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Docket Number: 52-012/013-COL
ASLBP Number: 09-885-08-COL-BD01

Location: Bay City, Texas

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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ATOMIC SAFETY AND LICENSING BOARD PANEL

IN THE MATTER OF: :

SOUTH TEXAS PROJECT NUCLEAR : Docket Nos.

OPERATING COMPANY : 52-012-COL and

(South Texas : 52-013-COL

Project Units 3 & 4 : ASLBP No.

: 09-885-08-COL-BD01

Tuesday, June 23, 2009

Bay City Civic Center
Room 100, Main Hall
701 7th Street
Bay City, Texas 77414

This matter came on for oral argument, pursuant to notice, at 10:02 a.m.

Before the Licensing Board:

Michael M. Gibson, Chairman

Gary S. Arnold

Randall T. Charbeneau

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APPEARANCES:

On Behalf of the Nuclear Regulatory Commission:

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10 ALSO PRESENT:

11 Mark McBurnett

12 Karen Hadden

13 Elizabeth Brown

14 Stanley Rosenthal

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

10:02 a.m.

1
2
3 JUDGE GIBSON: Good morning. Welcome to
4 oral argument on the combined operating license
5 application for South Texas Nuclear Project's proposal
6 to build and operate two nuclear reactors in this
7 area.

8 First, I would like to introduce the
9 members of our panel. To my right, Judge Gary Arnold,
10 to my left, Judge Randy Charbeneau, and I am Michael
11 Gibson.

12 Next I would like to have introductions of
13 counsel, beginning on my right, your left. Start,
14 please.

15 MR. EYE: Good morning, my name is Robert
16 Eye. I represent the petitioners.

17 MR. FRANTZ: I am Steve Frantz from the
18 law firm of Morgan, Lewis & Bockius in Washington. I
19 represent STP Nuclear Operating Company. To my left
20 is Stephen Burdick. To my right is John Matthews,
21 also of Morgan, Lewis.

22 MS. KIRKWOOD: Sara Kirkwood, NRC staff.
23 On my left is my co-counsel, Jim Biggins. On my right
24 is my co-counsel Jessica Bielecki.

25 JUDGE GIBSON: Thank you. Now that we've

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1 completed our introductions I want to make a couple of
2 brief comments about why we are here and what we hope
3 to accomplish, and then we will proceed to argument.

4 We are here today because South Texas
5 Nuclear Project has applied to the Nuclear Regulatory
6 Commission for a combined operating license to build
7 and operate two additional nuclear reactors, so-called
8 Units Three and Four, near the current location of --
9 to other reactors, Units One and Two.

10 Several individuals -- several groups have
11 challenged the proposed issuance of this combined
12 operating license, and for the sake of convenience
13 we'll refer to them collectively as petitioners, but
14 we mean the groups that have lodged challenges to this
15 application.

16 Normally, we would have -- address both
17 standing and contention admissibility. Let me say
18 first by explanation, by standing we mean that a party
19 must show that the issuance of this license would
20 threaten them with some concrete injury.

21 Now both the applicant, South Texas, and
22 the staff of the Nuclear Regulatory Commission have
23 agreed that the individuals and groups challenging
24 this combined operating license have standing to
25 participate in this proceeding, and consequently we

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1 are going to accord standing to the petitioners here.

2 But the remaining issue that we will be
3 devoting the next two days to is contention
4 admissibility. Before I get to that I want to mention
5 that we have a couple of housekeeping matters to take
6 care of. On Thursday we are going to be doing a site
7 visit, and I thought you might tell us what we should
8 know and how we should proceed. When we should be, I
9 guess, here if that would work.

10 MR. FRANTZ: Judge Gibson, if I may I'd
11 like to introduce Mark McBurnett who will be your
12 guide on Thursday, and he can go over all the
13 arrangements with you.

14 JUDGE GIBSON: Thank you.

15 MR. McBURNETT: Yes, thank you. Yes,
16 I'm Mark McBurnett with the STP Nuclear Operating
17 Company, and I'll conduct the guide, the tour. We
18 have a bus arranged, a small bus, enough to carry
19 everybody in one vehicle. I will pick up here, and
20 you can tell me what time you want to start. I'd
21 recommend as early in the day as you're comfortable
22 with, just because it's hot outside.

23 The tour will drive out to the plant,
24 enter the plant through the east access road, drive
25 around behind Units One and Two. Up on the reservoir

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1 embankment has a good view of the facility from there,
2 both the reservoir and the Unit One and Two, and the
3 general area for Three and Four will be. We'll drive
4 over to the actual location of Three and Four. It's
5 out sort of in the field. From there back over to the
6 -- down to the river, actually, where the blow down
7 structure is, the spillway blow down structure,
8 because there you get a good view of the river. It's
9 the only reason I chose that place.

10 We can certainly take you anywhere else
11 you'd like to go in the facility, but that's -- I gave
12 a good overview. That would take about -- probably
13 about two hours from the time we leave here to the
14 time we get back.

15 The only restriction, I didn't have any
16 plans for anyone to get out of the van, as far as any
17 need for hard hats, or safety glasses, or anything
18 like that. We certainly can; in fact, the areas that
19 we're going in don't require those equipment anyway,
20 so we're not going anything require that. So it
21 should be just normal business casual dress would be
22 fine.

23 We do not photographs and photography on
24 the tour, basically just to keep our security features
25 from being photographed is the primary reason. We're

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1 accommodating anything different from that, I'm
2 certainly -- see what we can pull together, but that's
3 kind of what we had planned. I would recommend
4 starting seven-thirty, eight o'clock if that's
5 convenient for you, but like I say we can do it later
6 in the day too, but that's just because we get out
7 there and back before it gets too hot.

8 JUDGE GIBSON: Okay. Seven-thirty or
9 eight, does that sound good to you guys?

10 MR. EYE: That's fine with the
11 petitioners, Your Honor.

12 JUDGE GIBSON: NRC staff?

13 MR. EYE: That's agreeable to the staff,
14 as well.

15 JUDGE GIBSON: Okay. Well, okay, we'll
16 make it seven-thirty then.

17 MR. McBURNETT: Fair enough.

18 JUDGE GIBSON: Okay, thank you very much.
19 We'll be here at seven-thirty on Thursday morning --

20 MR. McBURNETT: Not a problem, very good.

21 JUDGE GIBSON: -- right here in this
22 parking lot.

23 As I said, we'll be devoting the next two
24 days to the issue of contention admissibility. By
25 contention admissibility, we mean that a party must

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1 show that it has some legal or factual basis for the
2 claim it asserts here, and that the claim is within
3 the permissible scope of matters that the Nuclear
4 Regulatory Commission has been entrusted with.

5 Before we go there, let me ask is there
6 either of the other judges would like to say about our
7 process?

8 JUDGE ARNOLD: No.

9 JUDGE GIBSON: Okay. As we address the
10 issue of contention admissibility, we're going to
11 approach this a little differently than you may be
12 accustomed to from your work with other boards. But
13 because we have a lot of ground to cover and enough
14 time perhaps to get everything done. Hopefully, we'll
15 have enough time, but we do have a lot of ground to
16 cover.

17 What we are going to do is dispense with
18 any opening statements. What I would suggest is if
19 you all have things that you want to be sure and bring
20 to our attention, we will accord you all some time at
21 the end for any kind of matters you would have covered
22 in an opening statement that we do not address during
23 the course of our questioning here. So I think that's
24 what I will do. Rather than giving you a specific
25 amount of time for rebuttal, if something that someone

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1 says, if you have something you need to say, be sure
2 and bring it to our attention. We'll do that, but I
3 assure you by the time this is over you will,
4 hopefully, all feel that you have been afforded ample
5 opportunity to address the points that you believe
6 need to come to our attention.

7 So with that is there anything else you
8 all need to say before we get started?

9 Okay, with that counsel for petitioners I
10 would like to start with Contention Number One.

11 MR. EYE: Very well. Thank you very
12 much.

13 JUDGE GIBSON: With respect to Contention
14 Number One, I would like to know what authority you
15 can provide for the proposition that the permits,
16 licenses, and other government authorizations that you
17 have cited in Contention One need to be obtained
18 before the NRC can issue a combined operating license
19 to the applicant.

20 MR. EYE: The primary authority, Your
21 Honor, is the Atomic Energy Act, inasmuch as there is
22 a requirement in 42 U.S.C. 2133, subpart D, that
23 licenses for these facilities only be issued if they
24 are consistent with the public's interest. I'm
25 paraphrasing what that provision requires.

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1 And it's our position that the issuance of
2 the license should be the last thing that happens, and
3 that all the predicate permits and licenses should be
4 obtained and be in hand and be valid before an
5 operating license is actually issued. It's the cart
6 before the horse problem, as far as the petitioners
7 see it.

8 To do otherwise, we believe, is
9 inconsistent with the public's interest inasmuch as --
10 for example, the ground water requirements, which
11 appear based on the environmental reports to be an
12 integral part of the Units Three and Four operation.
13 If those aren't issues, for whatever reason, and it's
14 our understanding they are pending currently. If
15 those aren't issued, then the whole question about an
16 operating license becomes moot.

17 And so in terms of a proper sequence we
18 think that the last thing that ought to be done is
19 this proceeding, frankly, or this part of the
20 adjudication. And so we believe that it's consistent
21 with the public's interest to proceed in that kind of
22 a sequence rather than what we're involved in now.

23 JUDGE GIBSON: I appreciate the fact that
24 you think it should be that way and that you think it
25 is in the public interest. Do you have any cases you

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1 can refer us to that would support that?

2 MR. EYE: Well, there's -- there's plenty
3 of case law out there that cites that particular
4 provision of the -- of the Atomic Energy Act for other
5 purposes, in terms of determining whether an act or a
6 decision of the Commission is consistent with the
7 public's interest.

8 I don't think that there's ever been a
9 litigation, at least in the courts, that's decided
10 whether in the run up to a COLA there ought to have
11 been all these permits and licenses already obtained.
12 I think that's a -- as far as I can tell, that's an
13 open question, at least in terms of what's been -- in
14 terms of jurisprudence out there that might enlighten
15 us on that particular point. So, again, I go back to
16 the statute, frankly, as the primary basis of our
17 legal authority.

18 JUDGE GIBSON: Let me just ask counsel
19 for the NRC staff and for the applicant, are you all
20 aware of any cases specifically on point with respect
21 to this argument that you must obtain all of these
22 other licenses before the NRC can issue its license?

23 MR. BURDICK: Your Honor, in our answer
24 we cite to some case law in which the Commission's
25 consistently held that the NRC licensing process does

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1 not have to wait issuance of these licenses and
2 permits from other permitting agencies, and we believe
3 that -- that strongly supports our case here. There's
4 no requirement in the regulations.

5 Additionally, the petitioners here cite to
6 42 U.S.C. 2133 (d), which is Section 103 (d) of the
7 Atomic Energy Act, and they claim that that provides
8 a public interest exception or rule, and that's simply
9 not the case.

10 What that section refers to is a
11 determination that the issuance of a license would not
12 be inimical to the common defense and security or to
13 the health and safety of the public. And I'm not
14 aware of anywhere where that's been interpreted to
15 provide this -- this broad public interest perception
16 that they're referring to.

17 So we think this -- that our position's
18 supported by the regulations, by case, and by the
19 Atomic Energy Act.

20 JUDGE CHARBENEAU: Can I get a question
21 for the petitioners?

22 JUDGE GIBSON: Yeah, if we just let the
23 staff finish this point.

24 JUDGE GIBSON: Yes.

25 MS. KIRKWOOD: Your Honor, I believe that

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1 the Commission's decisions in both Susquehanna, CLI
2 0725, and in Hydro Resources, CLI 9816, are on point.
3 Specifically, Hydro Resources, the Commission held
4 that Congress granted us authority merely to regulate
5 radiological and related environmental concerns. It
6 gave our agency no roving mandate to determine other
7 agencies' permit authority. Both of those are cited
8 in the staff brief, as well.

9 JUDGE GIBSON: Okay. Counsel for the
10 applicant, on footnote 73 in your answer you've listed
11 several cases. Are those cases the cases you were
12 referring to?

13 MR. BURDICK: Yes, Your Honor, and also
14 in footnote 72 there's CLI 7445.

15 JUDGE GIBSON: Okay, thank you. Yes, I'm
16 sorry, Judge Charbeneau.

17 JUDGE CHARBENEAU: I had a question. Are
18 there permits and compliance items from the ER in
19 Section 1.2 that you feel are missing?

20 MR. EYE: You mean that haven't been
21 applied for?

22 JUDGE CHARBENEAU: Yes.

23 MR. EYE: Your Honor, not that we know
24 of, and we, to a certain extent, we are in a position
25 where we have to defer to the expertise of the

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1 applicant to determine precisely what they need to go
2 out there and obtain.

3 But irrespective of whether they have
4 failed to get a permit or apply for a permit or a
5 license that's required is -- is not -- that's not our
6 contention.

7 Our contention is the ones that they have
8 applied for, they haven't gotten all of them. So I
9 don't know of any particular permits or licenses that
10 they should get or that they should apply for that
11 they haven't already.

12 Now an exception to that might be
13 something like a Part 71 license that we believe is --
14 is consistent with -- with what ought to be done in
15 this particular adjudication, and although there is a
16 reference to getting a Part 71, I think if it's
17 required that has not actually been applied for or
18 obviously obtained.

19 So it's sort of a nuanced approach to
20 this, inasmuch as there are a number of NRC licenses
21 and permits, for example, that they -- that the
22 applicant says it will apply for, if required. So
23 it's -- that's how we see that particular --

24 JUDGE CHARBENEAU: Thank you.

25 JUDGE GIBSON: Now that would include the

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1 independent spent fuel storage installation license,
2 I take it?

3 MR. EYE: That correct, Your Honor.
4 That's the Part 71.

5 JUDGE GIBSON: What's -- go back to this
6 question of legal authority. Is there any legal
7 authority that you can provide for the proposition
8 that the permits, licenses and other government
9 authorizations need to be obtained before the NRC can
10 issue an independent spent fuel storage installation
11 license to the applicant?

12 MR. EYE: I don't know of any Article III
13 authority, but I believe that, again, I would go back
14 to the Atomic Energy Act, and it seems that in terms
15 of logic and practicality, looking at the
16 circumstances, for example, in a Part 71 situation,
17 it's consistent with the idea that onsite storage
18 spent nuclear fuel is going to be required for a very
19 long time, for an indefinite duration of time, given
20 the circumstances related to off-site capacity.

21 Consequently, we think that it's very
22 consistent with the public's interest and required
23 under the Atomic Energy Act. Granted, there's never
24 been a specific Article III determination of this
25 particular point, but we think it's consistent with

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1 the public's interest that given that the reality is
2 that a Part 71 will likely have to be obtained at some
3 point in the future, and that there is an indication
4 in the applicants' papers now that they've filed, in
5 their environmental report.

6 If you take a look at the site drawing, it
7 calls out in the table a provision for onsite storage
8 and dry casks, and yet if you take a look at that
9 drawing really hard, you can't find that it's
10 specified anywhere on it. So there's a notation for
11 it, but there's no specification as to a particular
12 location.

13 And to us that's just kind of wanting it
14 both ways. On one hand it's saying, yes, it's
15 something we're going -- we'll need, but we're not
16 going to tell you where we're going to put it, and
17 we're not going to plan for it in a deliberate,
18 methodical kind of way that can be addressed at the
19 front end of the license adjudication, rather than
20 some time after the plan is in operation.

21 And it's -- I mean, I don't mean this in
22 a -- in an overly harsh way, but it's a little
23 presumptuous, for example, to assume that a Part 71
24 license will be applied for and obtained. This isn't
25 going up to the teller window and sliding the check

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1 across and getting the cash back because the check was
2 valid. A Part 71 license is a complex, complicated,
3 and potentially very protracted kind of proceeding.
4 And in our judgment it ought to be rolled in to the
5 beginning of this process rather than being put off to
6 something later on.

7 JUDGE CHARBENEAU: And I recognize that
8 you think that it ought to be rolled in and front-end
9 loaded along with everything else. Is there any
10 regulatory authority that would -- that would require
11 the NRC to do that, that you're aware of?

12 MR. EYE: Well, to the extent that
13 there's a provision that there be a specification of
14 the kinds and quantities of radioactive materials that
15 will be generated at the plant, I think you can infer
16 from that that the regulations want to have a complete
17 assessment and inventory of radioactive materials that
18 will be generated and left on site for some duration
19 of time.

20 So to that extent, Part 52 does call out
21 a specification for the kinds and quantities of
22 radioactive materials to be generated, and it is
23 somewhat of an extension of that particular provision
24 to say that it would -- that it would also then
25 require some acknowledgment that those will be left on

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1 site, and that there ought to be a provision for them
2 in the COLA proceedings.

3 But, again, I don't think that there is a
4 specific -- in fact, I'm quite certain there's not in
5 the Article III authority that addresses that
6 particular point.

7 And as we've mentioned in other
8 proceedings, one of the reasons we're here is to make
9 a record so that if that becomes required down the
10 line, we'll have a record to deal with -- for an
11 Article III proceeding.

12 JUDGE CHARBENEAU: Sure.

13 JUDGE GIBSON: Okay. Let me just ask the
14 NRC staff if you could -- if you have a position on
15 this, that there is any requirement that the -- with
16 respect to the independent spent fuel storage
17 installation license, and whether this needs to be
18 rolled in as part of this proceeding, if it would be
19 independent, how -- what -- what your view is of that
20 ?

21 MS. KIRKWOOD: Thank you, Your Honor.
22 The staff, the NRC staff -- the staff would like to
23 clarify. I think the petitioners are referring to
24 Part 72.

25 MR. EYE: I beg your pardon, I think

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1 you're right.

2 MS. KIRKWOOD: Okay.

3 MR. EYE: I beg your pardon, and thank
4 you for that clarification.

5 MS. KIRKWOOD: There is no requirement,
6 there is no regulatory authority to support the
7 position that a Part 72 license needs to be obtained
8 at this time, or indeed even ever. A Part 72 license
9 would allow the applicant, if they so chose, to build
10 an independent spent fuel storage facility, but there
11 are other regulatory mechanisms for them to store fuel
12 as necessary, including the design has a certain
13 capacity for the storage of fuel.

14 JUDGE GIBSON: Okay. Yes, Judge Arnold.

15 JUDGE ARNOLD: Question for petitioners.
16 Now the list of authorizations and permits required
17 are included in the application, as required by 10 CFR
18 51.45(d), and I want to read a part of that.

19 "The environmental report shall list all
20 federal permits, licenses, approvals and other
21 entitlements which must be obtained in connection with
22 the proposed action, and shall describe the status of
23 compliance with these requirement."

24 Now to me that says that the regulations
25 are asking for the applicant for the status. Now if

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1 the status is supposed to be completed, it would seem
2 to me that that would be a -- a-- an unnecessary part
3 of the application. Doesn't make sense to me to have
4 a list of all the permits and just a status complete
5 next to it.

6 How would you answer that? Doesn't this
7 regulation anticipate that they will not be completed
8 at the application stage?

9 MR. EYE: Well, it depends a bit about
10 how you read the word status, I suppose. But on the
11 other hand, is it consistent with the public's
12 interest to proceed along with this -- this
13 adjudication that we're involved in now with these
14 other items hanging out uncompleted -- or incomplete.

15 So, again, I'm not -- I'm not arguing with
16 what the regulation says. What I'm suggesting is that
17 the regulation is inconsistent with the Act.

18 JUDGE ARNOLD: Thank you very much.

19 MR. EYE: You're welcome.

20 JUDGE GIBSON: I'd like to return if I
21 could, counsel for the applicant, to the footnote 73.
22 I noticed that the cases that you cited there span the
23 period of 1974 to 1982. Were there any more recent
24 cases --

25 MR. BURDICK: Your Honor --

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1 JUDGE GIBSON: -- and if not do you have
2 any explanation for why -- why there aren't?

3 MR. BURDICK: Your Honor, the staff
4 identified a couple of additional cases that support
5 that general proposition, but I think also that --
6 that this concept has been established for so long
7 that the NRC regulatory process has always allowed
8 these parallel paths for licensing. So there's just
9 no reason to re-dispute that, you know, at every case,
10 and it's happened that way through the combined
11 licenses, the operating license proceedings, and the
12 construction permit proceedings. This is the way the
13 NRC has been doing it, and I think that's one
14 explanation why those cases are old is that it is
15 established law.

16 JUDGE GIBSON: Okay. You mentioned in
17 your answer that the DOE spent fuel contracts for
18 Units Three and Four have been entered into, but
19 you're awaiting concurrence.

20 Do you have any idea when that might
21 occur?

22 MR. BURDICK: Your Honor, in -- so we
23 addressed that in footnote 79 --

24 JUDGE GIBSON: Right.

25 MR. BURDICK: -- the contention that --

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1 I believe those contracts have been entered into.

2 JUDGE GIBSON: But you're awaiting some
3 concurrence?

4 MR. BURDICK: No, I don't believe so. I
5 believe those --

6 JUDGE GIBSON: That is already occurred?

7 MR. BURDICK: That's right.

8 JUDGE GIBSON: So they are effective now;
9 is that right?

10 MR. BURDICK: That's correct.

11 JUDGE GIBSON: Okay. How about the 401
12 certification?

13 MR. BURDICK: The status of that
14 certification is on February 3, 2009, the applicant
15 requested the Texas Commission on Environmental
16 Quality to -- to provide that certification or a
17 waiver, and so that's -- it's pending. So that
18 request has been submitted and waiting a response.

