR. BOLLWERK: You don't have any feelings about  
19 it one way or another.

20 MR. O'NEILL: It isn't clear that that advances  
21 the ball, and again, if you had - let's assume they had one  
22 contention. It may be just quicker to go ahead and just do  
23 it. I'm not sure that informal discovery would advance that  
24 in any way.

25 MR. BOLLWERK: All right.

1 MR. O'NEILL: In some cases, there's some question  
2 as to whether formal discovery and informal discovery simply  
3 aren't duplicative, and it stretches it out. But again, it  
4 depends on the contentions and whether there are experts on  
5 the other side, and whether or not there are documents that  
6 we would want or even care about. If there's purely legal  
7 contention, you know --

8 MR. BOLLWERK: I understand.

9 MR. O'NEILL: It doesn't make a lot of sense.

10 MS. CURRAN: My experience with informal discovery  
11 has been positive. And I think - I agree with Mr. O'Neill  
12 that it would depend somewhat on how many contentions were  
13 admitted. Of course, ninety days might not be - depending  
14 on how many contentions were in, if one did informal  
15 discovery it might not be sufficient. But in my experience  
16 it has been a way to cut through a lot of formality and get  
17 to the issues, get the experts together to discuss some  
18 things. And I think it could be useful in this case.

19 MR. BOLLWERK: All right. I don't hear a no from  
20 you then. I hear you're willing to consider it; you're not  
21 as positive on it, but you're not rejecting out of hand any  
22 --

23 MS. ZOBLER: I really don't have an opinion either  
24 way, Your Honor. I would support whatever.

25 MR. BOLLWERK: I mean, you make a point, Ms.

1 Curran. Maybe it will be, if it's very document-sensitive -  
2 and by that I mean there are a large number of documents  
3 we're talking about - I think that's one of the places where  
4 it seems -- at least in my experience, it helps a lot.

5 MS. CURRAN: Right.

6 MR. BOLLWERK: That the document dumps, if would  
7 prefer, are done informally, rather than exchanging a lot of  
8 paperwork.

9 MS. CURRAN: And with people sitting down and  
10 explaining to each other what they mean, sometimes you can  
11 very quickly get to the bottom of something and figure out  
12 whether you really have a dispute.

13 MR. BOLLWERK: All right. We'll look at that at  
14 the time then.

15 The other thing it talks about is a written  
16 summary. And I guess at this point it's really too early to  
17 talk about how much time the parties would need to look  
18 into, to prepare something like that, given we don't really  
19 know what, if any, contentions are going to be admitted.

20 MS. CURRAN: What regulation are you referring to?

21 MR. BOLLWERK: Subpart K. If you look at 2.1113,  
22 it talks about parties putting together a written summary.  
23 The Board then looks at it and decides whether it can  
24 dispose of it, or there are some issues that need to go to  
25 an adjudicatory hearing.

1           That would be something the parties would have to  
2 do, obviously, and there would be a period of time you'd be  
3 able to prepare that. But, you're point that it may be  
4 premature to talk about those kinds of dates is probably the  
5 correct one.

6           All right. Other than that, I always believe it's  
7 appropriate - I think my colleagues agree with me - to raise  
8 the question of settlement. Is there anything you can,  
9 will, or are thinking about settling, feel free to talk to  
10 each other about it obviously. I think especially at this  
11 point in the proceeding, it sometimes is difficult but not  
12 necessarily fruitless. It has happened in the past that the  
13 parties, after they've talked a little bit, have been able  
14 to narrow things if nothing else.

15           As always, if we can help you, or if it would be  
16 appropriate or useful, have a settlement judge appointed.  
17 We can find someone on the panel, Licensing Board panel who  
18 can help you in that respect. So, I open that possibility  
19 to you. I want to make sure I mention it and ask you to  
20 think about it. And if you think it would be appropriate,  
21 you could talk a little bit about something like that in  
22 terms of some of the contentions or issues. I would  
23 encourage you to do so. All right?

24           Anything my colleagues.

25           MR. SHON: Nothing.

1 MR. LAM: No.

2 MR. BOLLWERK: All right. Anything that the  
3 parties want to bring to the attention of the Board at this  
4 time?

5 [No Response.]