19 JUDGE GIBSON: Okay. Any idea on when
20 you might get action on that. I mean, what's your
21 best estimate?

22 MR. BURDICK: I don't think we know, but
23 I don't think we see any problem with -- with
24 obtaining that.

25 JUDGE GIBSON: Okay. How about the

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1 ground water well permit. I believe you said you
2 don't anticipate action on that until February 2011?
3 Is that right?

4 MR. BURDICK: Your Honor, I believe that
5 is correct, from the -- I think it's Table 1.2-4, I
6 believe was that. And, you know, I believe there's --
7 there's interactions on those, but I think that's the
8 date specified in the application. And we think
9 that's one of the permits that doesn't have to be
10 obtained prior to issuance of a combined license, and
11 so don't see a concern with that. But we list it as
12 a permit that must be obtained prior to operation.

13 JUDGE GIBSON: Okay. Counsel for
14 petitioners, on page four of your reply you raised the
15 question as to whether it will be necessary to obtain
16 a permit under 10 CFR Part 61 for land disposal of
17 radioactive waste.

18 What specific waste do you envision is
19 going to need to be land disposed?

20 MR. EYE: We are -- we don't know --

21 JUDGE GIBSON: Okay.

22 MR. EYE: -- and it's not specified in
23 the ER, at least as far as we could tell. There is a
24 general reference to it, and we presume it would be
25 waste that's consistent with whatever Part 61 would

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1 limit, but we don't know --

2 JUDGE GIBSON: Okay.

3 MR. EYE: -- because it's not elaborated.
4 There's no, or at least as far as we could tell,
5 there's not elaboration on that.

6 JUDGE GIBSON: Counsel for the applicant,
7 could you apprise counsel for the petitioner whether
8 there's going to be land disposal of radioactive
9 material that you plan?

10 MR. BURDICK: Yeah, we see no need for a
11 Part 61 license and do not plan on obtaining one or
12 requesting one. That license is receiving waste from
13 other sources and other generators, and so it's simply
14 not part of our plans or the application.

15 JUDGE GIBSON: Now certainly I realize
16 you don't anticipate doing that. If for some reason
17 you decided you wanted to do that there would need to
18 be a whole other proceeding; is that correct?

19 MR. BURDICK: Your Honor, you know, I
20 can't foresee how we'd accept waste from another
21 entity. This was raised also in the Bellefonte COL
22 proceeding, in CLI 0903, and there the Commission
23 concludes the COL applicant does not need a Part 61
24 license to dispose of the waste it generates. But as
25 far as the hypothetical question, I guess there would

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1 be a separate proceeding --

2 JUDGE GIBSON: Right.

3 MR. BURDICK: -- but I don't see any way
4 that would happen or be necessary.

5 JUDGE GIBSON: Okay.

6 JUDGE CHARBENEAU: Was that added to
7 Table 1.2-4, just for completion?

8 MR. BURDICK: Excuse me, Your Honor?

9 JUDGE CHARBENEAU: Was that added to
10 Table 1.2-4 -- I believe it's listed, says with a
11 required --

12 MR. BURDICK: If required.

13 JUDGE CHARBENEAU: -- annotation. Is
14 that just down there for completion purposes?

15 MR. BURDICK: When STP prepared this
16 table, they were very conservative and basically
17 listed any -- any possible one that, you know, could
18 even be raised, and I think that's the only reason
19 it's on there.

20 You know, just like the --

21 JUDGE CHARBENEAU: Seventy-two?

22 MR. BURDICK: -- the 72 license is on
23 there, too. It's just an if required, you know, but
24 we don't see any need if that would happen.

25 JUDGE GIBSON: Counsel for petitioners,

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1 I want to postpone the discussion of Yucca Mountain as
2 a disposition point for nuclear waste until we get to
3 Contention Three, but I just want to understand one
4 thing before we go to the next contention and that is
5 are you arguing that the failure to apply for a Part
6 72 license is a failure, an omission on the part of
7 the applicant? Is that essentially what you're
8 arguing?

9 MR. EYE: Yes, I think that that's --
10 yes, I believe that that would be a fair
11 characterization.

12 JUDGE GIBSON: And you are assuming then
13 that Yucca Mountain is not going to be available to
14 accept wastes from the South Texas facilities, and
15 there's no other licensed off-site facility, and so
16 they need to make provision for onsite storage. Is
17 that essentially what you're arguing there?

18 MR. EYE: That's a fair summary, Your
19 Honor.

20 JUDGE GIBSON: Okay. Like I said, we'll
21 get to the whole Yucca Mountain question later. I
22 realize there is some interest in that, but I think
23 it's more appropriately dealt with together with
24 number three.

25 So let's turn to -- before we go to

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1 Contention Two, do either of you have any more
2 questions with respect to Contention One?

3 MR. BURDICK: Your Honor --

4 JUDGE GIBSON: Yes.

5 MR. BURDICK: -- can I -- I have just one
6 point of clarification.

7 JUDGE GIBSON: Surely.

8 MR. BURDICK: The petitioners mention in
9 their answer and then today they discuss a note on
10 Figure 1.1-1 that onsite storage facility is TBD or to
11 be determined --

12 JUDGE GIBSON: Uh-huh.

13 MR. BURDICK: I just wanted to clarify
14 that that note on there is referring to such a spent
15 fuel storage facility for Units One and Two and was
16 essentially just a place holder to reserve room within
17 the site, and that's not referring to anything for
18 Units Three and Four.

19 JUDGE GIBSON: Okay, why? I mean, I'm
20 just curious why was that to be determined for Units
21 One and Two?

22 MR. BURDICK: I think Units One and Two
23 do not have a ISFSI right now, but there potentially
24 could be in the future, whereas for Three and Four we
25 don't expect one at this time, and we'll deal with it

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1 when we need to. But just wanted to clarify that was
2 not a reference for Three and Four.

3 JUDGE GIBSON: Just for the benefit of
4 our court reporter, you used an abbreviation. Could
5 you please explain what that is so that -- I'm sure
6 that sounded like garble to just about anybody else?

7 MR. BURDICK: Sure, Your Honor. So the
8 term ISFSI is Independent Spent Fuel Storage
9 Installation, so it's a location where the spent fuel
10 will be stored in dry casks at the site, if necessary
11 under a Part 72 license.

12 JUDGE GIBSON: Good, okay. Okay, with
13 that could we please turn to Contention Number Two.

14 Counsel for petitioners, my understanding
15 is that you're claiming a couple of things. First,
16 you're claiming that the application fails to make
17 adequate provision for protection of core cooling,
18 containment, and spent fuel cooling in the event of a
19 major fire or explosion. Is that correct?

20 MR. EYE: That's a fair summary. Yes,
21 Your Honor.

22 JUDGE GIBSON: Okay. And is your sole
23 basis for asserting this contention that it is
24 required by two separate regulations, 10 CFR 52.80(d)
25 and 10 CFR 50.54(h)(2)?

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1 MR. EYE: It's certainly 50.54(h)(h) --

2 JUDGE GIBSON: Okay.

3 MR. EYE: -- definitely.

4 JUDGE GIBSON: Fair enough. We'll just
5 say (h)(h). I think that's fair, but that is -- that
6 is -- I just want to make sure that we all understand,
7 we're on the same page of the same hymnal here, okay?

8 With respect to regulatory support, in the
9 answer the applicant has asserted that the final rule,
10 Power Reactor Security Requirement, that govern these
11 provisions were not yet effective when the application
12 was submitted.

13 You don't dispute that, do you?

14 MR. EYE: No. No, on the timing that's
15 correct.

16 JUDGE GIBSON: Okay. And they -- counsel
17 for the applicant has also noted in the answer that
18 the new rules did not go into effect until May 26,
19 2009?

20 MR. EYE: That's correct.

21 JUDGE GIBSON: Okay, and with that then
22 I would like to turn to counsel for the NRC staff and
23 make sure I understand what you're saying when you say
24 that Contention Number Two is admissible only insofar
25 as petitioners are alleging that the applicant failed

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1 to comply with the new aircraft impact provisions of
2 the new rule making. Is that right?

3 MR. BIGGINS: Judge, James Biggins for
4 the NRC staff. I definitely need to clarify that.
5 This contention was not based on the Aircraft Impact
6 Rule, which is a separate rule making from the power
7 reactor safety requirements regulation which was
8 passed, and I note that in the staff's answer.

9 The staff's position specifically in the
10 answer was that the staff identified some portions of
11 this contention as being an attack on the design
12 certification, and that is an impermissible attack on
13 a rule.

14 Some portions were identified specifically
15 as a contention of omission where the applicant had
16 not yet submitted anything to comply with the -- at
17 the time as yet to be effective rule. The rule is now
18 effective. We acknowledged in our answer that it
19 would become effective prior to our hearing today, and
20 since that time and since the staff's answer as well,
21 the applicant has submitted information to comply with
22 the rule, so the staff's position at this point today
23 is that the contention as a whole is inadmissible.

24 JUDGE GIBSON: Okay. So -- so your
25 position now is that it is inadmissible in toto?

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1 MR. BIGGINS: Correct.

2 JUDGE GIBSON: Okay. Now you indicate
3 that there's some material been submitted by
4 applicant?

5 MR. BIGGINS: Notification from the
6 applicant was provided on this docket that they
7 submitted information to comply with the rule. The
8 staff believes that the information that was submitted
9 is sufficient to make the portion of the contention
10 that was a contention of omission moot. And so at
11 this point the staff believes that there remains no
12 material dispute because that information made the
13 contention moot.

14 JUDGE GIBSON: Okay. Let me just ask,
15 have you seen this material that's been submitted?

16 MR. EYE: No, Your Honor, we have applied
17 for access, and it's my understand that that has been
18 granted, based upon correspondence that we received,
19 I think it was Friday or it was late last week, and
20 we're in the process of getting the documentation
21 together so we can actually get our hands on the
22 materials in question.

23 JUDGE GIBSON: Okay. Go ahead.

24 MR. BIGGINS: Judge, I can provide
25 additional clarification on that point. The applicant

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1 -- pardon me. The petitioners filed a request for
2 access to the information which is -- has been
3 determined to be SUNSI material. The staff reviewed -
4 -

5 JUDGE GIBSON: Hold on just a minute.
6 Again, for purposes of our court reporter --

7 MR. BIGGINS: Certainly.

8 JUDGE GIBSON: -- you know it sounds like
9 something that happens when you're out in the sun too
10 much, so would you please --

11 MR. BIGGINS: It certainly sounds that
12 way. SUNSI, S-U-N-S-I, Sensitive Unclassified Non-
13 Safeguards Information.

14 And because the information that was
15 submitted was determined to be SUNSI, there is no
16 public access to it. The petitioners requested access
17 to it. The staff has made a determination that they
18 should be granted access to the information, and I've
19 been in contact with the petitioners, as well as the
20 applicant, and I believe we expect to file a motion
21 for protective order before our deadline comes up to
22 do so.

23 JUDGE GIBSON: And it would be an agreed
24 protective order of some kind that the three of you
25 enter into, or is this a motion that you're going to

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1 be filing that the other parties will then respond to?

2 MR. BIGGINS: No, Judge, this should be -
3 - I anticipate that we'll be able to reach agreement,
4 although we do not have a final agreement at this
5 stage. And if we do reach agreement, this would be a
6 joint motion for entry of a protective order.

7 JUDGE GIBSON: I think that Judge Arnold
8 and Charbeneau may have some questions about this, but
9 before -- you bear with me just a second. It occurs
10 to me that in light of these developments, it may be
11 difficult for us to address all of this today, because
12 the petitioner hasn't even seen the document and
13 certainly, you know, may have some additional concerns
14 about it, and so we may need to take this up
15 subsequently, and if that is the case -- I'm assuming
16 they still have concerns which they may not have after
17 they've seen the material -- we will, I guess, have to
18 revisit this issue subsequently. I don't want to
19 borrow trouble. It may be that everybody's just happy
20 with it, but, you know, it does seem to me that
21 there's probably not a whole lot more we can get
22 accomplished today, although I do think these other
23 judges may have a couple of other questions for you.

24 JUDGE ARNOLD: I do not have any
25 questions on the first part of this contention which

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1 is an omission, but much of this contention seems to
2 be directed to analyses that were performed for the
3 design certification.

4 Could you clarify for me exactly what you
5 view as inadequate in those analyses?

6 MR. EYE: The fire model that was
7 utilized for the -- for the DCD does not anticipate a
8 fire of the magnitude that would occur subsequent to
9 an impact of large commercial airliner into a nuclear
10 plant.

11 As far as I could de-construct the
12 particular fire model in question, it -- it
13 anticipates fires of much smaller magnitude, I believe
14 something in the order of a five foot diameter and a
15 16-foot height, flame height, which is minuscule
16 compared to what might occur with a -- an airliner
17 full of jet fuel that impacts and explodes.

18 So part of our purpose in drawing that
19 particular fire model into question was to make sure
20 that the applicant knew that the petitioners
21 anticipated that the compliance with 50.54(h) (h) would
22 have a fire model that was realistic and consistent
23 with what could be anticipated subsequent to the
24 impact of large commercial airliner.

25 The FIVE -- the so-called FIVE fire model,

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1 F-I-V-E fire model in our judgment was just simply
2 inadequate. That's one aspect.

3 Second, as we started to look at the
4 specific requirements of the new regulatory provisions
5 that anticipate that there will be a means by which to
6 maintain containment integrity, core cooling, spent
7 fuel cooling, what struck us was the very close
8 interrelatedness both in terms of proximity and
9 function of the various parts of the plant that would
10 be required in order to accomplish those three
11 objectives: containment integrity, core cooling,
12 spent fuel cooling.

13 And so, again, we drew this out in
14 anticipation of making sure that the applicant was on
15 notice that in our judgment the underlying DCD simply
16 was not adequate to the task to address the particular
17 provisions of the new regulatory requirements.

18 And we don't fault necessarily the
19 applicant. They made their application based upon
20 what was required at the time, but, frankly, after
21 March of this year, March 29 of this year when the new
22 regulatory requirements were adopted, it was a game
23 changer. It requires an entirely different kind of
24 technique of analysis in order to comply with that
25 regulatory requirement.

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1 As far as I can tell, the NRC had never
2 imposed on an applicant a requirement like is found in
3 the Federal Register that says that there should be
4 mitigating strategies that can address losses of large
5 areas of a plant and the related losses of plant
6 equipment from a variety of causes, including aircraft
7 impacts and beyond design basis security events.

8 That is an entirely different kind of
9 analysis that is now in play, that at the time that
10 the application was submitted did not exist. So our
11 purpose in drilling down into that DCD was to really
12 contrast what had -- what was permissible under the
13 old regime and what is now; in our judgment, required
14 under the new requirements of 50.54(h)(h).

15 JUDGE ARNOLD: In general, we are not
16 permitted to admit a contention that is a challenge to
17 rule making that's in progress. Do you believe there
18 is some mechanism by which we can admit this part,
19 which you admit is a challenge to the DCD?

20 MR. EYE: You bet. The Atomic Energy Act
21 specifically says that these licenses are not supposed
22 to issue if it's inimical to the public's interest,
23 and it seems to us a complete contradiction of that
24 particular provision of the Atomic Energy Act to allow
25 a license to be issued that doesn't fully take into

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1 account fires and explosions that could occur from the
2 impact of a large commercial airliner, and to show
3 fully how large losses at the plant -- in the event of
4 large losses at the plant that the three primary
5 objectives could be achieved.

6 So I think you're right. Generally, there
7 is not an NRC practice and procedure. There's
8 generally not a means by which to go back -- to circle
9 back, if you will -- and look back at the DCD.

10 But this is -- now we're dealing with
11 different regulatory requirements that have a direct
12 bearing on the DCD. So we have to, I think, step back
13 and ask the question how do we deal with this? Do we
14 let the general rule that says an NRC rule making that
15 results in an approved design, reactor design, trump
16 the necessity for rolling in the new requirements
17 under 50.54(h)(h). And in our judgment, the
18 petitioners' judgment, the new requirements have to be
19 integrated into the DCD, and if that requires that
20 this particular body through the COLA adjudication
21 essentially issues an order that says to the applicant
22 go back and modify your DCD so it is consistent with
23 what is required under 50.54(h)(h), well that's what
24 needs to be done.

25 And to the extent that it's -- that it is

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1 a deviation from the normal practice in terms of how
2 to deal with the questions that grow out of a DCD, I
3 think it's completely consistent to indicate that now,
4 given the new requirements that were adopted on March
5 29 of this year, that's -- that's -- that's a
6 necessity.

7 So I think that there's always the Atomic
8 Energy Act to go back and look at to see what Congress
9 intended to have happen here, and when the rules of
10 the game changed on March 29, 2009, and the DCD was no
11 longer consistent with those rules that had been
12 changed, it's time to step back and deal with that.
13 And this is the adjudication where the petitioners
14 have an opportunity to do that. It may not be the
15 only opportunity, but it's the opportunity that is
16 germane now.

17 JUDGE ARNOLD: Thank you. Let me ask --

18 MR. FRANTZ: Judge Arnold, if I could
19 just respond to some of this. First of all, if you'll
20 look at Section 52(a)(2)(d) and 50.54(h)(h)(2) on
21 fires and explosions, those provisions only apply to
22 a COL applicant and to a licensee. They do not apply
23 to design certifications, and so his claim that
24 somehow these new regulations apply to DCD's is just
25 flatly incorrect.

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1 Additionally, I might add, that the DCD
2 does have finality under Section 52.60(d) of the
3 rules.

4 Additionally, if I could respond to one
5 point made by Judge Gibson. To the extent that
6 petitioners do get a copy of the SUNSI report, and
7 they believe that that report is not sufficient to
8 satisfy the new rules, their obligation would then be
9 to submit a new contention challenging the adequacy of
10 that report, rather than the using the existing
11 contention.

12 JUDGE GIBSON: Yeah, I -- you anticipated
13 my next question.

14 Just to be sure for the record, DCD,
15 you're referring to Design Control Document, correct?

16 MR. FRANTZ: That's correct. For the
17 advance boiling water reactor --

18 JUDGE GIBSON: All right. Now I want to
19 -- I don't know the answer to this question, and I'm
20 not suggesting that you all may either, but it just
21 seems to me that it would be useful at this point to
22 see if there is anything that we need to address today
23 about current Contention Two.

24 In light of the fact that you've submitted
25 this additional material, we're anticipating that

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1 petitioner will get to see it. We're anticipating
2 that there will be an agreed protective order entered
3 into with respect to this information, and that then
4 the petitioners will have an opportunity to determine
5 if they need to file a new contention, or if, you
6 know, it's vitiated by virtue of the new information
7 and it addresses their concerns.

8 What I want to try to make clear though is
9 today, I don't want to leave this contention if there
10 is something remaining that we're not going to be
11 having to address anyway in a subsequent contention,
12 and I just would like to know from the staff and the
13 applicant both what their view is of that, because I
14 don't want to put the petitioners in the position of
15 thinking that everything is going to be fair game, if
16 you will, once they get this new information, and then
17 you all come back and say, oh, no, you know, you
18 should have addressed that at oral argument or in your
19 original contention, and, you know, that was a fair
20 game.

21 So I just want to -- that's the only thing
22 I want you to address. Let's start with the staff.

23 MR. BIGGINS: Thank you, Judge. To start
24 with, the staff believes that the board can review the
25 information and has access to it in order to do so, in

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1 order to do so, to determine if the contention is moot
2 at this point, and if it is then the contention cannot
3 be admitted because it would not create a material
4 dispute.

5 The staff believes that it is a separate
6 matter entirely, rather than looking at whether
7 there's an omission or not, which is what the
8 contention states currently. As to whether or not the
9 information submitted is sufficient to meet the
10 requirements of the rule, and that sufficiency matter
11 adds new information that was submitted in this
12 application would be open for a -- the filing for a
13 new proposed contention by the petitioners.

14 And so the board does not have to address
15 the sufficiency question because the contention does
16 not raise a sufficiency question. The board merely
17 has to look at the submitted information to determine
18 whether the contention of omission is now moot.

19 So regarding what can be decided by the
20 board at this point, the board can decide this
21 contention with the information currently on the
22 docket in the application. With regard to the
23 applicants' access to this information, the applicant
24 once they get access could make their position known
25 regarding whether they agree or disagree that this

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1 contention of omission is now moot. Additionally,
2 they can review the information and file a new
3 proposed contention if they deem fit that there is a
4 question regarding sufficiency.

5 JUDGE GIBSON: Okay. I think that's a
6 pretty accurate description of the way you see it, as
7 well?

8 MR. FRANTZ: That's correct.

9 JUDGE GIBSON: Counsel for petitioners,
10 it seems to me that what is going on here is you've
11 submitted a contention of omission. The applicant has
12 submitted the information that would moot, most
13 likely, your contention of omission, but by virtue of
14 the fact they've submitted this new information you're
15 going to be afforded an opportunity to file a new
16 contention attacking the sufficiency of what was
17 submitted and whether it is accurate.

18 Now are you -- are you comfortable with
19 that, because I'm just wondering what else we can get
20 accomplished here this morning with respect to this
21 contention.

22 MR. EYE: I appreciate that, Your Honor,
23 and also appreciate kind of the function that has been
24 suggested by the applicant and the staff.

25 The only reason I hesitate is because we

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1 haven't seen it, and they're right. This is a
2 contention of omission, and what we've seen is a cover
3 letter, and I'm not -- and I want to be very careful
4 here.

5 JUDGE GIBSON: Okay, well let me -- let
6 me just tell you, you don't have to agree that the
7 contention of omission is moot until you see the
8 information, and you may conclude that, no, they still
9 -- you know, what they still didn't do what they were
10 obligated to do. So your contention of omission is
11 still viable, okay? We would certainly like to hear
12 from you with respect to that, but to the extent that,
13 you know, they have basically addressed the contention
14 of omission issue, you still have the opportunity to
15 file a new contention, as they've said on the record
16 here, attacking the sufficiency of the information
17 that's going to be submitted.

18 Now is that okay, and if so can we move on
19 to the next contention?

20 MR. EYE: Your Honor, I think we can move
21 on, but I don't agree that it is necessarily moot and
22 would not agree until we actually see it.

23 JUDGE GIBSON: Well, of course not. Yeah
24 -- no, I understand.

25 Okay, but in light of the fact that we

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1 don't know what that information is, it's really kind
2 of silly to talk about it.

3 MR. EYE: I agree, Your Honor, on the
4 substantive part of it.

5 JUDGE GIBSON: And just so -- just so,
6 you know, you're clear, I'm not in the habit of
7 giving advice to people, but, you know, I'm going to
8 anyway. When you do submit -- if you do end up
9 submitting a new contention, my suggestion is that
10 you're obviously going to be getting a lot of push
11 back if you attack the design control document, so,
12 you know, you may want to try to word your contention
13 so that it doesn't attack that head on.

14 MR. EYE: Appreciate the advice, Your
15 Honor.

16 JUDGE GIBSON: Okay. I think this is
17 probably an appropriate time to take a 10-minute
18 break, and we will be back on the record in 10
19 minutes. Thank you.

20 (Whereupon, the foregoing matter went off
21 the record at 10:50 a.m. and went back on
22 the record at 11:09 a.m.)

23 JUDGE GIBSON: We are back on the record.
24 I would like to focus, if we could, on Contentions
25 Three, Five, and Six. Before we take up, I believe

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1 Judge Charbeneau had a question on number two before
2 we get there.

3 JUDGE CHARBENEAU: Yeah, I'd like to go
4 back to Number Two for a second, if we could. And I
5 just want to get a little bit of clarification of
6 language. On page 21 in the petition -- from the
7 petitioners in their contention, they make a statement
8 that the new design basis for applicants is one that
9 assumes and it goes on.

10 But the main thing that I wanted to focus
11 on is they use the term the new design basis. And
12 then when I look at 10 CFR 50.54(h)(h), they refer
13 under two each license shall develop and implement
14 guidance and strategies intended to -- for
15 maintenance, etcetera.

16 And so the question really is to the
17 staff, do they see 10 CFR 50.54 (h)(h) as requiring a
18 new design basis?

19 MR. BIGGINS: Judge, James Biggins for
20 the staff again. No. The rule, the Power Plant
21 Security Regulation rule as enacted, especially in the
22 statements of consideration along with the rule make
23 it very clear that the Commission was not expanding
24 the design basis for plants, and that the loss of
25 large areas of the plant due to explosion or fire was

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1 a beyond-design-basis event.

2 JUDGE CHARBENEAU: Is that --

3 MR. EYE: We may be splitting
4 nomenclature hairs here a little bit, but the Federal
5 Register notice really anticipates that there should
6 be an analysis of beyond design basis events, and it
7 seems to us if you're going to do a beyond design
8 basis analysis, then it calls into question the
9 original design basis.

10 JUDGE CHARBENEAU: But I thought doing an
11 analysis of the beyond design basis would be beyond
12 design basis, not a new design basis.

13 MR. EYE: Well, I think again we may be
14 splitting hairs over nomenclature here. The new
15 beyond design basis becomes the new design basis,
16 arguably. I mean, at some point we have to
17 acknowledge that the requirements of 50.54(h)(h)
18 impose -- or anticipate, I should say, potential
19 requirements or potential changes to the design basis,
20 to the extent that now the applicants are required to
21 think in terms of beyond design basis.

22 Well, what does that really mean? In a
23 practical sense it means that that which they had
24 originally built into their design basis may no longer
25 be adequate, and that new requirements -- new

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1 regulatory requirements require an amendment to the
2 original design basis. And so that amendment becomes
3 the new design basis.

4 JUDGE CHARBENEAU: But if you look in the
5 regulations, they use the term develop and implement
6 guidance and strategies. Is that the same as
7 requiring a change to the design basis, development
8 and strategies the same as the design basis?

9 MR. EYE: It depends on what those
10 development strategies actually cover, and that's --
11 we're back to we don't know exactly what they've
12 proposed, so it --

13 And it's kind of a function reverse
14 engineering, Your Honor. Start with the objectives:
15 maintain containment integrity, core cooling, and
16 spent fuel cooling -- spent fuel pool cooling. How
17 are those things accomplished?

18 If they can be done within the context of
19 the current design basis, well, okay, fine. We don't
20 know that that -- that that's what's happened in terms
21 of the information that's been submitted that we've
22 not gotten access to yet. But to the extent that the
23 assumption is that there will be a large loss at the
24 plant due to fires and explosions, that's a predicate
25 that has not been utilized in prior design basis AC's,

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1 I should say. And to that extent it's -- it's a new
2 -- it's a new design basis, if you will, to go beyond
3 that which had been assumed before as the design basis
4 and now assume that the predicate is a large loss of
5 plant due to fires and explosions, with the idea that
6 you're going to maintain those three objectives, or
7 achieve those three objectives that I mentioned
8 earlier.

9 So -- but it's very clear that -- that
10 there is an anticipation that that which would happen
11 in terms of a large of loss of plant due to fires and
12 explosions is a beyond basis event.

13 And so it's our contention -- and, again,
14 we don't know what's been submitted and whether it
15 would really address this, but based upon the
16 representations of counsel, it doesn't sound like that
17 they have gone back and made considerations in terms
18 of whether that which they have submitted to satisfy
19 the regulatory requirements of 50.54(h)(h) really
20 addresses the design beyond -- I should say beyond
21 design basis events.

22 MR. BIGGINS: Judge, if I may reply?

23 JUDGE CHARBENEAU: Please.

24 MR. BIGGINS: The staff addresses this
25 issue related to Contention Two, starting on page 18

1 of the answers, but the petitioners' position is in
2 direct contradiction to the statements of
3 consideration made by the Commission in adopting this
4 rule, and I would cite 74 Federal Register at 13957,
5 where it's stated that these strategies are to address
6 a licensee's responses to events that are beyond the
7 design basis of the facility.

8 JUDGE CHARBENEAU: I think I'm fine.

9 JUDGE GIBSON: Okay. Counsel for
10 petitioners, turning to Contentions Three, Five and
11 Six. I assume that you weren't surprised that both
12 counsel for the applicant and counsel for the NRC
13 staff claim that these contentions are barred by the
14 Waste Confidence Rule.

15 MR. EYE: There was no surprise.

16 JUDGE GIBSON: In your petition, you've
17 asserted on page 23 that even if the Waste Confidence
18 Rule had continued vitality and so were a bar to these
19 contentions, which you say it's not, but assuming for
20 the sake of argument it were, but nevertheless it does
21 not apply to these units because they are, you know,
22 these new combined operating license facilities.

23 Now in the applicant's answer on page 22,
24 they assert that in 2007 the NRC amended the Waste
25 Confidence Rule to clarify that it does clarify that

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1 it does apply to combined operating licenses. When I
2 read your reply, I didn't see any specific refutation
3 of that, and I just want to make sure I know are you
4 still maintaining that the Waste Confidence Rule does
5 not apply to combined operating license facilities,
6 even though it may apply to other facilities?

7 MR. EYE: That's correct, Your Honor.

8 JUDGE GIBSON: Okay, and what is the
9 legal authority for your position?

10 MR. EYE: Well, again, we go back to the
11 Atomic Energy Act. The circumstances here I think
12 have to be taken into consideration. The context that
13 this -- these contentions come from is the evidentiary
14 reality the off-site disposition point is not
15 available today.

16 As of March of this year, we have an
17 announcement in front of a Senate committee by
18 Secretary of Energy Chu that the only facility that
19 has ever seriously been contemplated and developed for
20 purposes of off-site disposition of these spent
21 nuclear fuel is essentially off the table. So we're
22 back to essentially the starting point, and even if,
23 as we argue in our papers, even if you make the
24 assumption that somehow someday Yucca Mountain would
25 be available, it will be filled up long before the

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1 wastes that's generated by Units Three and Four would
2 be ready for disposition in an off-site facility.

3 So it's hard for us to see that the two --
4 really the two underlying assumptions here, one, that
5 Yucca Mountain will be available is viable, because
6 it's not now and there's no prospect that it will be,
7 and, two, even if it is it will be filled up to
8 capacity long before the waste that's generated by
9 Three and Four would be ready for off-site
10 disposition.

11 JUDGE GIBSON: Okay, it sounds like your
12 authority then is the statement of the Secretary of
13 Energy in March. I just want to make sure though that
14 there's not some case or regulation you can cite us to
15 that says, no, what we said in 2007 no longer applies.

16 MR. EYE: Your Honor, the statement by
17 Secretary Chu is not the legal authority that we're
18 utilizing. That's evidence to support our legal
19 authority. The legal authority is the Atomic Energy
20 Act. It's hard to see how it squares with the
21 public's interest to generate this material with no
22 outside disposition point that's available.

23 JUDGE GIBSON: Fair enough, but the
24 Commission spoke in 2007, and, you know, their reading
25 of the Atomic Energy Act is that it would include

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1 combined operating license facilities.

2 I just want to make sure that there's not
3 something else out there that I'm not aware of, other
4 than Secretary Chu's statement.

5 MR. EYE: Not yet, Your Honor.

6 JUDGE GIBSON: Okay, fair enough. And
7 we'll get to Secretary Chu's statement in a minute.

8 Let's -- let's set that aside and focus on
9 the footnote 97 of the applicant's answer on page 90
10 -- I don't know where that is, but it's footnote 97.
11 Follow along; I don't know what page that's on.

12 They've -- they've listed seven cases
13 there: Calvert Cliffs, Shearon Harris, Bellefonte,
14 North Anna, Vogtle, Clinton, and Grand Gulf. And then
15 the staff in -- on page 21 of its answer added Duke
16 Lee.

17 And all of those basically were cases
18 where the decision was that the Waste Confidence Rule,
19 which is to say that there will be -- the Commission
20 is confident that there will be waste disposal
21 available. That all of those cases basically said the
22 Waste Confidence Rule applies to combined operating
23 license facilities, and the contention was denied.

24 Now I just want to know if there's any new
25 facts or regulations, other than Secretary Chu's

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1 statement that would make South Texas unique relative
2 to those other eight facilities, that you know of?

3 MR. EYE: Not that I know of, Your Honor.

4 JUDGE GIBSON: Okay. Now on page 21 to
5 22 of its answer, the NRC staff discusses that the
6 Waste Confidence Rule is the subject of on-going rule
7 making and particularly that the Commission issued
8 proposed revisions in October 9, 2008, and they have
9 argued that where there is on-going rule making you
10 cannot challenge those rules, and they cite to Duke
11 Energy decision involving -- how do you say that, O-c-
12 o-n-n-e?

13 MR. BIGGINS: Oconne.

14 JUDGE GIBSON: Oconne Nuclear Station.
15 So I want to know if you can explain why this is not
16 an attack on ongoing rule making, this contention --
17 these contentions, and if it is an attack why it
18 should be permitted here.

19 MR. EYE: Your Honor, I think implicit in
20 these contentions is that the applicant is basing its
21 decisions to go forward with the proposed project on
22 the assumption that they will be able to disposition
23 its high level waste stream off site at some point.

24 It's, again, difficult to square that with
25 reality, both historical and present, and to the

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1 extent that we can make reasoned judgments about what
2 may happen in the near term, particularly as long as
3 Secretary Chu and this administration is in office,
4 it's hard to see where that assumption has a basis.

5 Now, that assumption is based upon the
6 authority from the Commission that says you're
7 permitted to make that assumption. So we really
8 institutionalized in a way the assumption that there
9 will be off-site disposition capacity at some point.

10 JUDGE GIBSON: I think that's a fair
11 statement.

12 MR. EYE: Now, is that a reasonable
13 assumption? Again, based upon the evidentiary
14 predicates we believe it's an unreasonable assumption.
15 There's no evidence to support that, notwithstanding
16 the Waste Confidence Rule and the proceedings that
17 preceded it.

18 So is that consistent with the public's
19 interest? We're back to the same question. Are we
20 going to authorize the operation of Units Three and
21 Four with no present capacity to move high level waste
22 anywhere except out of the reactor core, into the
23 spent fuel pool, and presumably into dry casks at some
24 point on site.

25 And if that's the assumption then we go

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1 back to is there a necessity to get a Part 72 license.

2 So this is -- these -- these contentions
3 in some ways go back to what needs to be done on the
4 site at South Texas, and the Waste Confidence Rule we
5 think is -- it's not reasonable, because it's not
6 based on a firm evidentiary predicate. And if it's
7 not, then it's hard to see how it squares with Atomic
8 Energy Act's requirement that these licenses only be
9 issued consistent with the public's interest.

10 JUDGE GIBSON: Well, I realize that you
11 all are not privy to the deliberations that the
12 Commission is going to be -- is undergoing with
13 respect to this on-going rule making, but it does --
14 it is obvious that Secretary Chu's statements
15 postdated these other decisions. I'm just curious if
16 that has changed in any way the staff's view about the
17 Waste Confidence Rule and the position that it takes?

18 MR. BIGGINS: Judge, the staff's view is
19 that the rule is still in effect and being an
20 effective rule --

21 JUDGE GIBSON: Hold on just one second.
22 Can you all -- can you hear him okay? Okay, good, I'm
23 sorry. I wanted to be sure --

24 MR. BIGGINS: Thank you, Judge. And
25 being an effective rule, the rule is binding on this

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1 board. If the Commission in its revisiting of this
2 rule determines that the rule should be changed in
3 some other way, it certainly has the authority to do
4 so.

5 And only once it changes the rule would
6 that change then affect this licensing action. I
7 would point out, though, that the proposed rule in its
8 language does not contradict the current rule. It may
9 state things a little differently; however, it
10 specifically does not contradict the current rule, and
11 even if it did it does not mean that the petitioners
12 have the opportunity in this adjudicatory proceeding
13 to attack a rule in violation of 2.335.

14 The Commission has made very clear that an
15 adjudication is not the proper form for an attack on
16 a general rule, and they haven't asked for an
17 exception to that in their petition. They wouldn't --
18 they likely wouldn't meet the requirements for 2.335,
19 and so their proper avenue for addressing what they
20 believe the public interest is versus what the
21 Commission believes the public interest is when it
22 adopts rules is through a rule making procedure, and
23 they certainly have had the opportunity to participate
24 in the current on-going rule making.

25 JUDGE GIBSON: Okay. Thank you.

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1 MR. BIGGINS: Judge --

2 JUDGE GIBSON: Yes, go ahead.

3 MR. BIGGINS: I want to make sure I
4 specifically address your question regarding Secretary
5 Chu's comment --

6 JUDGE GIBSON: Uh-huh.

7 MR. BIGGINS: -- and I would point out
8 that Secretary Chu's comment has no legal effect on
9 the effectiveness of a Commission rule. It's up to
10 the Commission to review its rules and determine
11 whether circumstances warrant a change to their rules.

12 So as I believe the petitioners
13 acknowledge today, Secretary Chu's statement is not
14 legal authority regarding relying on which legal
15 authority they're challenging the rules today.

16 JUDGE GIBSON: Right. Okay, thank you.

17 MR. BIGGINS: Thank you.

18 JUDGE GIBSON: I want to focus
19 specifically right now on Contention Number Five.
20 You've asserted there that there will be some public
21 health impacts from de-commissioning this facility
22 that the applicant had not addressed adequately; is
23 that right?

24 MR. EYE: Yes, Your Honor.

25 JUDGE GIBSON: Now the NRC staff has

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1 asserted that there has been a generic environmental
2 impact statement on de-commissioning which concludes
3 that the releases would be small, and applicant's
4 environmental report suggests that radioactive
5 releases associated with de-commissioning these units
6 would be no greater than would occur when you refuel
7 the facility or did plant maintenance, when the plant
8 is open -- operating.

9 And in your reply I didn't see any
10 specific contradiction of those statements. Is there
11 anything that you want to add to what has already been
12 said with respect to provision for de-commissioning?

13 MR. EYE: Thank you, Your Honor. Well,
14 only to point out that, first, the word small is not
15 particularly precise in terms of the impacts. Second,
16 it assumes that there will be some place to take a
17 dismantled large nuclear plant once de-commissioned,
18 an assumption that I believe is unsupported by
19 evidence and is dubious, at best.

20 And that given those -- given what we
21 believe is an attack on those assumptions that we've
22 made through this contention that it is inconsistent
23 with the public's interest to proceed without making
24 some detailed plans for how to deal with, for example,
25 decommissioned waste.

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1 It's -- it's an extraordinary event to,
2 for example, in the Trojan Plant when it changed out
3 its steam generators, they had to load them on a barge
4 and take them up the Columbia River, have them buried
5 up at Richland. It was an extraordinary event. That
6 was steam generators. That wasn't the reactor. That
7 wasn't all the irradiated materials that would go
8 along with a full-fledged decommissioning of a large
9 plant.

10 The decommissioning experiences we've had
11 so far are relatively small units. Right now, we come
12 back, it's sort of the same premise of the contentions
13 that we just addressed a moment ago. There's an
14 assumption that somehow, somewhere we will break
15 historical precedent and there will be a community
16 somewhere or a state that will agree to take on these
17 decommissioning wastes, and we don't see any evidence
18 to support that assumption, notwithstanding the
19 Commission's rules that say otherwise.

20 The Commission is not the final arbiter of
21 this, and to the extent that there is no evidence to
22 support that -- that decision that they've made or the
23 rule that underpins the decision, and we thinks it's
24 an unreasonable decision.

25 JUDGE GIBSON: Okay. If I could turn to

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1 Number Six. You've raised a concern about whether
2 federal or a state governmental agency may need to
3 step in as a sort of receiver once the plant ceases to
4 operate.

5 Is that basically okay?

6 I want to ask the NRC staff. You all have
7 asserted, if I understand correctly, that this can't
8 happen because the owner of the plant is required to
9 own and possess the facility after it ceases to
10 operate, and then once it's decommissioned the owner
11 has to apply for a license to terminate under 10 CRF
12 52.110(I). And that's only going to be granted when
13 the NRC is satisfied that the plant's been properly
14 dismantled and that it has decommissioned the facility
15 in a way that residual radiation meets established
16 rules. Is that a fair characterization of what you've
17 said?

18 MR. BIGGINS: Yes, Judge.

19 JUDGE GIBSON: Okay. And you've also
20 asserted that it would be impossible to meet those
21 criteria if there were any spent fuel or high level
22 wastes on the site. Is that right?

23 MR. BIGGINS: One point of clarification.

24 JUDGE GIBSON: Okay.

25 MR. BIGGINS: That is correct to the

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1 extent that we're talking about the Part 52 COL
2 license scope. If there is one factual scenario, if
3 there were a separately licensed -- if ISFSI -- that
4 would under a separate license have its own
5 decommissioning requirements, and so theoretically it
6 is possible at that separately licensed location for
7 spent fuel to remain.

8 JUDGE GIBSON: Okay. Under the -- and
9 ISFSI, again, is, for purposes of our court reporter -

10 -

11 MR. BIGGINS: A Part 72 license, I-S-F-S-
12 I.

13 JUDGE GIBSON: Which stands for?

14 MR. BIGGINS: Independent Spent Fuel
15 Storage Installation.

16 JUDGE ARNOLD: All right. Now, in your
17 reply I don't think you had the benefit of the
18 qualification he made, but in your reply I didn't see
19 anything that you had responded to what they had said.

20 I wonder is there anything else you want
21 to add?

22 MR. EYE: I didn't see anything in their
23 answer that really changed the underlying premise for
24 this contention.

25 JUDGE GIBSON: Uh-huh.

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1 MR. EYE: It still does not grasp the
2 reality that the -- the -- we're predicting a number
3 of things here. One, we're predicting that the
4 business entity that is the applicant now will be a
5 viable business entity in the indefinite future, and
6 we are having institutions in our society that have
7 been viable business enterprises for generations that
8 have gone by the way in a remarkably fast fashion in
9 the last year of 18 months.

10 And I think that in that regard it's
11 prudent to think in terms of a defense in depth. What
12 happens in the event that this particular licensee is
13 no longer able to maintain its viability as a business
14 entity -- or this applicant, I should say?

15 And that really does require some more
16 kind of planning, some more coordination, because it's
17 not -- this particular responsibility would be an
18 enormous one, to take over tons of spent fuel. I
19 don't that there's an institution in our society
20 that's really set up to do it other than a
21 governmental entity.

22 What happened when other business
23 enterprises in our society recently failed? You've
24 seen the government step in, in one form or fashion.
25 And this contention simply says that things change,

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1 that business models that seem viable now may not be
2 in the future, based upon events that may or may not
3 be within their control. And if not, who does step
4 in, who is there to provide the safety net?

5 And it seems to us that that's not an
6 unreasonable question to ask, given circumstances.
7 And it's not the recent economic crisis, I mean, we've
8 gone through cycles like this a number of times in our
9 country's history, and each time it's required
10 responses to major dislocations. And now we're having
11 to deal with a potential dislocation that would
12 include management of tons of spent nuclear fuel.