6 MR. BOLLWERK: Then the questions of the arguments  
7 on the contentions and the standing are submitted. Again, I  
8 would appreciate all the efforts of counsel in terms of the  
9 documentation you provided, also the arguments. We found  
10 them very helpful, useful. And my thanks again to both the  
11 administrative folks from Orange County and also the  
12 Sheriff's Department for the help that they gave us in  
13 scheduling this proceeding today.

14 And if there's nothing else, then we stand  
15 adjourned. Thank you.

16 [Whereupon, at 4:27 p.m., the prehearing  
17 conference was recessed, to reconvene at 9:30 a.m., Friday,  
18 May 14, 1999.]

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REPORTER'S CERTIFICATE

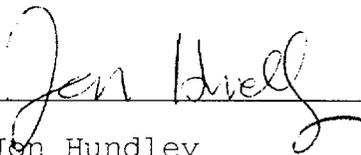
This is to certify that the attached proceedings before the United States Nuclear Regulatory Commission in the matter of:

NAME OF PROCEEDING: PREHEARING CONFERENCE  
CAROLINA POWER AND LIGHT  
COMPANY

CASE NUMBER: 50-400-LA  
99-762-02-LA

PLACE OF PROCEEDING: Chapel Hill, NC

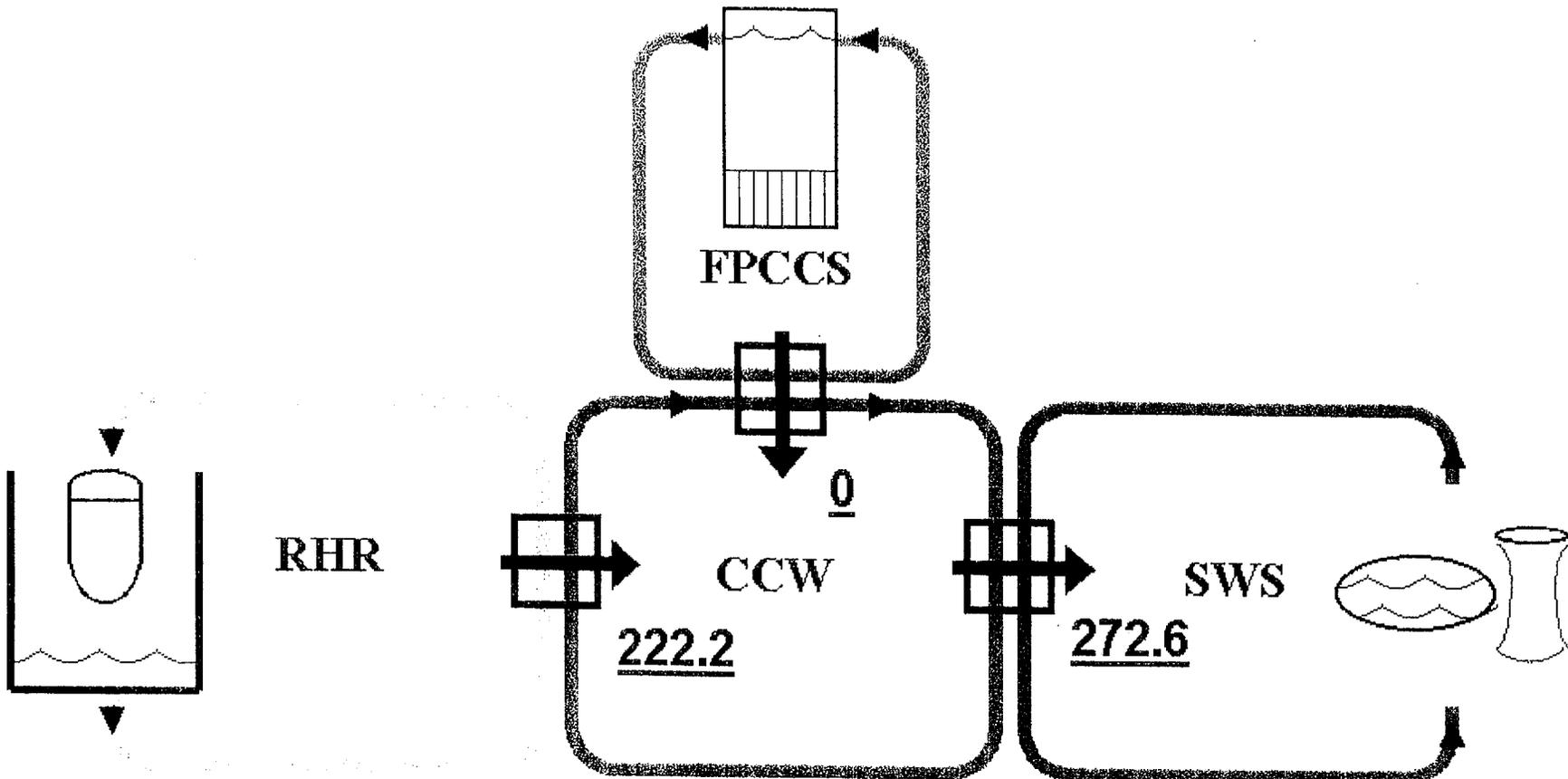
were held as herein appears, and that this is the original transcript thereof for the file of the United States Nuclear Regulatory Commission taken by me and thereafter reduced to typewriting by me or under the direction of the court reporting company, and that the transcript is a true and accurate record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