13 So in that regard this is a contention
14 that really is attempting to anticipate a reasonable,
15 what believe are reasonable circumstances that could
16 arise and, if so, what are the implications? Who will
17 be there to step in and provide that kind of
18 management of these materials indefinitely, or an
19 indefinite duration of time?

20 MR. STOCKS: Do you all care to respond
21 to that, Applicant, not that you have to. I just
22 wondered is there anything you want to say in
23 response?

24 MR. BURDICK: Sure, Your Honor. I'll
25 start by saying all the arguments we've just heard are

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1 not in the petition. I think it's important to step
2 back and look at what was in the petition, and in
3 Contention Six the petitioners state that the
4 environmental impacts of the government containing
5 control of this spent fuel should be discussed in the
6 environmental report.

7 Well, it directly contradicts the Waste
8 Confidence Rule. 10 CFR, Section 51.23(b) states that
9 no discussion of the environmental impacts of spent
10 fuel storage needs to be included in environmental
11 report.

12 And I think it's as simple as that, that
13 that attack on that regulation is contrary to 10 CFR
14 2.335.

15 JUDGE GIBSON: Okay.

16 MR. BURDICK: Thank you.

17 JUDGE GIBSON: You all wanted to say
18 something else. Yes, NRC staff?

19 MR. BIGGINS: Yeah, thank you, Judge. I
20 would also reiterate that counsel for the petitioners
21 seems to be raising new issues today.

22 To the extent that he's talking about the
23 viability of these companies, where the contention
24 itself specifically states that it's talking about
25 after the operating license is terminated and post-

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1 closure activities have been completed. And so the
2 staff answer addresses that contention as it's stated
3 in the petition.

4 To the extent that today he's raising new
5 questions regarding what happens if a company's
6 viability is called into question or it goes out of
7 business, the Atomic Energy Act itself allows the
8 Commission the authority to take control of the
9 nuclear material on site, in the Atomic Energy Act
10 sections 186 and 188.

11 And if they had raised that as an issue in
12 their petition, the staff obviously would have
13 provided, you know, a more detailed response, but I
14 don't believe that question is even raised in this
15 petition.

16 JUDGE GIBSON: Okay.

17 MR. BIGGINS: Thank you.

18 JUDGE GIBSON: Did you have some
19 questions?

20 JUDGE ARNOLD: Yes, I do.

21 JUDGE GIBSON: Okay, Judge Arnold,
22 please.

23 JUDGE ARNOLD: You have -- for the
24 petitioners, concerning this group of contentions, you
25 have asserted that the Waste Confidence statement is

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1 not applicable to COL plants. Is your argument
2 strongly dependent upon that?

3 MR. EYE: I think that's part of it. I
4 mean, I don't know -- I can't put a percentage in
5 terms of how to attribute it. But, yes, I think that
6 that's -- it's, yes, the Waste Confidence Rule we
7 believe is an unreasonable statement at this point.

8 JUDGE ARNOLD: Judge Gibson earlier
9 mentioned a statement in 2007 concerning the Waste
10 Confidence Rule, and let me quote from the applicant's
11 response in a footnote. They quote that statement:

12 "The NRC is revising 51.23(b) and (c) to
13 indicate that the provisions of these paragraphs also
14 apply to combined license."

15 Now 51.23 is the Waste Confidence Rule;
16 (b) has to do with the -- the spent fuel stored -- the
17 independent spent fuel storage installations, and (c)
18 is also about spent fuel storage. But (a) is the
19 portion that says we're going to someday a repository
20 to take spent fuel.

21 And this 2007 statement refers to updating
22 (b) and (c) to make sure they're applied to combined
23 licenses, but it neglects (a) which seems to be the
24 relative of the Waste Confidence statement. So let me
25 ask you, do you think that provides support for your

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1 argument that the Waste Confident statement is not
2 applicable or at least -- go ahead.

3 MR. EYE: Let me clarify. We believe
4 it's not applicable because it's not based on firm
5 evidentiary grounds. I understand what you read --
6 what you read that the Commission is taking the
7 position that the Waste Confidence Rule is something
8 that the applicants can benefit from or can take
9 advantage of.

10 What we're suggesting is that's not a
11 reasonable position for the Commission to take, when
12 there's not a firm evidentiary basis to adopt the rule
13 in the first place. So the unreasonableness ripples
14 through and has implications for the combined license
15 application.

16 So I know what those provisions say, but
17 that doesn't change the lack of an underlying
18 evidentiary predicate to support it.

19 JUDGE ARNOLD: Okay, thank you. Let me
20 ask the applicants, since it was in their response.
21 That statement you quoted specifically says (b) and
22 (c) and I'm wondering about (a). Is (a) applicable to
23 COLA's?

24 MR. BURDICK: That's correct, Your Honor.
25 In the Section 51.23(a) I think it already includes

1 the language "any reactor," and I think there was no
2 need for the Commission to update that provision,
3 whereas in (b) and (c) those specifically identify the
4 types of licenses in the rule language itself, and
5 that's why the Commission had to change that in 2007,
6 to provide a consistency throughout the regulations
7 and to insert the language combined license. So I
8 think that's -- that's the reason for that. But I
9 think (a) didn't have to be revised because it already
10 applies to any reactor.

11 MR. EYE: Judge, may I just respond to
12 that briefly?

13 JUDGE ARNOLD: Sure.

14 MR. EYE: This is a -- this is a question
15 in terms of interpreting what any reactor -- the term
16 any reactor means. It's our position that any reactor
17 could just as easily mean and would be just as
18 reasonable to say that it was any reactor extant at
19 the time that the Waste Confidence Rule, as you just
20 read, was adopted. There's no language in there that
21 says any reactor that will be built.

22 So it's an interpretation of that
23 particular term, and it's our position that -- that
24 that -- it's just as reasonable to interpret it as
25 those reactors that are in existence today, rather

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1 than those that are anticipated to be built and
2 operated in the future.

3 JUDGE GIBSON: Judge Charbeneau?

4 JUDGE CHARBENEAU: Yes, I think the
5 petitioners do actually make that statement in their
6 contention. On page 24 where they say that it must be
7 assumed that this revised finding applies only to
8 reactors currently operating.

9 But when you look in the Federal Register
10 and discussion of the Waste Confidence decision they
11 state that the Commission has decided to again
12 undertake a review of its Waste Confidence finding, as
13 part of this effort to enhance the efficiency of
14 combined operating license proceedings for
15 applications for nuclear power plants anticipated in
16 the near future.

17 So they really are clearly looking towards
18 the future plants, as well.

19 MR. EYE: We think that's unreasonable,
20 and it's inconsistent with what the Atomic Energy Act
21 otherwise requires.

22 MR. BURDICK: Judge Arnold, if I may make
23 one more point to your question. Section --
24 subsection (b) was revised -- well, that section says
25 that the only environmental impacts of the spent fuel

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1 storage needs to be addressed in the combined license.
2 I think it would be difficult to read that subsection
3 without combining with subsection (a), which concludes
4 that a reasonable assurance that a spent fuel
5 repository would be available. It would be strange to
6 say you don't have to address the impacts if you're
7 not also saying that there's reasonable assurance the
8 repository will be available. Thank you.

9 JUDGE GIBSON: Okay, I would like to now
10 go back to where we left off in Contention One.

11 Just a minute. If you could please not do
12 any flash photography, we would appreciate that.
13 Thank you.

14 Now you've asserted that the onsite cask
15 storage is going to be needed it should be addressed
16 in this proceeding because the plant can integrate
17 plant construction and operations in such a way that
18 will be compatible with the Part 72 license. Is that
19 a fair characterization?

20 MR. EYE: It is, Your Honor.

21 JUDGE GIBSON: Now I'm curious, I didn't
22 -- I'm not sure if you addressed this earlier, but I
23 want to make sure. Is there currently any dry casks
24 storage for the existing units?

25 MR. EYE: There is not, Your Honor.

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1 JUDGE GIBSON: Okay. Do you know if any
2 is planned?

3 MR. BURDICK: I think it's under
4 consideration, depending on the needs of the plant.

5 JUDGE GIBSON: If dry cask storage is
6 needed, would it be likely to be integrated for all
7 four units?

8 MR. BURDICK: That's one possibility, but
9 I think at this time it's unknown, you know, in the
10 regulations would allow them to be separate or
11 combined, and that's simply unknown at this time.

12 JUDGE GIBSON: If it is -- you know, I
13 obviously have never designed a nuclear power plant,
14 but I'm just curious, is it -- it would just -- it
15 sounds like it would be logical thing to do if you
16 were going to integrate that in.

17 Is that a complicated part of the planning
18 process, or is that something that can be very easily
19 done on the fly? I'm just curious how one goes about
20 making those plans. And if you are going to integrate
21 all four of them, I'm just curious if that would be
22 something that would need to be addressed now or
23 something that would be addressed later.

24 MR. BURDICK: Well, Your Honor, I think
25 I could definitely say that it doesn't need to be

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1 addressed in this proceeding. STP is not seeking a
2 Part 72 license in any manner in this proceeding right
3 now. As far as combining the -- the spent fuel
4 storage facilities for both sites, I -- you know, I
5 think it's a possibility, and it is something that
6 goes into the planning, you know, based on the land
7 use requirements, and it's something the company
8 obviously will consider, but they have not reached the
9 point where they need to apply for a license at this
10 time.

11 And our position with Contention One, same
12 with all the permits and authorizations, it's simply
13 not necessary, and it's outside the scope of this
14 proceeding.

15 JUDGE GIBSON: Okay.

16 MR. BIGGINS: Your Honor, may the staff
17 address your questions, as well?

18 JUDGE GIBSON: Please.

19 MR. BIGGINS: Thank you. The staff
20 believes what the petitioners overlook relating to a
21 Part 72 license authorization is that a Part 72
22 license has already been issued a general license upon
23 which any power reactor applicant may rely was issued
24 by rule in Part 72, subpart k.

25 Specifically 72.210 codifies the NRC

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1 Commission's authority for a power reactor operator to
2 store waste onsite as long as they meet the
3 requirements of subpart k. For example, they have to
4 perform a written evaluation showing that there are no
5 unreviewed safety questions or changes to their
6 technical specifications that would require a license
7 amendment.

8 They have to provide adequate safeguards.
9 They have to notify the NRC prior to, and with the
10 addition of each cask that they store, and they have
11 to maintain the appropriate records.

12 This rule, subpart k authorization, was
13 adopted at 55 Federal Register 29181, where the
14 Commission specifically points out that the safety
15 analysis and the environmental review have both been
16 completed for this general license.

17 So, again, any power reactor operator may
18 rely on this general license for the storage of the
19 casks on their site, without having to apply for a
20 specific Part 72 license.

21 JUDGE GIBSON: Okay, so do I understand
22 correctly then that there would not be a -- there
23 would not be an opportunity then for the petitioners
24 to challenge that, by virtue of the fact that there
25 has been a generic EIS and safety report for dry cask

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1 storage?

2 MR. BIGGINS: Let me be -- clarify for
3 the record, it was not an EIS. It was an
4 environmental assessment.

5 JUDGE GIBSON: Okay.

6 MR. BIGGINS: Okay?

7 JUDGE GIBSON: Okay.

8 MR. BIGGINS: And because the issue was
9 generically determined by rule making, it could not be
10 challenged in this adjudication. It could be
11 challenged through a petition for rule making.

12 JUDGE GIBSON: Okay, fair enough. But if
13 the -- I just want to make sure I understand and the
14 petitioner understands -- petitioners understand where
15 they stand here.

16 If it were determined subsequently that
17 there was going to need to be dry cask storage for
18 this facility or Units One, Two, Three and Four if
19 they decided to integrate it, would there be a license
20 issued for that that these petitioners or other
21 petitioners would have an opportunity to contest that
22 license or not?

23 MR. BIGGINS: It depends on the very
24 specific facts of the situation, Judge.

25 JUDGE GIBSON: Okay, give us the facts

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1 that would apply to this facility.

2 MR. BIGGINS: Let me give you some
3 scenarios. Certainly. If all of the safety and
4 environmental issues have already been addressed by
5 the general -- by general license in the rule, there
6 would be no additional adjudication, and the
7 statements of consideration are very clear on that
8 matter.

9 If there are unreviewed safety issues,
10 safety concerns or unreviewed environmental matters,
11 those would have to be reviewed prior to the licensee
12 being able to store the fuel onsite. And in that
13 situation if there are unreviewed safety matters, it
14 would likely require a license amendment which would
15 be subject to a separate adjudication.

16 Now in another scenario, the applicant can
17 seek to do something outside of what that general
18 license already authorizes, and if they do that it
19 would be akin to seeking a specific Part 72 license,
20 which would be a separate licensing action by the NRC
21 and would be subject to an adjudication in that
22 instance.

23 JUDGE GIBSON: Okay. Now the things that
24 could be adjudicated are only things that have not
25 already been addressed in these -- the generic

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1 environmental assessment and in the generic safety
2 report that you refer to, correct?

3 MR. BIGGINS: If the applicants came in
4 for -- under the general license --

5 JUDGE GIBSON: Right.

6 MR. BIGGINS: -- for authorization, any,
7 again, unreviewed safety matter or environmental
8 matter would be subject to adjudication, particularly
9 because they would not have been resolved generically
10 through the rule making process.

11 JUDGE GIBSON: Okay, and these could be
12 site specific environmental issues that would not have
13 been addressed in a generic environmental report, for
14 example?

15 MR. BIGGINS: Correct.

16 JUDGE GIBSON: They could be things that
17 would be unique to this facility that would be
18 different from the ones that are the subject of this
19 generic rule making?

20 MR. BIGGINS: Correct.

21 JUDGE GIBSON: Okay. Got that?

22 MR. EYE: I do have that, Your Honor.

23 JUDGE GIBSON: Okay, I just -- that's
24 okay. You wanted to say something else.

25 MR. EYE: I did, Your Honor.

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1 JUDGE GIBSON: Okay.

2 MR. EYE: Your Honor, if I understand
3 statement of counsel, there is -- there are certainly
4 circumstances that under subsection k would require a
5 separate proceeding to determine whether or not a dry
6 cask storage installation would be permissible.

7 We could get very specific about this.
8 For example, STP sets part on the banks of the
9 Colorado River. Just where in relation to that river
10 will this facility sit? What will be the setback?
11 What will be the access? What will be the security?
12 These are very site specific questions that are not
13 touched on in a generic proceeding where an EA is done
14 -- EA, environmental assessment, where essentially an
15 environmental assessment -- you may have seen them
16 before -- they're boxes that are checked. Very little
17 discussion, very little narrative in an EA. It's not
18 like an EIS.

19 And accordingly to the extent that there
20 is, again, no prospect for getting this spent fuel off
21 site, why not address it now, those very site
22 specific questions. There is some anticipation that
23 this is going to have to be done, simply by looking at
24 the site drawing where they call out a dry cask
25 storage unit. But it's no place specified on the

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1 drawing itself.

2 So we think that the applicant is really
3 trying to get the benefit of the generic proceeding in
4 a site specific circumstance, and that doesn't match.
5 So, again, under the very provisions that counsel
6 specifies in subpart k -- or subsection k, we think
7 that this ought to be taken up now, rather than wait
8 down the line and assume that this Part 72 license can
9 be obtained. There's no guarantee that they're going
10 to get a Part 72 license if they apply for it. It's
11 not a -- it's not a sure thing.

12 Why get down the line where you don't have
13 any more capacity in the spent fuel pool, you don't
14 have any place to put spent fuel rods except in the
15 dry cask storage. And then we do the license
16 proceeding under Part 72 in kind of a crisis mode
17 instead of now, in a methodical, deliberative way that
18 rolls these requirements into the plant's -- what the
19 plant will anticipate -- they anticipate it's going to
20 look like and function like. Do it now.

21 JUDGE GIBSON: Okay. I think we
22 understand your -- your -- it's -- they shouldn't be
23 segmenting this argument, okay?

24 MR. EYE: Yes, Your Honor.

25 JUDGE GIBSON: But I think we've also

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1 heard from the applicant that they're not doing dry
2 cask storage onsite now, that they don't plan to do
3 it, that it is under consideration as a possibility,
4 and that that's where we stand, and I understand the
5 staff to say that under those circumstances there is
6 no obligation to apply for such a license now because
7 it's too speculative, and that only -- and then when
8 they do it will be subject to the restrictions that
9 they laid out. I think that's the staff's position.

10 MR. BIGGINS: Well, and specifically,
11 Judge, that the license has already been issued. It
12 is a general license. It's already been issued.

13 JUDGE GIBSON: Right, right, I
14 understand. But there could be site specific
15 considerations that he's raised and -- so -- but I
16 just want to make sure we understand this. I want to
17 make sure you understand where this is coming from.

18 MR. EYE: Thank you, Your Honor.

19 JUDGE GIBSON: Anything else we need to
20 say about dry cask storage right now, so we can get on
21 to the next contention?

22 I'd like to turn to Contention Four now.
23 In Contention Four, you -- counsel for petitioners you
24 have questioned whether the applicant's calculation of
25 radioactive releases associated with ultimate disposal

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1 of the South Texas wastes at Yucca Mountain is
2 accurate, and you claim it's not possible that the
3 radioactive releases could be zero.

4 Is that a fair characterization of what
5 your contention is?

6 MR. EYE: Yes, Your Honor.

7 JUDGE GIBSON: Now both the applicant and
8 the NRC staff have challenged this contention on the
9 ground that the applicant was merely following the
10 formula that was laid out for it in Table S-3 of 10
11 CFR 51.51(b), and that that formula yields zero.
12 Therefore, they contend, your contention is really a
13 dispute with the rule and not with the applicant's
14 application of the rule, and so this contention is
15 outside the permissible scope of this proceeding.

16 Now I note in your reply you did not
17 attempt to refute their position. I'm wondering is
18 there something else that we need to know here about
19 that?

20 MR. EYE: Your Honor, only that -- again,
21 this is what we consider to be a rule that lacks sound
22 evidentiary underpinnings, and to that extent we don't
23 believe it can stand close scrutiny under the Atomic
24 Energy Act's requirements that these licenses be
25 issued only and consistent with the public's interest.

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1 We find it contradictory that the
2 applicant and the NRC would embrace a zero release
3 standard or zero release assumption when there are
4 specific radiation releases anticipated by, for
5 example, the EPA. It's hard to reconcile those two
6 positions, and that's the origin of our contention.

7 You have a collision course here between
8 a zero release assumption and very specific EPA
9 proposed dose limits that do anticipate releases.
10 Which is it?

11 And, again, we took a look at the
12 environmental report. We see this assertion of zero
13 release that, again, has its origins in NRC rule
14 makings and so forth that get contradicted by an EPA
15 rule making, and we're left to try to reconcile this
16 apparent contradiction.

17 JUDGE GIBSON: Okay, let me -- before we
18 get to that I just want to make sure I understand.
19 Isn't the EPA standard one that is setting an
20 acceptable limit, an acceptable standard, as opposed
21 to whether there will be a release?

22 Isn't that -- I mean, I realize that, you
23 know, maybe you're saying the EPA rule assumes there
24 will be, but I just want to make sure that we're
25 talking apples and apples here. EPA is setting

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1 standards for what is acceptable, and I think what the
2 applicant has done here has applied a formula that is
3 in this table that essentially assumes no release. Is
4 there something I'm missing or -- you're in agreement
5 with that, aren't you?

6 MR. EYE: I'm in agreement with the basic
7 conceptual sequences that you laid out. The problem
8 is that the EPA's rule making that is trying to
9 determine dose limits if in fact there's not going to
10 be any release would be unnecessary. Nobody's ever
11 suggested that that's an unnecessary proceeding.

12 So it's kind of one way or the other. If
13 there are going to be no releases and that's a
14 certainty that in fact everybody can rely on, then why
15 go through a separate rule making where there are
16 assumptions about releases. And, again, the
17 petitioners are left to try to reconcile these
18 positions, and we bring those to you in the form of
19 this contention.

20 JUDGE GIBSON: Okay. Counsel for the
21 staff, did you all want to have anything to add to the
22 -- this issue of fitting together the EPA standard and
23 the assumption in Table S that there's not going to be
24 a release?

25 MR. BIGGINS: Judge, yes, thank you. I

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1 don't believe that the mere fact that the EPA
2 promulgated a standard specifically contradicts the
3 NRC regulation, and, again, as reiterated in our
4 answer this contention essentially amounts to an
5 attack on that regulation which is impermissible in
6 this adjudicatory proceeding.

7 However, I would point out to the extent
8 that the petitioners continually refer back to the
9 Atomic Energy Act for their authority here, what
10 they're doing is they're mixing an environmental
11 matter regarding whether we need to look at impacts
12 under NEPA with the safety authority in the Atomic
13 Energy Act.

14 And so in mixing those two you don't end
15 up with a proper regulatory basis for challenging the
16 NRC regulation essentially that there will be no
17 releases.

18 JUDGE GIBSON: Okay. I would suggest
19 that before we get to the next contention, unless you
20 all have something.

21 JUDGE ARNOLD: I do.

22 JUDGE GIBSON: Judge Arnold has
23 something.

24 JUDGE ARNOLD: For the applicant, does
25 your environmental report actually say no release or

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1 no significant release?

2 MR. BURDICK: Your Honor, in
3 Environmental Report section 5.7.6 it states no
4 release to the environment is expected to be
5 associated with such disposals, talking about high
6 level wastes because all the gaseous and volatile and
7 radionuclides contained in the spent fuel are assumed
8 to be released to the atmosphere before disposal of
9 the waste. And that's consistent with the rule making
10 documents, and as we explained in our answer. And
11 there's even been a Supreme Court case which has
12 affirmed the NRC's conclusions in this regard.

13 JUDGE ARNOLD: Thank you.

14 JUDGE CHARBENEAU: Just to follow up, if
15 you could go down a few sentences below what you just
16 read it says -- let me find it here -- it is
17 reasonable to conclude that offsite radiological
18 impacts of spent fuel and high level waste disposal
19 would not be sufficiently great.

20 So -- you're following up by saying there
21 may be some sort of a release. It's got both -- at
22 least to me both implications in that same paragraph.

23 MR. BURDICK: Your Honor, I would
24 understand the first statement is talking about post-
25 closure releases. Perhaps the second statement is

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1 also including, you know, other -- other releases and
2 the handling of the high level wastes. 10 CFR Section
3 5151 says that Table S-3 applies to the handling of
4 radioactive wastes.

5 So I think that's there, but the overall
6 conclusion is the impacts are small.

7 JUDGE CHARBENEAU: Well, both references
8 are to Table S-3?

9 MR. BURDICK: I think that's right, but
10 the first one's talking about the underlying
11 assumption to Table S-3, and the second statement's
12 talking about what's considered in Table S-3 as far as
13 handling the high level wastes.

14 JUDGE CHARBENEAU: Thank you.

15 JUDGE GIBSON: Okay. We could take a 10-
16 minute break. We'll be back on the record.

17 (Whereupon, the foregoing matter went off
18 the record at 12:08 p.m. and went back on
19 the record at 12:20 p.m.)

20 JUDGE GIBSON: Okay, we're back on the
21 record. I'd like to turn, if we could now, to
22 Contention Number 7. I think to the extent that your
23 Contention Number 7 is an attack on the regulations
24 related to the Waste Confidence Rule or the numerical
25 values representing the environmental effects of the

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1 uranium fuel cycle. We've already plowed that ground
2 and while I think we understand your position, I'm not
3 sure that we need to dwell further on that.

4 But I do have some questions insofar as it
5 concerns areas that are not encompassed by the Waste
6 Confidence Rule or the numerical values representing
7 the environmental effects of the uranium fuel cycle.
8 And specifically it appears to me that you have raised
9 several matters that deserve further attention with
10 respect to onsite processing, transportation,
11 accidents and offsite processing which I don't think
12 we have talked about to this point.

13 Now, counsel for the NRC staff, with
14 respect to onsite processing itself, there's nothing
15 in either the Waste Confidence Rule or the numerical
16 values involving the environmental effects of the
17 uranium fuel cycle that would apply in any way to
18 onsite processing, correct?

19 MR. BIGGINS: If I may have a moment,
20 Judge.

21 JUDGE GIBSON: Sure.

22 (Pause)

23 MR. BIGGINS: Judge, I believe to the
24 extent that the rule discusses management of low level
25 waste and high level waste, there is an inclusion of

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1 onsite processing to that extent.

2 JUDGE GIBSON: To that extent, to the
3 extent that you're managing the waste on site.

4 MR. BIGGINS: Correct.

5 JUDGE GIBSON: Okay. With respect to
6 transportation accidents and offsite processing, same
7 question.

8 MR. BIGGINS: With respect to
9 transportation, Judge, the staff's position is that
10 the contention is an attack on Table S-4, which is the
11 specific analysis regarding impacts for
12 transportation.

13 JUDGE GIBSON: Okay, with respect to
14 offsite processing?

15 MR. BIGGINS: With respect to offsite
16 processing, I don't believe the Petitioners
17 specifically raise that. I believe the Petitioners
18 raise the issue regarding offsite disposal activities.
19 Pardon me, they do specifically state offsite
20 processing. If I may have another moment.

21 JUDGE GIBSON: Surely.

22 (Pause)

23 MR. BIGGINS: Okay, Judge, Table S-3 does
24 include offsite processing, particularly because it
25 discusses the impacts for either reprocessing of

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1 offsite disposal.

2 JUDGE GIBSON: Okay, so is there anything
3 then, about onsite processing, offsite processing, or
4 transportation accidents that are not encompassed
5 within Table S-3 or S-4, in your estimation?

6 MR. BIGGINS: No, and I would specifically
7 point out that the site specific information that may
8 not be regarding the application of the numerical
9 values as you pointed out, that may not be
10 specifically addressed by these rules. There is a
11 discussion in the application which the Petitioners do
12 not take issue with or identify in any way that that
13 discussion is inadequate. Those discussions,
14 particularly regarding Table S-3 is in the
15 Environmental Report at 5.7-1 and Table -4 is
16 discussed in the ER at 7.4-1.

17 And Petitioners, by not raising the site
18 specific analysis or essentially the application to
19 this particular -- this particular proposed plan of
20 Tables S-3 and S-4, doesn't raise an admissible
21 contention because they're not showing that immaterial
22 dispute exists.

23 JUDGE GIBSON: Okay. Counsel.

24 MR. EYE: Thank you, your Honor, thank you.
25 In our contention, we differentiate between the

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1 releases that I think are anticipated as a result of
2 normal, routine, garden variety kind of activities
3 related to spent nuclear fuel. We use the term "major
4 releases". It may be a bit imprecise, but frankly, so
5 is the term "small" when it talks about impacts.
6 We're talking about releases that are beyond that
7 which would be normally anticipated in an uneventful
8 kind of waste management regime.

9 And so accordingly, we think that while
10 Table S-3 and Table S-4 are, again, the institutional
11 responses, they make assumptions that there isn't
12 going to be a truck full of spent nuclear fuel that
13 gets caught in a tunnel and catches fire, for
14 instance, that would result in a major release of its
15 radioactive inventory. That's the thrust of our
16 contention. It is to take account of circumstances
17 that are, perhaps by the reckoning of the Commission's
18 rules extraordinary, but again, in terms of the
19 realities that may befall one of these transportation
20 units that saw no way out to wherever it may be going
21 to disposition spent nuclear fuel, it's certainly not
22 an unreasonable event to take under consideration in
23 terms of whether or not that would constitute a major
24 release that could, in fact, have environmental and
25 public health consequences. That's the thrust of our

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1 contention.

2 It's not that it's within the scope of
3 Table S-3 and S-4. We're going beyond that and is
4 that inconsistent with what the Commission says
5 applicants are permitted to do? It is. It is. I'm
6 not going to represent otherwise. But is it
7 consistent with determining whether or not issuing of
8 this license is in the public's interest? We think
9 that it is within the scope of that technique of
10 analysis.

11 JUDGE GIBSON: Okay.

12 MR. BIGGINS: Judge, if I may reply very
13 briefly, where the Petitioner -- where counsel states
14 that an accident is not considered in Table S-4, the
15 staff would point out that it is. Particularly under
16 the heading accidents in transport, the Tab S-4 does
17 contain the summary of the analysis or the conclusions
18 of the analysis that transportation accidents are
19 considered in Table S-4.

20 JUDGE GIBSON: Right. So essentially,
21 counsel for the Petitioners is saying he's talking
22 about extraordinary events that are not encompassed by
23 the scope of these rules and you're saying these rules
24 encompass those sorts of extraordinary events.

25 MR. BIGGINS: Accidents in transport are

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1 considered in Table S-4. To the extent that he's
2 saying that the rule is not adequate, the staff
3 position is that that would be an attack on the rule
4 itself and is inadmissible in this adjudication.

5 JUDGE GIBSON: Okay. Just for
6 clarification of the record, is these -- I assume
7 you're not planning at this point any onsite or
8 offsite processing.

9 MR. BURDICK: Your Honor, I think there --
10 we're not planning a new onsite facility that would
11 process waste from other sources, but there's some
12 processing that goes on just in the regular operations
13 that takes the low level waste and segregates it and
14 stores it for outside disposal. And let me just
15 confirm what the staff has said here with respect to
16 your initial question.

17 With onsite processing, that is covered by
18 Table S-3 but there's also additional information in
19 the Environmental Report on the specific processes
20 that are used to handle that low level waste and in
21 particular Environmental Report Sections 5.4 and 5.5
22 address that. As far as offsite processing, that's
23 also handled by Table S-3.

24 Transportation issues are addressed by
25 Table S-4 and here the Applicants had to provide

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1 additional information in Environmental Sections 3.8,
2 5.11 and 7.4 which discusses transportation accidents
3 and that includes transportation accidents to offsite
4 processing as well. And it's -- you know, all this
5 information has not been challenged by the
6 Petitioners. You know, their contention here is it's
7 just five sentences with no support whatsoever, not
8 discussion of the Environmental Report except for one
9 reference to -- I think they're referring to Table S-
10 3, but just no dispute at all with the application and
11 it's absent factual support. Thank you.

12 MR. EYE: May I respond briefly, your
13 Honor?

14 JUDGE GIBSON: Yes.

15 MR. EYE: Table S-4, I think it's -- when
16 it addresses transportation accidents, I think it's
17 important to see just exactly what it says. It says
18 radiological effects and it says small with a D
19 footnote, letter D footnote, which says although the
20 environmental risk of radiological effects stemming
21 from transportation accidents is currently incapable
22 of being numerically quantified, the risk remains
23 small regardless of whether it's being applied to a
24 single reactor or a multi-reactor site.

25 So I don't think that the inference that

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1 somehow this has been precisely determined is fair.
2 And one other thing I would point out, under NRC --
3 under NRC policy, any exposure to ionizing radiation
4 carries with it the risk of radiation related disease
5 or genetic defects, any, and the cumulative effects of
6 exposures increase the risk. So when the qualitative
7 description of risk is said to be small, it does not
8 necessarily assume that there is -- that there is no
9 risk to somebody who's getting a cumulative dose over
10 time.

11 So this is not in the area of -- this
12 isn't quantified. And so again, I think that when we
13 raised this contention, it was with the idea that
14 these very kinds of transportation accidents that are
15 addressed in Table S-4 don't have the kind of
16 underlying support to give the Petitioners confidence,
17 that the environmental impacts and potential public
18 health consequences have been fully considered. Is it
19 something that is in effect or could be characterized
20 as an attack on these cornerstones of NRC policy,
21 Table S-3 and Table S-4? The answer is yes, it could
22 be characterized that way and again, we would go back
23 to the requirements under the AEA.

24 JUDGE GIBSON: I want to focus on Footnote
25 126 in your insert. Now, my understanding from what

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1 it says is that you all are -- that Table S-4 is not
2 dispositive of their transportation accident
3 contention because Units 3 and 4 do not meet the
4 criteria for the rulemaking. Do I understand that
5 correctly?

6 MR. BURDICK: Your Honor, Section -- 10 CFR
7 Section 51.52 evaluates the environmental effects of
8 transportation of fuel and waste and in Subsection A,
9 it requires that in order to use Table S-4 as is, as
10 in the regulations, that certain criteria be met.

11 JUDGE GIBSON: Right.

12 MR. BURDICK: And so we evaluated that in
13 the Environmental Report. Our -- I think it's rated
14 thermal -- core thermal power exceeded slightly the
15 requirement in A-1 and therefore, the regulation
16 requires a detailed analysis of these environmental
17 effects. And we provide those in ER Sections 3.8,
18 5.11 and 7.4. So that's our evaluation of
19 transportation effects, none of which has been in
20 challenge in this Petition.

21 JUDGE GIBSON: Well, it seems to me, you
22 know, the possible health effects of transportation
23 accidents is -- does seem to be the one thing that may
24 not be disposed of, of these generic rules assuming
25 the generic rules trump the public health concerns

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1 that you've addressed because they've already been
2 addressed by those generic rules.

3 Now, I understand what you're saying that
4 the Petitioners have failed to controvert any aspects
5 of your analyses in the Environmental Report, but --
6 and I don't want to quibble with you but it seems to
7 me that that is merits, because you're essentially
8 saying -- I mean, I think they're saying this is a
9 contingent of omission and whether you fully described
10 and analyzed the environmental effects is -- I mean,
11 yes, you say you have and he says you haven't. How do
12 we not make that merit?

13 MR. BURDICK: Your Honor, I disagree that
14 it's a merits argument. Here I think it is -- they're
15 claiming a contention of omission. We've just
16 identified in the application where this is discussed
17 and that has not been disputed by the Petitioner in
18 any manner whatsoever. 10 CFR Section 2.3096 requires
19 them to -- if they -- if the Petitioner believes that
20 the application fails to contain information on
21 relevant matters, blah, blah, blah, it must identify
22 each failure and support the reasons for the
23 Petitioner's belief. They have not done that and they
24 have ignored the information that's in the application
25 and therefore, they demonstrated no genuine dispute

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1 here.

2 In addition, you know, looking at
3 2.309(F)(1)(5), their Petition and this Contention is
4 devoid of any factual support whatsoever, not even
5 looking at expert support or affidavits, just devoid
6 of any factual support at all. They make a conclusory
7 statement that these things should be considered and
8 we've identified where they're considered.

9 JUDGE GIBSON: So essentially, then your
10 argument is they're making -- they're asserting this
11 as a contention of omission. They're wrong. You've
12 addressed it. There isn't any merits dispute because
13 they haven't said what you said is inadequate.

14 MR. BURDICK: That's right. They're not
15 challenging what we said. They're challenging that
16 we've said it at all. Okay, and we've identified
17 where we've addressed those topics.

18 JUDGE GIBSON: Okay. Is there anything
19 about the transportation issues that have been raised
20 in the Yucca Mountain proceeding that impact in any
21 way on any decision that we make? There are a number
22 of -- series of transportation related questions in
23 Yucca Mountain. I'm wondering if those, in any way,
24 affect this contention. Are they dispositive of it,
25 is it res judicata, collateral estoppel? Is it

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1 totally immaterial? I'm wondering if the staff has
2 a position on that.

3 MR. BIGGINS: To the extent that the
4 Commission hasn't already addressed any issues that
5 may have been raised in the Yucca Mountain proceeding
6 or application, there would not be any legal effect on
7 this Board and I don't believe that the Commission has
8 made any dispositive decisions regarding
9 transportation issues related to Yucca Mountain. So
10 I'm not aware of any issues that would be precluded
11 specifically because of a Yucca Mountain analysis that
12 would preclude this Board from considering them.

13 As long as you're still talking about
14 issues that are relevant within the scope of this
15 adjudicatory proceeding.

16 JUDGE GIBSON: Do you all have an opinion
17 one way or the other?

18 MR. BURDICK: Well, if I can make, you
19 know, one note, your Honor, the burden is on the
20 Petitioners to raise these issues and the contention
21 of admissibility standards require them to identify
22 the basis for the contention and they haven't argued
23 that -- even close to argued that but I think
24 consistent with the staff, you know, that's a separate
25 proceeding and I don't see any way that that would

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1 influence decisions here.

2 MR. EYE: I don't --

3 JUDGE GIBSON: You get the last word.

4 MR. EYE: Thank you. I don't think it's
5 res judicata because we've got different parties and
6 so forth. I don't think it would be res judicata.
7 I'm a little less certain about the collateral
8 estoppel effect. I don't think it would be but before
9 I would really make a -- before I would form an
10 opinion on that, I would want to be constructed a bit
11 and carefully consider whether there are collateral
12 estoppel effects.

13 I think it's tied to a certain extent to
14 the finality of any rulings that have been adopted or
15 rules that have been adopted by the Commission related
16 to the proceeding that you referred to. And if
17 there's been no finality of those rules having been
18 adopted and so forth, I don't think legally we would
19 have either res judicata or collateral estoppel
20 effects but again, that would be a preliminary opinion
21 on my part, but that would be how we'd see it at this
22 point.

23 JUDGE GIBSON: Okay, and how about the
24 position that the Applicant has taken that what you've
25 pled here is a contention of omission. They have

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1 addressed it in their Environmental Report and
2 therefore, since you haven't contested the specific
3 things that they've said, that this contention is
4 inadmissible as pled?

5 MR. EYE: Well, I think that by inference
6 or implication we have -- I mean, when we raise in
7 particular what we've just been talking about, the
8 prospect of transportation accidents to the extent
9 that we are not convinced at all that the analysis
10 that's been done in relation to Table S-4 and the
11 adoption of that by the Applicant has a -- has a
12 sufficiently full scope of the impacts to be something
13 that the Petitioners would accept as being sufficient
14 to predicate the issuance of a license.

15 And to the extent that, for example, the
16 Yucca Mountain proceeding has undertaken issues or the
17 analysis of issues related to transportation, I think
18 it only indicates that these are -- that these are
19 matters that are in flux and I don't -- I mean, I
20 don't have the familiarity with the Yucca Mountain
21 proceedings that your Honor does but clearly if those
22 are -- if those are contentions that are working their
23 way through that particular adjudication, again, it
24 indicates that they are ones that have at least got
25 enough merit to be adjudicated and so as I said, I

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1 think it's evidence to support out contention that
2 while there are representations that this has all been
3 taken care of, that this has been anticipated, and
4 it's quantified in Tables S-3 and Table S-4.

5 That, to us, is not enough. And it
6 evidently is not enough for the Yucca Mountain
7 adjudication either, to the extent that those issues
8 are being taken into consideration.

9 JUDGE GIBSON: Okay, before we turn to
10 Contingent Number 8, I think what we will do is break
11 at 12:30 for lunch. Is an hour sufficient or do you
12 all need more time?

13 MR. FRANTZ: An hour is sufficient for us.

14 MS. KIRKWOOD: That's fine.

15 MR. EYE: We'll make do, your Honor, that's
16 fine.

17 JUDGE GIBSON: Okay, all right. We will
18 break at 12:30 for lunch and reconvene at 1:30. Do
19 you all have anything else with respect to this?

20 MR. BIGGINS: No.

21 JUDGE GIBSON: Counsel for Petitioners,
22 with respect to Contention 8, I note that counsel for
23 the Applicant says that your characterization of the
24 main cooling reservoir as an unlicensed radioactive
25 waste disposal facility, is the lynchpin of your

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1 argument and that it's essentially hyperbole. I have
2 a little bit of familiarity with hyperbole from some
3 things I've done in the past before I came on the
4 Bench and initially, I thought your characterization
5 maybe was a little excessive, but when I got to page
6 38 of the NRC staff's answer, I -- it appeared to me
7 that there may be something specific about this
8 characterization of an unlicensed radioactive waste
9 disposal facility.

10 So let me start with counsel for the NRC
11 staff. You make the argument, if I understand
12 correctly, that the main cooling reservoir is not a
13 waste disposal site or that is a term that is confined
14 to permanent isolation of low level waste materials
15 and has no application to effluent discharges; is that
16 a fair characterization of your position?

17 MS. KIRKWOOD: Yes, and I would note
18 specifically that that was in response to the
19 Petitioners' citation to 42 USC 2021(B).

20 JUDGE GIBSON: Okay. Do you -- are you
21 okay with that explanation from the staff? Do you
22 have a disagreement with that?

23 MR. EYE: Your Honor --

24 JUDGE GIBSON: I'm just trying to make sure
25 -- we're trying to narrow this so we can, you know,

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1 get -- so we're talking off the same page of the same
2 hymnal.

3 MR. EYE: I agree, your Honor. The point
4 in raising that was to simply contrast the supposed
5 care that goes into isolating low level radioactive
6 waste under the particular statute that's at issue
7 that covers that, compared to this discharge of
8 radioactive particulates that is evidently unregulated
9 or at least it's discharge without any kind of
10 specifications to kind and quantity or at least
11 quantity.

12 I think that they do specify cobalt and
13 cobalt 60 here as a kind. Now, I don't know whether
14 that encompasses every particle that they discharged
15 but the point that we were trying to raise is that
16 under normal circumstances these particles of cobalt
17 and cobalt 60 would be taken care of in the low level
18 radioactive waste stream, presumably, and they're not.
19 Instead, they're discharged into the sediment of the
20 MCR left to set for however long they're going to
21 remain there. And our -- and I apologize if it was
22 characterized or if it was thought of as hyperbole.
23 It was really to contrast the management of two
24 different kinds of waste streams here, and it was --
25 that was the point of bringing in the low level

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1 radioactive waste at, frankly.

2 So I don't necessarily accept that the
3 assertions of the staff in that regard. I think that
4 we're trying to illustrate that there are particulates
5 that are being discharged that we don't know very much
6 about.

7 JUDGE GIBSON: Okay, well, let's see if we
8 can, you know, agree on some nomenclature here. Could
9 we say the main cooling reservoir is a water body
10 containing radioactive materials at levels that you
11 deem to be unacceptable to public health?

12 MR. EYE: The first two for sure. The
13 third is a possibility. To the extent that there are
14 any radioactive materials in there that could cause
15 exposure to individuals as a result of it, then yes,
16 then we deem it to be contrary to the public's health
17 and --

18 JUDGE GIBSON: But you're saying
19 essentially that are radioactive constituents in this
20 reservoir that you deem to be at levels that are
21 unacceptable to public health and safety. Is that a
22 fair statement?

23 MR. EYE: We know that they're there. We
24 really don't know the specific levels.

25 JUDGE GIBSON: Okay.

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1 MR. EYE: Other than we know that they're
2 there.

3 JUDGE GIBSON: All right, well, let's look
4 at the material that's being discharged into this
5 reservoir. Now, counsel for the Applicant has
6 suggested that the liquid effluent that is discharged
7 into the main cooling reservoir will comply with NRC
8 regulations. Are you saying that the effluents
9 discharged don't comply with those regulations or are
10 you saying that the Environmental Report doesn't
11 address it adequately or are you saying that the
12 regulations themselves are inadequate to protect
13 public health, because it seems to me it has to be one
14 of the three?