  
\_\_\_\_\_

Jen Hundley

Official Reporter

Ann Riley & Associates, Ltd.



Post-LOCA CCW Capability

- Beginning of Recirculation Phase



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

April 29, 1999

Mr. James Scarola, Vice President  
Shearon Harris Nuclear Power Plant  
Carolina Power & Light Company  
Post Office Box 165, Mail Code: Zone 1  
New Hill, North Carolina 27562-0165

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION REGARDING AMENDMENT  
REQUEST TO INCREASE FUEL STORAGE CAPACITY - SHEARON HARRIS  
NUCLEAR POWER PLANT (TAC NO. MA4432)

Dear Mr. Scarola:

By letter dated December 23, 1998, you requested a license amendment to revise Shearon Harris Nuclear Power Plant Technical Specification (TS) 5.6, "Fuel Storage," to increase the spent fuel storage capacity by adding rack modules to pools 'C' and 'D.'

During the course of its review, the NRC staff has determined that additional information is necessary to complete its review. The enclosed request for additional information was discussed with your Licensing staff on April 29, 1999. A mutually agreeable target date of June 30, 1999, for your response was established. If circumstances result in the need to revise the target date, please call me at the earliest opportunity.

Sincerely,

A handwritten signature in cursive script that reads "Richard J. Laufer".

Richard J. Laufer, Project Manager, Section 2  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-400

Enclosure: As stated

cc w/encl: See next page

## REQUEST FOR ADDITIONAL INFORMATION

1. Although the burnup criteria for storage in Pools C or D will be implemented by administrative procedures to ensure verified burnup prior to fuel transfer into these pools, an administrative failure should be assumed and evaluation of a fuel assembly misloading event (i.e., a fresh pressurized-water reactor (PWR) assembly inadvertently placed in a location restricted to a burned assembly as per Technical Specifications (TS) Figure 5.6.1) should be analyzed.
2. How will the burnup requirements needed to meet TS Figure 5.6.1 be ascertained for fuel assemblies shipped from other PWR plants (Robinson)?
3. The fuel enrichment tolerance is specified in Section 4.5.2.5 as  $+0.0/-0.05$ . Why isn't a positive tolerance of  $+0.05$  assumed (i.e.,  $5.0+0.05$  weight percent U-235)?
4. Justify that the allowance that was assumed for possible differences between the fuel vendor and the Holtec calculations is sufficient to also encompass burnup calculational uncertainties.
5. The summary of criticality safety calculations shown in Tables 4.2.1 and 4.2.2 indicates that the total uncertainty is a statistical combination of the manufacturing tolerances but do not indicate methodology biases and uncertainties. Were these included?

Mr. James Scarola  
Carolina Power & Light Company

Shearon Harris Nuclear Power Plant  
Unit 1

cc:

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Vice President and Corporate Secretary  
Carolina Power & Light Company  
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Raleigh, North Carolina 27602

Director of Site Operations  
Carolina Power & Light Company  
Shearon Harris Nuclear Power Plant  
Post Office Box 165, MC: Zone 1  
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Resident Inspector/Harris NPS  
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5421 Shearon Harris Road  
New Hill, North Carolina 27562-9998

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Chairman of the North Carolina  
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State of South Carolina  
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Columbia, South Carolina 29211

Mr. Vernon Malone, Chairman  
Board of County Commissioners  
of Wake County  
P. O. Box 550  
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Mr. Mel Fry, Director  
Division of Radiation Protection  
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and Natural Resources  
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Mr. Richard H. Givens, Chairman  
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Mr. Terry C. Morton  
Manager  
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Ms. Donna B. Alexander, Manager  
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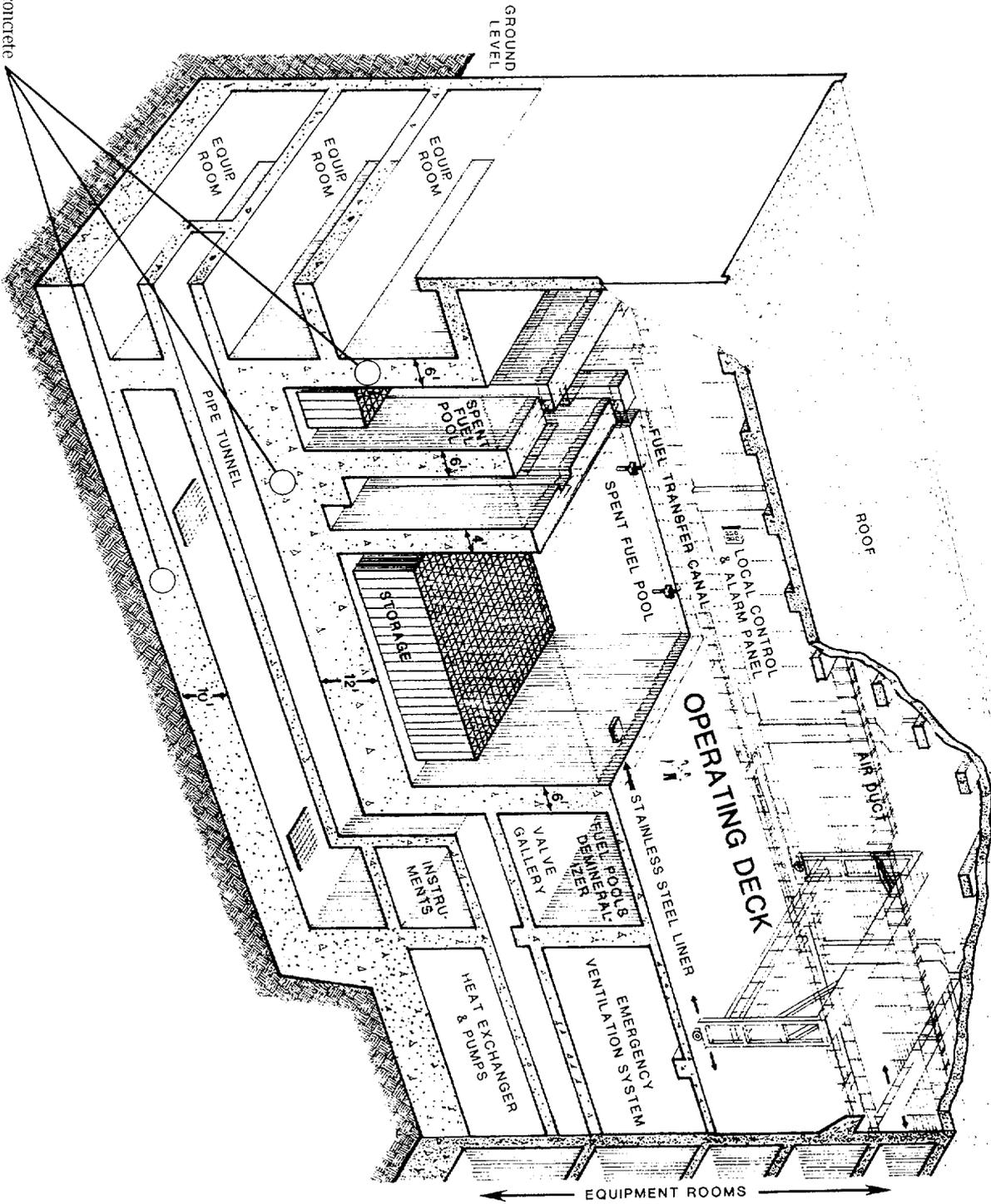
Mr. Bo Clark  
Plant General Manager - Harris Plant  
Carolina Power & Light Company  
Shearon Harris Nuclear Power Plant  
P.O. Box 165  
New Hill, North Carolina 27562-0165

Mr. Johnny H. Eads, Supervisor  
Licensing/Regulatory Programs  
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Mr. John H. O'Neill, Jr.  
Shaw, Pittman, Potts & Trowbridge  
2300 N Street, NW.  
Washington, DC 20037-1128