15 MR. EYE: Well, it's inapplicable because
16 particulate is not liquid. They're discharging
17 particulate. It happens to be in a liquid stream but
18 it's still particulate.

19 JUDGE GIBSON: Where do you get that
20 description in terms of you know, a regulatory scheme,
21 that it is a particulate --

22 MR. EYE: It says it in the Environmental
23 Report.

24 JUDGE GIBSON: -- that is in effluent and
25 you're saying that a particulate matter in an effluent

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1 is not regulated? Is that what you're saying?

2 MR. EYE: Well, it's -- regulating liquid
3 effluents is one thing. Regulating particles of
4 radioactive materials is another.

5 JUDGE GIBSON: Well, particles, you know,
6 these gentlemen here I'm sure can address this in a
7 much more scientific way than I but I'm -- it just
8 seems to me that particulate -- there can be
9 particulate matter that is suspended in liquid
10 effluent. And if you -- you can probably measure
11 that, I'll bet. I mean, are you saying that that
12 can't happen, that that's a prohibition of some law or
13 regulation? I'm just trying to understand what your
14 argument is because it's -- I don't get it.

15 MR. EYE: Our argument is that you can
16 regulate liquid effluents as liquid effluents.
17 Particles are not liquid. Particles are dealt with in
18 a radioactive waste stream in a different way. But
19 let me be more specific. There's a requirement that
20 they specify the kind and quantities of radioactive
21 materials that are generated. Well, they've specified
22 that they are discharging cobalt 58, cobalt 60.

23 Are these particles microscopic? Are they
24 as big as my hand? What are they? What kind of
25 description do we have other than it's -- that it's

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1 cobalt 58 and cobalt 60? What is it down in that
2 sediment? And that's not specified in the
3 Environmental Report.

4 JUDGE GIBSON: Okay.

5 MR. EYE: And so in that regard, we think
6 that it's -- these are waste products, I presume that
7 it's fuel cladding or fuel particles or resins that
8 have been -- that have broken loose and gotten into
9 the effluent waste stream. But it's our contention
10 that this lack of quantification of -- or description,
11 I should say, of the particles themselves, leaves open
12 a question as to precisely what is down in that
13 sediment. Now, as we sit here today and then what
14 will be the cumulative effect of full operation of
15 four units over time?

16 How much radioactive particulate can we
17 anticipate at the end of the operational life of these
18 four units to be in that sediment? That's not
19 specified in the ER, at least as far as we could tell.

20 JUDGE GIBSON: Okay, I think we probably
21 need to unpack that a little bit. I think JUDGE
22 Charbeneau has some specific questions.

23 JUDGE CHARBENEAU: I wasn't going to go to
24 a question yet, but just make a comment. Two of the
25 crudest measures of characterizing a waste stream is

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1 the amount of suspended solids and the amount of
2 dissolved solids and particulates would be considered
3 as part of the suspend solids. So that is still a
4 liquid waste stream that has suspended solids in it.
5 And whether you're talking about hazardous waste
6 streams whether we're talking about what we flush down
7 the toilet, they're all the same at that very crude
8 level. You can go to more specificity but
9 particulates does not mean it is not a liquid waste
10 stream. It's just one component of that waste stream
11 is particulate matter.

12 JUDGE GIBSON: Okay.

13 JUDGE CHARBENEAU: I'm not getting to my
14 questions.

15 JUDGE ARNOLD: Let me just ask a general
16 question first of a step. In the NRC regulations
17 concerning discharge of liquids, do those regulations
18 separate out the particulates that may be suspended in
19 the liquids or is it all treated as a mixture and any
20 radioactive limits are based on everything particulate
21 and liquid that may be in there? Does anyone have
22 that knowledge?

23 MS. KIRKWOOD: I think I know the answer to
24 your question but I'd like a moment to confer with our
25 technical staff, if that's okay.

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1 JUDGE ARNOLD: Sure.

2 (Pause)

3 MR. ROSENTHAL: Excuse me, sir, while
4 they're having their recess and talk, are people here
5 allowed to ask questions?

6 JUDGE GIBSON: I'm sorry, you -- basically,
7 no. This is a proceeding involving contention
8 admissibility with respect to things that have already
9 been raised. We've got a pretty full plate the next
10 two days and we're also obligated to limit
11 participation in these proceedings to people that have
12 actually filed petitions. I'm sorry if there was any
13 confusion on your part. There -- if there is an
14 evidentiary hearing in this matter, there will
15 probably be a -- some opportunity for people such as
16 yourself to make statements, but this particular
17 proceeding is -- it's probably not going to be
18 possible to do that mostly because we've got a pretty
19 full plate for two days.

20 These folks have prepared themselves to
21 speak.

22 MR. ROSENTHAL: I understand that. I've
23 been out of the state. I came back in here. Got back
24 to Bay City late last night. I know people are not
25 interested in that part and I just found out about the

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1 meeting.

2 JUDGE GIBSON: Yeah.

3 MR. ROSENTHAL: And I came over here. Now,
4 I do have some credentials to speak for Petroleum
5 Georgia (phonetic). I've been active with the nuclear
6 thoughts is a better way, not the details that they're
7 trying to do, since the early '50s. And --

8 JUDGE GIBSON: Well, I appreciate that,
9 sir, and I don't mean to be rude.

10 MR. ROSENTHAL: You're not rude. I'm --

11 JUDGE GIBSON: But this is, I assure you,
12 something we've all been preparing for, for a long
13 time. There really isn't -- this is not a public
14 hearing in the sense that the public has an
15 opportunity to speak about their concerns. I can only
16 tell you that there probably -- if there is an
17 evidentiary hearing, there will be an opportunity
18 later. There may be other public hearings that the
19 NRC staff will be having that you would be afforded an
20 opportunity, but at this particular point in time, I
21 apologize but the way this is set up, it's pretty much
22 going to be these lawyers talking about their
23 arguments which are going to consume a full two days.

24 MR. ROSENTHAL: I can understand lawyers
25 talking and talking.

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1 JUDGE GIBSON: Okay. Well, again --

2 MR. ROSENTHAL: I wanted to say this and
3 then I'll shut up. I've heard this scare tactic of
4 nuclear energy forever. We were the ones that
5 invented it. The French have over 95 percent of the
6 electricity there. We have had only one nuclear
7 accident and that could have been prevented and more
8 people in the United States were killed at
9 Chappaquiddick than all the nuclear accidents in the
10 United States. I could add more to that if they're
11 talking about --

12 JUDGE GIBSON: Well, like I said, this is
13 not an opportunity for the public to speak, so I
14 again, apologize for any confusion that may have been
15 created on your part by virtue of, you know, our
16 public notice or whatever, but there will be another
17 opportunity for the public to speak if there is an
18 evidentiary hearing. I would please ask that you let
19 these other people speak because there is a lot that
20 they've prepared a long time to do. Okay?

21 MR. ROSENTHAL: Thank you very much for
22 your time and you all --

23 JUDGE GIBSON: Okay, I believe we had a
24 pending question with the NRC staff from Judge Arnold.

25 MS. KIRKWOOD: Right, I'm going to -- Sara

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1 Kirkwood for the NRC staff. I'm going to attempt to
2 answer Judge Arnold's question. We have dose limits
3 in Part 20 that are not regard to what type of
4 effluent stream it is. In Appendix I in terms of how
5 you meet ALARA, there is some distinguishing between
6 gaseous streams and liquid streams but the particulate
7 versus effluent is not a distinguish --
8 differentiation that the staff makes.

9 When we answer the Petitioners and use the
10 term "effluents", we were trying to be more accurate,
11 not to make some sort of regulatory distinction, if
12 that answers your question.

13 JUDGE ARNOLD: I believe it does.

14 JUDGE GIBSON: On page 33 of your answer,
15 you've suggested -- I'm sorry, I'm sorry, I got a
16 little off there. Counsel for the Applicant, page 33
17 of your answer, you've suggested you've designed what
18 you call a liquid waste management system that will
19 insure that before any radioactive materials are
20 discharged to the main cooling reservoir that liquid
21 will be monitored and the Applicant will confirm that
22 it does not exceed applicable levels of safety.

23 MR. FRANTZ: That's correct.

24 JUDGE GIBSON: Okay. Immediately after
25 that, you refer to the radiological environmental

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1 monitoring program and then you list a third system
2 called the off-site dose calculation manual. Now, are
3 these three separate systems; one, the liquid waste
4 management system that tests liquid before it's
5 discharged, the second the radiological environmental
6 monitoring program that tests the main cooling
7 reservoir itself as well as other water bodies near
8 the plant, including the groundwater, and a third, the
9 offsite dose calculation manual which models the
10 probable concentration of radioactive materials in
11 those water bottles?

12 MR. FRANTZ: Yeah, the first two are
13 actually physical mechanisms. The process or effluent
14 monitoring actually monitors the effluent that's being
15 discharged in the main cooling reservoir. That's a
16 continuous monitoring system. We also have the
17 radiological monitoring program which periodically
18 goes out in the environment, including the main
19 cooling reservoir, both the water and sediment, to
20 monitor the cumulative radioactivity in the cooling
21 reservoir and the sediment. And then that feeds into
22 our dose calculation manual which actually then is
23 used to calculate doses to the public as a result of
24 our effluents.

25 JUDGE GIBSON: And you're obviously not

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1 going out and taking samples of people. I assume that
2 is a mathematical model of what you would project
3 would be out there in the ambient environment as a
4 result of these actual monitoring calculations that
5 you make inside the fence line.

6 MR. FRANTZ: That is correct.

7 JUDGE GIBSON: Is that a fair
8 characterization?

9 MR. FRANTZ: Yes.

10 JUDGE ARNOLD: Let me just ask -- add on
11 that. When you discharge effluents to the MCR, does
12 it go through some sort of processing in addition to
13 the monitoring?

14 MR. FRANTZ: Yes, before it's even
15 discharged, there's a liquid waste management system
16 that actually does process anything that's discharged
17 into the main cooling reservoir.

18 JUDGE ARNOLD: Does it involve a filter?

19 MR. FRANTZ: Filters, resins and so forth,
20 yes.

21 JUDGE ARNOLD: So when you're talking
22 particulate, you're talking about particulates that
23 were able to work their way through a filter.

24 MR. FRANTZ: That's correct. I might also
25 add first of all, our system, the ABWR system, is

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1 designed not to release liquid radioactive effluents
2 during normal operation. I'll refer the Board to FSAR
3 Section 12.2.2.5. It's only under abnormal situations
4 where you even have any releases. Additionally, with
5 respect to cobalt mentioned by the Petitioners our
6 radiological monitoring program has detected in the
7 past some cobalt but the most recent samples have
8 detected no cobalt and that's in part due to our
9 improved processing system for Units 1 and 2.

10 So currently, there are no detectible
11 levels of cobalt in our sediment contrary to his
12 allegations.

13 JUDGE GIBSON: And do I understand
14 correctly that those radioactive constituents were the
15 result of the operation of Units 1 and 2. They're not
16 -- obviously, you haven't even operated Unit 3 and 4,
17 but the idea is that you won't have any radioactive
18 releases in the effluent from those plants because of
19 the way they're designed.

20 MR. FRANTZ: Not during normal conditions,
21 that's correct.

22 JUDGE GIBSON: Okay, and therefore, to the
23 extent that counsel for the Petitioners has assumed
24 that there is going to be some concomitant increase
25 attributable to Units 3 and 4, I take it your position

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1 would be, no, there should be no release at all during
2 normal operating conditions.

3 MR. FRANTZ: That's correct. And for the
4 purposes of our FSAR and our Environmental Report, we
5 have assumed some discharges because there might be
6 some under unusual conditions. But those discharges
7 are very, very small. They're a small fraction, very
8 small, I think it's about one percent approximately of
9 the discharges from Units 1 and 2.

10 JUDGE GIBSON: Okay.

11 JUDGE ARNOLD: When you're discharging, I
12 assume there's some limit and if the discharge went
13 above that limit, you'd stop discharging.

14 MR. FRANTZ: That's correct.

15 JUDGE ARNOLD: If you were just below that
16 limit, are you required to discharge it into some
17 controlled body of water like the MCR or is this --
18 could it be discharged to the environment?

19 MR. FRANTZ: It all goes into the main
20 cooling reservoir.

21 JUDGE ARNOLD: It goes into but is that a
22 requirement that it go into some body of water that
23 you are controlling?

24 MR. FRANTZ: We have -- we do have, I guess
25 our description in our FSARs which describe where we

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1 release and that's part of our design basis, if you
2 would.

3 JUDGE GIBSON: Excuse me, just one second.
4 Does -- does your technical colleague need to tell you
5 something here so that we can have a full answer?

6 MR. FRANTZ: Just the fact that the main
7 cooling reservoir is considered to be basically a
8 release offsite, even though it's technically within
9 the bounds of our property.

10 JUDGE GIBSON: Okay, counsel for
11 Petitioners, you've heard the Applicant describe their
12 conditions. I'm sure you've read the environmental
13 report provisions. And they're saying there's no
14 problem in the sediment or the main cooling reservoir.
15 And I want to make sure that we understand what your
16 argument is. Are you saying that their monitoring
17 programs show there is a problem? Are you saying that
18 the monitoring programs are not representative of the
19 actual conditions or are you saying something else?

20 MR. EYE: We're saying that the monitoring
21 programs do show that there is cobalt in the sediment.
22 I mean, that's in their Environmental Report. It's
23 in their annual Environmental Report as well, I
24 believe, and they qualify it. It's graphically
25 represented. That MCR, as I presume we'll see day

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1 after tomorrow, is a -- it's not a small water body
2 and what we're suggesting is because they don't
3 necessarily find radioactive particulate every time
4 they go out and take a sediment sample, doesn't
5 necessarily mean that it's not there, number one.

6 So to the extent that there are discharges
7 of particulate that are not monitored, if you will,
8 then we think that that's an environmental problem
9 that is accumulating over time, that there is a
10 cumulative effect. As counsel just noted, it's at
11 least for purposes of regulatory considerations, is
12 considered an offsite discharge. It is part of the
13 environment. It's a water body that has hydrological
14 connections to groundwater and presumably, then the
15 Colorado River and other water bodies.

16 It's connected. So I think our concern
17 really goes to the -- and again, we're keying off of
18 what's in the environmental report and what's in
19 publicly available documentation. When we take a look
20 at the annual report that the Applicant issues and
21 they say, "There's cobalt in our sediment", we -- that
22 raises a concern because that's cobalt that is sitting
23 there waiting to be moved wherever water would take it
24 or in the event, as we suggest, an extreme drought
25 condition, where the reservoir could become dewatered

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1 and it could get airborne transport involved.

2 That's our concern is that there are
3 radioactive particulates that would otherwise be
4 sequestered ideally, sequestered and dealt with in a
5 way that would give us more confidence that -- I'm
6 almost reluctant to use that term, but that would give
7 us some greater assurance that it would be permanently
8 isolated from the environment, because that's really
9 the intention, it seems to us of how to deal with
10 radioactive particulate is to keep it separated from
11 the environment to the maximum extent possible.

12 This is a discharge, as I mentioned.
13 Technically speaking, it's an offsite discharge and
14 it's going to go wherever water or wind would take it.

15 JUDGE GIBSON: Okay, well, I appreciate
16 your explanation but it sounds like you're saying in
17 response to my question it's both and that is to say
18 their monitoring results show there's a problem and
19 their monitoring results are not representative. Is
20 that right? Are you saying that?

21 MR. EYE: Well, to a --

22 JUDGE GIBSON: Or are you just saying their
23 monitoring results show there's a problem?

24 MR. EYE: For sure that their monitoring
25 results show there's a problem.

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1 JUDGE GIBSON: Okay.

2 MR. EYE: And to the extent that they're
3 monitoring allows radioactive particulate to still be
4 discharged, then I suppose that there's some
5 deficiency there, although we did not raise that
6 directly in our contentions.

7 JUDGE GIBSON: Okay, well, I just wanted to
8 be sure I understood it because I think that it's a
9 very different matter. I understood you to be saying
10 the first, that their monitoring results show there's
11 a problem.

12 MR. EYE: That's correct. Judge --

13 JUDGE GIBSON: Now, I would like you to
14 address this issue about is there a problem right now
15 because I know that's a serious concern that they've
16 raised. Could you please address it? Obviously,
17 there's some data out there. There may be some
18 outliers. There may be a trend line. There may be a
19 lot of things. Can you explain to us what the data
20 means?

21 MR. FRANTZ: Yes. As a basis for their
22 contention, they cite the 2007 Radiological and
23 Environmental Operating Report for South Texas Units
24 1 and 2. Let me just quote from Page 6-7 of that
25 report. It says, quote, "The Cobalt 58 and Cobalt 60

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1 inventory in the reservoir has decreased since 1992
2 because of the equipment installed at the reduced
3 radioactive effluents. The amount of cobalt has
4 decreased below levels that can be reliably detected.
5 The concentration of Cobalt 60 in the reservoir bottom
6 sediment samples varies and this year could not be
7 detected".

8 That's what they're citing as their
9 support. Obviously, they have just mischaracterized
10 our report. We did not indicate any problem. We say
11 it's below detectible levels. Additionally, we do
12 monitor our releases. We insure that all of the
13 releases are within NRC limits by definition. Those
14 releases, therefore, are -- have a small environmental
15 impact and I refer the Board there to Footnote 3 of
16 Appendix B to Part 51 which defines small specifically
17 as being radioactive impacts that are within NRC
18 limits. And that's the definition of small.

19 And so by definition, these discharges to
20 the main cooling reservoir are small because they're
21 all within NRC limits. Mr. Eye seems to be saying
22 that we should have a zero discharge or requirement.
23 That is certainly not consistent with NRC regulations.
24 The regulations do allow some very minimal discharges
25 including discharges of Cobalt 58 and 60.

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1 JUDGE GIBSON: Okay. All right.

2 MR. FRANTZ: If I could add just one more
3 thing; he also has alleged in various places that we
4 have not reported the amounts of various
5 radionuclides (phonetic) which we do discharge. That
6 allegation also is false. If you -- I refer the Board
7 to page -- I'm sorry, FSAR Table 12.2-22 which for
8 every isotope identifies the annual release in curies
9 per year and the concentration of that release. So
10 again, for every isotope, we do identify in our
11 application what isotopes we're discharging.

12 JUDGE GIBSON: Okay, now to review the
13 bidding here, you have indicated that everything we've
14 been talking about there is the result of discharges
15 into the main cooling reservoir from Units 1 and 2.

16 MR. FRANTZ: That's correct.

17 JUDGE GIBSON: And that's where all this
18 radioactive -- small radioactive material is. You're
19 anticipating that Units 3 and 4 are going to have a
20 negligible release, nothing again, concomitant, no
21 concomitant increase with what you have in Units 1 and
22 2.

23 MR. FRANTZ: That's correct. And in fact,
24 if you look at our expected doses from the release
25 from Units 3 and 4, I think it's orders of magnitude

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1 less than the values specified in Appendix I to Part
2 50. So we have plenty of margin --

3 JUDGE GIBSON: Okay.

4 MR. FRANTZ: -- between our releases and
5 our limits.

6 JUDGE GIBSON: Okay. Counsel for
7 Petitioners, on -- is this -- did you -- I think this
8 is actually in your -- in the Applicant's report. On
9 page 33, you all talked about insuring that
10 radioactive materials that are released do not
11 reconcentrate in the environment. Is that right?

12 MR. FRANTZ: Yes.

13 JUDGE GIBSON: Could you please explain
14 that? I don't think I've ever seen that phrase
15 before.

16 MR. FRANTZ: And I'll have to make sure my
17 people behind me correct me if I'm wrong, but I
18 believe that may be referring to either cases where
19 you have, for example, fish that may consume
20 radioactivity and therefore, concentrate some of that
21 and also, of course, in the sediment itself there's
22 possibilities for concentrations.

23 JUDGE GIBSON: Is this a similar phenomenon
24 to mercury getting into the environment and you know,
25 you can't eat swordfish because they eat all the other

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1 fish or something? Is that essentially a similar
2 phenomenon? Is that what we're talking about here,
3 about reconcentrating in the environment?

4 MR. FRANTZ: I believe that is, yes.

5 JUDGE GIBSON: Okay, okay. Okay, let's
6 talk about tritium. I understand on pages 33 and 34
7 that tritium concentrations in the main cooling
8 reservoir and the sediments are within limits. Now,
9 I don't -- maybe I'm missing something but it seemed
10 to me that the concentration of tritium in the main
11 cooling reservoir in the sediments is not so much what
12 the Petitioners are contesting but rather that the
13 adding Units 3 and 4 are going to result in some
14 increase of that.

15 Now, again, is tritium one of the
16 constituents that's not going to be released from
17 Units 3 and 4 under the new design?

18 MR. FRANTZ: Under normal conditions, that
19 is correct. We will, occasionally, release some
20 tritium. Tritium is not a particulate. It's part of
21 the water and all of our monitoring to date has shown
22 that both in the groundwater and the surface water,
23 including the main cooling reservoir, our tritium
24 levels are well below the EPA drinking level
25 standards.

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1 JUDGE GIBSON: Okay.

2 JUDGE ARNOLD: Let me just ask a little bit
3 more on that. My understanding is, you can't filter
4 out tritium.

5 MR. FRANTZ: That's correct.

6 JUDGE ARNOLD: So how do you avoid having
7 tritium in just about any water that you discharge?

8 MR. FRANTZ: There are different waste
9 streams. We do have some chemical waste streams, for
10 example, that would not be contaminated with any
11 radioactive particulates or tritium for that matter.
12 Our liquid radioactive effluents would probably have
13 some tritium in them.

14 JUDGE ARNOLD: Thank you.

15 JUDGE CHARBENEAU: Is tritium also part of
16 the gaseous waste streams that are released?

17 MR. FRANTZ: I do not know. I assume there
18 probably is some small amount of tritium released in
19 the gaseous effluents, too, but I just don't know off-
20 hand.

21 JUDGE CHARBENEAU: But that would not be a
22 contributor to what's in the reservoir and
23 groundwater.

24 MR. FRANTZ: No significant contribution,
25 that's correct.

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1 JUDGE GIBSON: Okay, now, I think we need
2 to turn to the possibility of embankment failure and
3 the possibility that the main cooling reservoir will
4 become a dry lake bed. These are two scenarios that
5 the Petitioners have raised in this contention. On
6 page 37 of the Applicant's answer, the Applicant
7 claims that an embankment failure is not a credible
8 event and cites to the final safety analysis report.

9 And in your reply you seem to state three
10 different things. That manmade structures have
11 limited useful lives, and you refer to the Church Rock
12 Uranium tailing failure of 1979. That -- secondly,
13 that the Applicant should specify the concentrations
14 of radioactive materials in both the main cooling
15 reservoir and in the sediment because the half life of
16 those constituents may outlive the useful life of the
17 embankment. And third, that the Applicant's final
18 safety analysis report fails to address these issues.

19 Is that a fair characterization of what
20 you've argued?

21 MR. EYE: Yes, your Honor.

22 JUDGE GIBSON: Okay, okay. Now, I want to
23 go to page 39 of your answer and you quote from Table
24 B-1 of Appendix B of Subpart A of 10 CFR Part 51 and
25 that's a mouthful, for the proposition that when the

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1 Commission promulgates a permissible level, compliance
2 with that permissible level means that the impact is
3 too small to be of concern to public safety.

4 MR. FRANTZ: And also it's too small to be
5 -- small in terms of the environmental impact.

6 JUDGE GIBSON: Okay, for public safety and
7 environmental impact.

8 MR. FRANTZ: Yes.

9 JUDGE GIBSON: Now, you know, when I read
10 that, it sort of struck me as sort of a negligence,
11 per se, in reverse argument, and that is that if you
12 comply with the regulation, you should be able to
13 avoid challenges like this to your application because
14 it is, per se, not material. Is that basically what
15 you're arguing?

16 MR. FRANTZ: No. What we're arguing is
17 that we're required to characterize the impacts of our
18 plant. One of the impacts are the radiological
19 impacts and for all impacts we characterize them in
20 one of three levels; small, moderate or high in
21 accordance with the NRC's typical characterization
22 scheme in Part 51.

23 And because our radiological effluents are
24 within NRC limits by definition and provided in Part
25 51, the impact is small.

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1 JUDGE GIBSON: And if you are -- if you do
2 comply with those limits, and your plant operation
3 shows that you comply with those limits, then does
4 that mean that the Petitioners' contention should be
5 inadmissible because it can't be material?

6 MR. FRANTZ: That's correct.

7 JUDGE GIBSON: Okay, that's why I called it
8 a negligence, per se, in reversal.

9 MR. FRANTZ: Oh, okay.

10 JUDGE GIBSON: Do you all agree with his
11 characterization?

12 MS. KIRKWOOD: Whose?

13 JUDGE GIBSON: Counsel for the Applicant.

14 MS. KIRKWOOD: To a certain extent, yes.

15 JUDGE GIBSON: Why don't you tell us the
16 extent to which you do and the extent to which you
17 don't.

18 MS. KIRKWOOD: Yes, an admissible
19 contention is not formed if the -- at this point, I
20 couldn't admit a contention that says that this
21 Applicant should comply with some lower dose limit
22 than what's found in the NRC regulations.

23 The staff is still reviewing this
24 application and so in terms of any ultimate conclusion
25 regarding whether or not the doses released from South

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1 Texas Units 3 and 4 will be -- comply with our
2 regulatory limits, is still something the staff is
3 reviewing. So that's the part that I wouldn't agree
4 with -- I wouldn't disagree. We just are still
5 looking into it.

6 JUDGE GIBSON: You're still reviewing the
7 data.

8 MS. KIRKWOOD: Right.

9 JUDGE GIBSON: Fair statement. Do you
10 agree with the basic proposition, though, that if you
11 -- if the normal operation of the plant is such that
12 it's going to be complying with these standards, that
13 that ought to be sufficient and there's no real basis
14 for establishing a contingent if it essentially is
15 saying you're meeting the standard? That's not a
16 basis for contention.

17 MS. KIRKWOOD: Right, that wouldn't be a
18 basis for a --

19 JUDGE GIBSON: All right, you have an
20 opportunity to respond. I just wanted to be sure I
21 understood where they were coming from. Please do so.

22 MR. EYE: Thank you, your Honor. Thank
23 you, sir. First of all, as a matter of common law,
24 compliance with regulatory requirements is not a, per
25 se, defense to a negligence claim. And that dovetails

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1 with the public interest provision of the Atomic
2 Energy Act. You can comply with regulatory
3 requirements in every way. That doesn't necessarily
4 mean that you would escape liability in a negligence
5 action.

6 That's more or less black letter law. But
7 here, let's substitute negligence for public interest
8 or substitute -- take out negligence and insert public
9 interest. Does compliance with regulatory
10 requirements, per se, mean that there's been
11 compliance with public interest? We contend not. The
12 idea -- I mean, we were very much -- it was sort of
13 dismissive that the tone and tenor of the Applicant
14 and the staff's response to our assertion that there
15 ought to be a consideration about embankment failure.

16 First they said, "Gee, you didn't offer up
17 an expert witness to support this". Well, your Honor
18 just cited the Church Rock release. There have been
19 more recent dam failures since then that have resulted
20 in pretty serious environmental public health
21 consequences. And that's the reason that we cited
22 Federal Rule of Evidence, I believe, it's 703. That
23 there are some things that simply don't require an
24 expert witness to explain. And it's our contention
25 that the failure of these kinds of structures is

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1 essentially common knowledge.

2 If one of these structures fails, or if
3 the structure that impounds the MCR would fail, would
4 there be a public health and environmental
5 consequence? As I understand the staff and the
6 Applicant's response, it is under no circumstances
7 could that happen. Why? Because everything in that
8 MCR is within regulatory limits. Therefore, even if
9 it all goes downstream, goes to the estuary, ends up
10 wherever the flow would take it, there's not going to
11 be an environmental or public health consequence
12 that's worth noting because it would be within
13 regulatory requirements.

14 That's where we depart from their
15 analysis. We consider the proposition that an
16 embankment could fail as a real possibility. There's
17 no analysis in the Applicant's papers of any kind of
18 structural integrity of this embankment. And these
19 embankments are like a lot of other things, they work
20 really well until they don't. And then as in Church
21 Rock, as in the coal slurry failures, you got serious
22 consequences to deal with.

23 So we go back to is it consistent with the
24 public's interest to make sure that this impoundment
25 structure is sound, that there's not a sudden

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1 catastrophic release of radioactive materials that
2 would go downstream? Considering that the NRC
3 recognizes that any exposure to radiation, ionizing
4 radiation, can have health consequences, we think that
5 this is one that ought to be avoided. We want to see
6 this impoundment structure remain intact for as long
7 as there's water behind it that's radioactive.

8 All we're asking is that that be made a
9 part of this adjudication, that there be some detail
10 analysis as to just exactly how reliable that
11 structure is today and how reliable it will be during
12 the prospective life of Units 3 and 4. Because if we
13 -- as I recall, I believe this structure was built in
14 the '70s. I think it's like mid-'70s. So it's --
15 we're already out to, you know, 30 years. You tack on
16 the prospective life of Units 3 and 4 and you're out
17 to 60, 70, 80 years old and the impoundment structures
18 that failed with the coal slurry in Tennessee -- in
19 Kentucky rather, and the Church Rock, I believe, were
20 -- they didn't have that kind of age on them.

21 So all we're asking is that as a structure
22 it's so important here be carefully considered, as
23 carefully considered as other operational pieces of
24 this particular plant. They have to have this MCR in
25 order to function. If the embankment would fail and

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1 lose the MCR, there are environmental consequences and
2 presumably there would be operational consequences.
3 We didn't raise the operational consequences because
4 I think it's implicit. They never said that the MCR
5 was not integral to operation of the plant. So if it
6 was -- if it would be lost, there would be some
7 operational impacts. We're here really, instead to
8 focus on the health and safety impacts.

9 And believe me, the last thing we want is
10 a failure of that embankment. It's the last thing
11 anybody wants. But do we have enough information to
12 say confidently that it will not fail? And I think
13 that's -- it's really the lack of data, the lack of
14 information. I don't know what the data would show.

15 JUDGE GIBSON: Okay, well, I think it's
16 time for us to recess for lunch. We will reconvene in
17 an hour. And we will resume our discussion of this at
18 that time.

19 (Whereupon, at 1:30 p.m. a luncheon recess
20 was taken.)
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A F T E R N O O N S E S S I O N

2:30 P.M.

1
2
3 JUDGE GIBSON: If we could go back on the
4 record now. When we recessed for lunch we were
5 discussing Contention 8.

6 I think I direct this question to NRC
7 staff. Now I understand that this sort of reverse
8 negligence per se argument that if you do comply with
9 the rules, with the standard, then you know, the
10 contention does raise a material issue because it
11 essentially says you comply with the rule. But it
12 seems to me that there is an additional argument that
13 I understand Petitioners to be making. Because I
14 think what they're saying is that the -- even if you
15 comply with the effluent limitation set out in the
16 rules, that the concentration in the water column at
17 the reservoir may not be safe or that the groundwater
18 that communicates with the reservoir may not be safe.

19 Now how do you address that issue, if you
20 comply with the rules in terms of material, in terms
21 of the effluent discharge, but assume with me just for
22 the sake of argument that, in fact, the concentrations
23 in the water column in the reservoir were in the
24 sediment or in the groundwater that is in
25 communication with the main cooling reservoir exceeds

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1 some safe level?

2 MS. KIRKWOOD: If I am understanding your
3 question correctly -- Sara Kirkwood for the NRC staff
4 -- if the Petitioner had submitted facts to
5 demonstrate, alleged facts to demonstrate that there
6 was some question of whether or not this was in
7 compliance with current limits that would actually be,
8 I think, a concern about the operating units, about
9 Units 1 and 2, in which case if they were exceeding
10 our regulatory limits that would be subject to
11 interpretation for enforcement under 2.206. I'm not
12 sure if I'm answering your question because my answer
13 doesn't seem to make sense to anything in this
14 proceeding.

15 JUDGE GIBSON: Well, I think that we've
16 established that Units 1 and 2, to the extent there's
17 any radiation out there that it's attributable to 1
18 and 2, because 3 and 4 aren't even operating.

19 MS. KIRKWOOD: Right.

20 JUDGE GIBSON: And I think we've also
21 established that at least as designed, 3 and 4 should
22 not be releasing radiation at those levels. But my
23 question really just had to do with the simple -- this
24 simple question. Does this reverse negligence per se
25 argument break down if, in fact, you comply, an

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1 applicant complies with the limitations for the
2 discharge but, in fact, the concentrations in the
3 water column in the main cooling reservoir, or in the
4 sediment, or in the groundwater that's in
5 communication with the main cooling reservoir exceeds
6 some health standard?

7 I think your technical person is going to
8 provide you with their sage counsel on this.

9 MS. KIRKWOOD: I think to answer your
10 question, that is what the Radiological Environmental
11 Monitoring Plan is watching for. And that's the
12 reason why the staff expects applicants to have a
13 Radiological Environmental Monitoring Plan. It's to
14 ensure that those -- that that does not occur, that
15 there is something done well before we get to that
16 level.

17 JUDGE GIBSON: Okay.

18 MS. KIRKWOOD: Now if there were some --
19 so they do currently comply with radiological limits
20 as they are now -- whether they're concentrated or as
21 they're released. If at some point they stop
22 complying, that would also be an issue for the
23 radiological monitoring program, the off-site dose
24 calculation manual, all of those -- the processing of
25 the effluents. Those are all things that the staff

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1 looks at on its safety side review.

2 JUDGE GIBSON: Okay.

3 MR. FRANTZ: I can reinforce that, Judge
4 Gibson. Our current monitoring program shows that the
5 tritium levels both in the reservoir and in the
6 groundwater are well below EPA drinking water
7 standards. And so we do have assurance today that
8 we're in compliance.

9 JUDGE GIBSON: Yes, and I appreciate that
10 fact. I was just trying to understand whether the
11 legal argument breaks down, that's all. And it seems
12 to me -- the flip side of that, of course, is that if
13 you have a limitation, discharge limitation, you
14 comply with that discharge limitation and the
15 monitoring of the main cooling reservoir, the
16 sediment, and the groundwater and communication with
17 the main cooling reservoir indicates that you're in
18 compliance with some permissible exposure limit that
19 EPA may have in the -- or maximum contaminant level or
20 something, that EPA may set that that's an indication
21 that those discharge limitations are pretty effective.
22 So I appreciate that. I just was trying to
23 understand. It seems to me that it's not a foolproof
24 argument, that's all.

25 MR. FRANTZ: I might also add, if you look

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1 at the contention itself, there is nothing in the
2 contention, there's no expert opinion. There's no
3 documentary support. There's no references. They
4 have absolutely nothing to indicate that we would
5 exceed regulatory limits or that even if you postulate
6 an embankment failure, that there would be any
7 significant radiological impact downstream. There's
8 just nothing in the contention and therefore it
9 doesn't satisfy 2.309(f)(1)(v).

10 JUDGE GIBSON: And I understand that the
11 trendline is showing based on your monitoring data,
12 that you're okay anyway from Units 1 and 2.

13 MR. FRANTZ: That's correct.

14 JUDGE GIBSON: Okay, all right. Let's
15 talk about the useful life of an embankment versus the
16 half life of the materials deposited in the main
17 cooling reservoir.

18 I assume your position is that this does
19 not represent a serious safety concern based on the
20 monitoring data that you have?

21 MR. FRANTZ: That's correct. Also, I
22 might add that our final Safety Analysis Report,
23 Section 2.4S.4.1.2 states that the failure of the
24 embankment is not a credible event. Petitioners have
25 not contested that discussion in that section and have

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1 not otherwise even cited that discussion.

2 Also, of course, we're required by the
3 Texas Commission on Environmental Quality to do
4 periodic inspections of the embankment, to do
5 preventive maintenance on the embankment. This is
6 subject to third party inspections. And that gives
7 additional assurance that the embankment will maintain
8 its integrity over time.

9 JUDGE GIBSON: Okay. So I was a little
10 confused, I admit, in reading your answer, but it
11 sounds like what you're saying right now is that it's
12 your view that you addressed this issue in the final
13 Safety Analysis Report, not that you didn't need to
14 address it.

15 MR. FRANTZ: That's correct. I'm also
16 saying, of course, even if you ignore all of that,
17 even if you postulate the failure of the embankment,
18 there simply is no radiological problem.

19 JUDGE GIBSON: Okay, fair enough. Okay,
20 counsel for Petitioners, you've heard their views of
21 this. Do you have anything that you'd like to say in
22 response?

23 MR. EYE: Yes, thank you, Your Honor.

24 JUDGE GIBSON: Try to -- and just to make
25 sure since we got to get all of this done in two days,

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1 if you could try to confine your remarks to the
2 specifics things they say. That would be helpful.

3 MR. EYE: I'll do my best.

4 JUDGE GIBSON: Thank you.

5 MR. EYE: First of all, let me address the
6 point about embankment failure. There are no data in
7 the FSAR that demonstrate anything about inspections
8 or maintenance or anything else. The first time we've
9 heard about it, I believe, is today from counsel.
10 That's my understanding.

11 So does that -- is that enough for the
12 COLA? I would think not. They have to have some
13 empirical evidence to support that and if it's
14 periodically inspected, then there ought to be records
15 of that and so forth that would be -- that would
16 support their contention.

17 Not a credible event. Embankment failures
18 are not a credible event. But that's what the
19 Applicant has asserted here. We have pointed out
20 embankment failures that certainly probably were not
21 seen as a credible event either and they happened. We
22 think they are a credible event. Many, many
23 structures fail.

24 In terms of whether tritium-laden water
25 or sediment that has radioactive particulate

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1 represents a health hazard go back to NRC policy,
2 exposure to radiation carries with it a health risk.
3 Now maybe it's within standards that the NRC has
4 imposed. That doesn't negate the health risk. That's
5 as succinct as I can make it, Your Honor.

6 JUDGE GIBSON: Okay. Counsel for the NRC
7 staff again, in footnote 142 of the Applicant's
8 answer, it asserts that the NRC considered the design
9 construction and operation of the main cooling
10 reservoir when it performed its safety review of Units
11 1 and 2 in 1986.

12 Could you describe for us how extensive
13 that review was and whether anything materially has
14 changed since that time? Or you just don't know?
15 That's okay. That's an okay answer.

16 MS. KIRKWOOD: I think we would have to --
17 that would relate to the STP Units 1 and 2. I will
18 tell you I do agree with what they said here that that
19 is what our safety evaluation said. And I agree that
20 it's in the updated final Safety Analysis Report for
21 Units 1 and 2 for the operating units. We didn't
22 include it in our answer because we couldn't find the
23 publicly available version that the Applicant was able
24 to identify. But in terms of the level of that
25 analysis or why we did it then or what was involved in

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1 it --

2 JUDGE GIBSON: Or whether anything
3 materially has changed since, you just don't know.

4 MS. KIRKWOOD: I mean it's not a -- it's
5 not a safety-related structure, so in terms of the NRC
6 inspection processes, it wouldn't really come into it.

7 JUDGE GIBSON: Just to be sure for the
8 record we understand this. when you say it's not a
9 safety-related structure, what does that mean?

10 MS. KIRKWOOD: I'm going to try to give
11 you our personalized definition.

12 JUDGE GIBSON: Okay.

13 (Pause.)

14 MS. KIRKWOOD: A safety-related structure,
15 system and component means those structures, systems,
16 and components that are relied upon to remain
17 functional during and following design-basis events.
18 To ensure the integrity of the reactor coolant
19 pressure boundary, the capability to shut down the
20 reactor and maintain it in a safe shutdown condition
21 or the capability to prevent and mitigate the
22 consequences of accidents which could result in
23 potential assay exposures.

24 There's a little more to it, but that's
25 the definition in part 50.

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1 JUDGE GIBSON: Okay, so there was a review
2 that the NRC staff made of this structure in 1986, but
3 it was a limited review. Is that a fair statement
4 because it was not a safety-related structure?

5 MS. KIRKWOOD: That's probably true. What
6 I'm not totally -- yes, that would tend to be true,
7 but since that was 20 years ago.

8 JUDGE GIBSON: It was a while ago.

9 MS. KIRKWOOD: We don't have the staff
10 here who would have done that review.

11 JUDGE GIBSON: Okay, fair enough. Can you
12 all fill in any blanks here for us? I realize you all
13 may not have been involved in 1986 and us either. Can
14 you fill in any blanks about that?

15 MR. FRANTZ: No, I can't. I'm not
16 familiar with the details of the staff's review.

17 JUDGE GIBSON: Okay, let's go to -- hold
18 on just a minute. Does your technical person have
19 something we need to hear?

20 MR. FRANTZ: I'm sorry, Judge, go on.

21 JUDGE GIBSON: That's okay. Now I
22 understand recognizing we don't know the involvement,
23 scope of the involvement of the NRC other than it was
24 not a safety-related structure and so it was a lower-
25 level review, my understanding from reading your

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1 pleadings is that the Texas Commission on
2 Environmental Quality has also been involved in
3 reviewing and looking at this embankment.

4 MR. FRANTZ: That's correct.

5 JUDGE GIBSON: What is its role and what
6 is the scope of its analysis of the integrity of this
7 embankment?

8 MR. FRANTZ: I believe they have to
9 approve the structure and they do require, as I say,
10 periodic maintenance and inspection. They also
11 require third-party inspection. We do refer in our
12 answer in that one footnote that you mentioned to the
13 Texas Administrative Code which governs all of this.

14 JUDGE GIBSON: Okay, and the interest that
15 the State of Texas has in that embankment is?

16 MR. FRANTZ: They have basically
17 jurisdiction over a lot of the dams and embankments in
18 the state. And as a result, they have approval
19 rights.

20 JUDGE GIBSON: And this would be
21 independent of its responsibilities under the NPDES
22 system that by this time it had been delegated, that
23 program from the state, EPA had.

24 MR. FRANTZ: That's correct.

25 JUDGE GIBSON: Now there is -- I believe

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1 you alluded to this earlier, but there is an NPDES
2 permit that regulates the discharges from the plant
3 into the main cooling reservoir, is that correct?

4 MR. FRANTZ: Yes. It's a TPDES permit
5 issued by the State of Texas.

6 JUDGE GIBSON: As a result of delegation
7 of the NPDES?

8 MR. FRANTZ: Yes. Just to provide you
9 with the complete picture, any of the discharges into
10 the main cooling reservoir are subject to the TPDES
11 permit and then discharges from the main cooling
12 reservoir into the Colorado River are also governed by
13 permit provision.

14 JUDGE GIBSON: And with the exception of
15 any radioactive substances that may be in that
16 discharge and those would be regulated by the NRC, is
17 that correct?