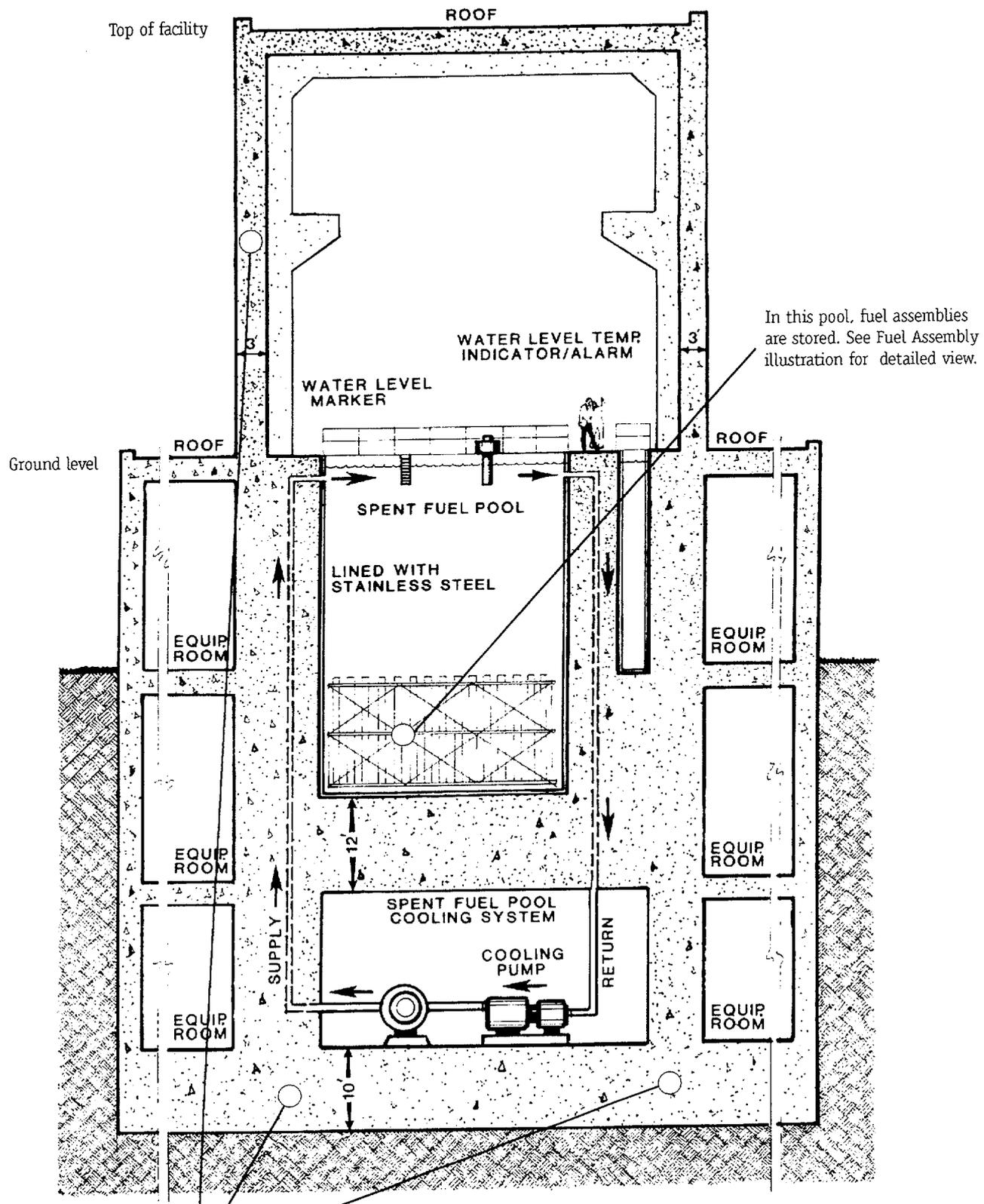
Ms. Diane Curran  
Harmon, Curran, Spielberg, and Eisenberg, L.L.P.  
1726 M Street NW., Suite 600  
Washington, DC 20036

# Cutaway View of one section of used-fuel storage facility at Harris Plant



10/14/47

# Horizontal Cutaway



In this pool, fuel assemblies are stored. See Fuel Assembly illustration for detailed view.

Steel-reinforced concrete