18 MR. FRANTZ: That's correct.

19 JUDGE GIBSON: In terms of the
20 inspections, monthly inspections, preventive
21 maintenance, third-party inspections that the state
22 requires be made of this dam associated with the main
23 cooling reservoir, have any of those inspections
24 evaluated the longevity of the dam itself?

25 MR. FRANTZ: My understanding and we're

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1 getting pretty far into my depth of knowledge here, my
2 understanding is that these structures basically have
3 almost an indefinite lifetime if they're properly
4 inspected and maintained.

5 JUDGE GIBSON: I suppose they will
6 probably say the same thing in New Orleans before
7 Hurricane Katrina too.

8 MR. FRANTZ: Well, there's a little
9 difference there. Those embankments were only
10 designed for I think a Level 3 or Level 4 hurricane.
11 They were not designed for the Level 5 hurricane that
12 actually hit New Orleans.

13 JUDGE GIBSON: Do you know if this one is
14 designed for a Level 5 hurricane or not?

15 MR. FRANTZ: I don't believe it would be
16 material to the structural integrity. There in New
17 Orleans you had water overtopping the dike system in
18 New Orleans because of the water influx. The main
19 cooling reservoir doesn't have a body of water flowing
20 into it. The only way you have water going into that
21 reservoir is through pumping or through rainfall. so
22 you don't have that same kind of concern that you had
23 in New Orleans.

24 JUDGE GIBSON: Okay. Petitioners, you've
25 heard the NRC staff and the Applicant's views about

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1 the embankment and the role of TCEQ and the NRC. Do
2 you have any response to this?

3 MR. EYE: Briefly.

4 JUDGE GIBSON: Thank you.

5 MR. EYE: The longevity of the embankment
6 which is really implicit in the contention or part of
7 the contention we've raised in Number 8. Petitioners
8 are not satisfied with a representation that these
9 structures have an indefinite life span without some
10 sort of underlying either empirical evidence or
11 something to support that.

12 I mean I respect Mr. Frantz. I think he's
13 a fine attorney and does a very good job representing
14 his client, but we're dealing now with structures that
15 probably were outside the scope of -- well, they're
16 outside the scope of any class I took in law school
17 and I suspect they were for Mr. Frantz as well.

18 Indefinite longevity of a man-made
19 structure, it's hard to see how that can be without --
20 I'm not saying it can't happen, but I think that in
21 order to support that, there ought to be some sort of
22 proof and again, nobody plans for these things to
23 fail. Nobody planned for the Church Rock, New Mexico
24 structure to fail or for the slurry. Nobody planned
25 for that. It happened, rather suddenly, rather

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1 unexpectedly. And the last thing we want is to have
2 that happen here. So I would think that this is a
3 legitimate contention to be raised.

4 One other point, I would take issue and I
5 didn't hear the entire definition. I only heard part
6 of the definition that was read by counsel for the
7 staff about what a safety-related structure was. But
8 one part that I thought I did hear was that it would
9 have something to do with minimizing or preventing
10 off-site exposures. If this embankment fails, there
11 will be off-site exposures to tritium, at least, or
12 perhaps other radionuclides. That seems to be would
13 put it squarely within the definition of a safety-
14 related structure, at least arguably.

15 JUDGE GIBSON: Okay.

16 MR. FRANTZ: Judge Gibson, if I could
17 briefly respond to that.

18 JUDGE GIBSON: Sure.

19 MR. FRANTZ: The definition of safety-
20 related is off-site doses in the range of limits in
21 part 100 which is 25 rems. What we've been talking
22 about in the main cooling reservoir is well within the
23 limits of Appendix I which is 3 millirem and the
24 limits in Part 100 which are basically 100 millirem
25 for doses to off-site individuals. So we're not even

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1 close to the limits in Part 100.

2 JUDGE GIBSON: And let me just while you
3 raise that question of the permissible exposure limit
4 or the maximum contaminant level under the Safe
5 Drinking Water Act, if you had a significant rainfall
6 event like a Category 5 hurricane that would actually
7 cause this structure to break, I guess, or flood or
8 whatever the thing is and the contents would might
9 somehow enter the Colorado River, presumably the
10 Colorado River itself would probably be in a pretty
11 high state of flood. So you would be having
12 constituents in this reservoir that would be at a
13 lower level of concentration by virtue of the added
14 water, that would then be going to the Colorado River
15 which presumably would not have radiation in it
16 previously and then they would be at an even lower
17 level of concentration as a result of that rainfall,
18 and while I realize the solution to pollution is not
19 pollution, still we have a -- the concentrations, if
20 they're below the maximum contaminant level under the
21 Safe Drinking Water Act in the reservoir which is not
22 used for drinking water anyway, we'd be having a much
23 lower concentration if it were actually released.

24 MR. FRANTZ: On the scenario you
25 postulate, that would be true, but even if you assume

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1 no dilution, you would still have small radiological
2 impacts.

3 JUDGE GIBSON: Because you're already
4 below the maximum contaminant level in that reservoir
5 and if you went into another water body it would be at
6 even a greater level of dilution?

7 MR. FRANTZ: That's correct.

8 JUDGE GIBSON: Okay.

9 MS. KIRKWOOD: May the staff be heard in
10 response to something --

11 JUDGE GIBSON: Sure. Sure. By all means.
12 I didn't mean to --

13 MS. KIRKWOOD: Just to clarify the end of
14 that definition which Mr. Eye may not have caught was
15 what safety-related structure or component is it has
16 the capability to prevent or mitigate the consequence
17 of accidents which could result in potential off-site
18 exposures. It's not -- so simply the fact that there
19 was releases below regulatory limits doesn't transform
20 that -- the main cooling reservoir into some type of
21 safety-related structure system or component and that
22 argument certainly wasn't raised in the petition.
23 It's not that this is viewed as a contention of
24 omission regarding the safety of the dam structure.
25 There has been no regulatory support provided for the

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1 fact that this would be something that needs to be
2 reviewed as part of this COLA adjudication.

3 JUDGE GIBSON: Okay.

4 MR. EYE: Well, they covered it in the
5 FSAR. Was that gratuitous? I think not. It was
6 there. It's a large structure that's setting there
7 that is integral to the operation and safety of this
8 plant.

9 JUDGE GIBSON: Okay. Let's move on, if we
10 could to the possibility of the main cooling reservoir
11 becoming a dry lake bed.

12 Your argument, if I understand correctly,
13 is that as a result of climate change we could have a
14 severe drought condition that would cause the water in
15 the main cooling reservoir to evaporate or percolate
16 into groundwater, whatever. The point is that there
17 would be inadequate water there perhaps after this
18 facility were operating. And that there would be
19 radioactive constituents in the sediment that in turn
20 would be perhaps mobilized as particles in the air and
21 that those might then be transported off. Is that a
22 fair statement of what your concern is?

23 MR. EYE: It is, Your Honor.

24 JUDGE GIBSON: Okay. Now in support of
25 that, you asserted that there was a 2007 article in

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1 Science suggesting that the southwest portion of the
2 United States may be in a permanent drought condition
3 because of global warming.

4 Do you consider Matagorda County to be
5 part of that Southwestern United States that they were
6 referring to in Science Magazine?

7 MR. EYE: I don't know that the boundaries
8 were strictly defined, Your Honor, as I recall the
9 study. I don't think -- I think they were using it
10 sort of a broad, geographic sense. But
11 geographically, when we think of the southwest part of
12 the United States, I think it's fair to say that this
13 location is at least in it or on the periphery of it.

14 Some climate model maps actually consider
15 this part of the plains. That the plains extend clear
16 down, north of the Canadian border, of course, but
17 what we're more concerned with is south Canadian
18 border, really all the way down to here. So it's
19 geography, I suppose, like a lot of science is not as
20 precise as we'd like it and practitioners differ in
21 terms of how they characterize particular locations.

22 But I think the important part of this is
23 that the head waters of the Colorado certainly have
24 origins that would implicate that particular study and
25 if we're talking about adequate inflow, then a

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1 permanent drought or a protracted drought, not unlike
2 that which was separate in the southeast within the
3 last year or so that implicated plant operations is a
4 circumstance that in our contention we believe ought
5 to be considered.

6 JUDGE GIBSON: Okay.

7 MR. FRANTZ: May I make one point on that?

8 JUDGE GIBSON: Yes.

9 MR. FRANTZ: First of all, the Science
10 article was not actually referenced in their petition
11 to intervene. It was not introduced until they
12 submitted their reply. We have submitted a motion to
13 strike a reference to the Science Magazine article on
14 the grounds that it was not a part of the petition and
15 it was incorporated for the Petitioners to attempt to
16 raise this for the first time as part of their reply.
17 And therefore, we would request the Board to strike
18 the reference to the Science article and not to
19 consider it as part of this contention.

20 JUDGE GIBSON: Do you have any views about
21 whether Matagorda County fits within the Southwestern
22 United States as described in this Science article?

23 MR. FRANTZ: The Science article was
24 somewhat vague and they did have some maps, but the
25 maps were -- it appears to be not Matagorda County.

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1 Again, the maps that we have are so -- of such poor
2 quality that I can't make a definitive determination
3 of whether or not Matagorda County is part of this or
4 not.

5 JUDGE CHARBENEAU: Just a couple of
6 questions about tritium. This is for the Petitioners.
7 Is there a dispute between the tritium concentrations
8 that you cite in the contention and the tritium
9 concentrations discussed in the application?

10 MR. EYE: Is this on the part of
11 Contention 8 that deals with dilution factors?

12 JUDGE CHARBENEAU: Yes.

13 MR. EYE: Could you repeat your question
14 again, Your Honor.

15 JUDGE CHARBENEAU: Is there a dispute
16 between the tritium concentrations that you site in
17 the contention where it's not specific about what they
18 were, and the tritium concentrations that are cited in
19 the application which is in Contention 9 as well, I
20 think.

21 MR. EYE: I don't believe so, Your Honor,
22 I don't believe so.

23 JUDGE CHARBENEAU: That takes away my next
24 question.

25 JUDGE GIBSON: Judge Arnold?

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1 JUDGE ARNOLD: I have gotten the
2 impression from all of this that a lot of your
3 contention, the bad consequences that may result from
4 this are based upon your interpretation of the NRC
5 policy that basically any exposure to radioactive
6 material can have potentially bad effects. Is that a
7 correct interpretation, impression?

8 MR. EYE: I think that that's the NRC's
9 policy. That any exposure to ionizing radiation
10 carries with it the increased risk of health effects
11 which includes radiation-related diseases and genetic
12 defects.

13 JUDGE ARNOLD: And you'll stick with that
14 despite the fact that they've set limits that they've
15 said if you're below that limit, the consequence is
16 small, but you're kind of looking in that small region
17 and saying there are still consequences?

18 MR. EYE: Particularly since there are
19 cumulative effects. An accumulation of small
20 exposures, for example, could cause health effects or
21 have a greater risk of health effects. It is a
22 cumulative effect. So I don't take issue with what
23 you said, but I don't also want to agree with
24 something that sets -- that assumes that a limit,
25 whether it be arbitrary or not, that is set somehow

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1 below which we can disabuse ourselves of concerns
2 about health effects related to radiation exposure
3 because I don't believe that's a policy that the NRC
4 would necessarily endorse. They have certainly set
5 regulatory limits. But it doesn't take away from the
6 underlying concern that any exposure carries with it
7 an increased risk of health effects.

8 JUDGE ARNOLD: Thank you.

9 MR. EYE: You're welcome.

10 MR. FRANTZ: If I could just respond very
11 briefly to that?

12 JUDGE ARNOLD: Sure.

13 MR. FRANTZ: Background radiation doses
14 are approximately 300 millirem per year. The NRC
15 limits for off-site doses are approximately 100
16 millirem per year in Part 20. The Appendix I limits
17 for liquid effluents which we're talking about here
18 are 3, I believe 3 millirem per year. And actually
19 effluents from STP are orders of magnitude of less
20 than that.

21 Given the fact that we're many, many
22 orders of magnitude less than the background doses to
23 say that this is a significant impact is just
24 ridiculous. There just is no significant impact from
25 dose levels that we're talking about.

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1 JUDGE GIBSON: Go ahead.

2 MR. EYE: I don't want to repeat the
3 policy about exposures to ionizing radiation.
4 Exposures are not ridiculous. They have health
5 effects. And it's not me saying it, it's the NRC.

6 JUDGE GIBSON: Okay, I believe we're ready
7 to go to Contention 9.

8 Counsel for Petitioners through Contention
9 9, you are concerned about the possibility that
10 tritium levels in nearby groundwater are rising
11 because the main cooling reservoir is unlined and that
12 these levels will continue to rise once Units 3 and 4
13 go on stream. Is that correct?

14 MR. EYE: That's a fair characterization,
15 Your Honor.

16 JUDGE GIBSON: Now we've alluded to this
17 previously, but if you'll look at page 40 of the
18 Applicant's answer, footnote 153, the Applicant has
19 countered that the design of the advanced cooling
20 water reactor is such that we're not going to have
21 radioactive contaminants to be discharged in normal
22 operation and I think your contention seems to imply
23 that there is going to be some kind of concomitant
24 increase when 3 and 4 go onstream.

25 The Applicant is saying it won't at all.

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1 It's going to be like the same amount that's been
2 discharged. There will continue to be in that
3 reservoir because Units 3 and 4 are -- have a
4 different design.

5 Is there anything that you can point us to
6 to suggest that the South Texas advanced cooling water
7 reactors are going to be releasing tritium at all,
8 much less at levels that would cause some kind of a
9 measurable increase in nearby groundwater?

10 MR. EYE: Your Honor, other than and this
11 may have been a premise that was mistaken and if it
12 is, it is. Other than the premise that there would be
13 some additional tritium loading over the course of
14 operation of numbers 3 and 4, I don't know that there
15 was an assumption that it would necessarily be at a
16 particular level or it would be at a level that was
17 comparable to 1 and 2, but there was a built-in
18 assumption that there would be some additional tritium
19 loading over the course of operation of Units 3 and 4
20 with a concomitant increase in the levels of tritium
21 in the MCR and therefore a greater increase of
22 likelihood of tritium groundwater contamination
23 through seepage.

24 JUDGE GIBSON: Okay. I guess counsel for
25 the Applicant, I want to make sure that I understand

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1 your argument as we go back and evaluate these
2 contentions for purposes of admissibility.

3 At the most simplistic level, I understand
4 you're claiming that the Petitioners have failed to
5 plead the facts necessary to get this contention
6 across the admissibility threshold.

7 MR. FRANTZ: That's correct.

8 JUDGE GIBSON: And specifically, that
9 Units 3 and 4 shouldn't be releasing tritium. But are
10 you also asserting that this is a design
11 characteristic and as a consequence that there is
12 something that prevents them from asserting this
13 contention in this proceeding?

14 MR. FRANTZ: No, we're not claiming that
15 they are alleging any inconsistency with the DCD or
16 that the DCD should be changed.

17 JUDGE GIBSON: Okay, thank you. You've
18 made a reference in footnote 156 to the 20,000
19 picocuries per liter. Is that the maximum contaminant
20 level for tritium?

21 MR. FRANTZ: That's the EPA drinking water
22 standard. I believe the NRC standard is actually a
23 bit higher than that.

24 JUDGE GIBSON: Okay, but when you say
25 higher, you mean they allow more, but EPA's are lower,

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1 the maximum contaminant level under the Safe Drinking
2 Water Act?

3 MR. FRANTZ: That's correct.

4 JUDGE CHARBENEAU: Just for clarification,
5 the NRC levels for discharge which is different than
6 drinking water?

7 MR. FRANTZ: That's correct.

8 JUDGE CHARBENEAU: So it's a different
9 intent?

10 MR. FRANTZ: Yes.

11 JUDGE GIBSON: On page 41 of your answer,
12 you talk about pressure relief wells that discharge to
13 surface waters.

14 MR. FRANTZ: Yes.

15 JUDGE GIBSON: And are you essentially
16 saying that you have to make an apples and apples
17 comparison between groundwater wells and groundwater
18 wells and what the Petitioners are doing here is
19 trying to compare concentration in a pressure relief
20 valve with a groundwater well and that those are two
21 different types of structures?

22 MR. FRANTZ: They are different and you
23 would expect them to have different concentrations of
24 tritium. In fact, they do have different
25 concentrations of tritium.

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1 JUDGE GIBSON: Right.

2 MR. FRANTZ: But regardless of the source,
3 they're all still within the EPA drinking water
4 standards.

5 JUDGE GIBSON: Okay.

6 JUDGE CHARBENEAU: Is there any
7 distinction between the discussion of tritium in
8 Contention 9 and the discussion of tritium in
9 Contention 8?

10 MR. EYE: Well, to the extent that
11 Contention 8 doesn't address specifically groundwater
12 as instead primarily concerned about surface water
13 concentrations. That would be the difference.

14 JUDGE CHARBENEAU: Okay, and then there's
15 reference to the increasing concentrations in
16 groundwater and the discussion of Contention 9.
17 What's the basis for that?

18 When I looked at the material in Dr. Ross'
19 report which looked like that was the extent of the
20 tritium data that was discussed.

21 MR. EYE: Well, for example in the data
22 shown in -- for MCR relief well number 238, the
23 trendline appears to be increasing over time, tritium
24 concentrations.

25 JUDGE CHARBENEAU: But if you look at --

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1 I don't have it in front of me, but if you look at the
2 plot that she provides, you see an increasing
3 concentration and leveling off. I think that's all
4 from pressure relief wells. It levels off and for the
5 last ten years has stayed pretty much and about
6 something on the order of half of the drinking water
7 standard. I did not see anything that made me think
8 that concentrations were increasing.

9 MR. EYE: Well, I think it was her
10 contention that there was -- that at least for a
11 number of years, that there was a trendline that
12 tended to show an increase and that's specifically
13 between '90 and looks like '94, '95.

14 JUDGE CHARBENEAU: If you look at that
15 same plot from '90 to I don't remember what the last
16 year was, 2000 and something.

17 MR. FRANTZ: 2006.

18 JUDGE CHARBENEAU: Yes, if you look at
19 that plot, you can't discern an increase -- I could
20 not discern an increase in concentration.

21 MR. EYE: It flattens out at -- looks like
22 about 1998, 1999, more or less. It flattens out and
23 then there is really not necessarily a significant,
24 but I think what -- if I can extrapolate from her
25 argument that it started out, I mean 1990, which is

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1 the first year that she has data reported, the
2 operation, the plant had been in operation for at that
3 point three or four years and you get this increase
4 and then it does level off, but there was an
5 increasing trend for the first seven years of
6 operation.

7 JUDGE CHARBENEAU: Thank you.

8 JUDGE ARNOLD: A question similar to the
9 last one I asked. Are you alleging that these tritium
10 concentrations are likely to increase above the
11 drinking water concentration or are you once again
12 saying that any radiation can have negative health
13 effects?

14 MR. EYE: Your Honor, to the extent that
15 the ABWR has a diminished tritium discharge, I should
16 say, that would not reach above 20,000 picocuries per
17 liter, then that regulatory concern would be, I guess,
18 diminished or eliminated. But again, as your question
19 suggests that doesn't necessarily eliminate the health
20 effect concern. I would incorporate my answer to your
21 last question in that regard.

22 JUDGE ARNOLD: Thank you.

23 MR. EYE: You're welcome.

24 JUDGE GIBSON: Let's move to Contention
25 10. There's a couple of things with respect to this

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1 contention that I would like you to address. You've
2 asserted that the reactor building, the ultimate heat
3 sink and the reactor service water pump houses are
4 below design basis flood level so that in the event
5 there is a breach of the main cooling water reservoir,
6 they would be under water. Is that correct?

7 MR. EYE: That's what we said, Your Honor.

8 JUDGE GIBSON: And this assertion is based
9 on the fact that the Applicant plans to raise the
10 water level of the main cooling reservoir from 47 to
11 49 feet. Is that correct?

12 MR. EYE: Yes, Your Honor.

13 JUDGE GIBSON: In its answer, the NRC
14 staff argues that the design basis flood level is the
15 level of flooding the site is anticipated to sustain
16 if there were a breach of the embankment, not if the
17 main cooling reservoir were to flood. You noticed
18 that?

19 MR. EYE: Yes, sir. We certainly did.

20 JUDGE GIBSON: Do you agree or disagree
21 with that and if you disagree, why?

22 MR. EYE: Well, if there's a breach of the
23 embankment, it presumes that there's the possibility
24 or greater possibility for flooding. And breach of
25 the embankment isn't quantified in the staff's answer,

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1 right. -- A breach of the embankment that doesn't
2 implicate -- that doesn't go below the level of the
3 water, obviously, isn't going to be a -- the surface
4 level of the water, isn't going to be a problem. But
5 if the breach is serious enough or sustained for a
6 long enough period of time, then there is, it seems
7 the possibility for flooding.

8 Now this was a confusing contention for us
9 because on the one hand there was certainly language
10 that suggested that the design basis for the flood was
11 the 48 or 49 feet and on the other hand, in another
12 part that frankly escaped my noticed during the
13 drafting process, that the top of the embankment is
14 listed at 65.75 feet.

15 So it's -- if there's a breach of the
16 embankment, a flooding possibility would seem to be
17 more palpable. It depends on the nature and extent of
18 the breach, however. A minor breach that doesn't
19 implicate the -- doesn't go to the surface of the
20 water, probably not an issue. I think it is
21 determinant on how bad the breach would be. Complete
22 breach, you'd probably have a different question or a
23 different circumstance in which to deal with.

24 Your Honor, I would also point out that in
25 the FSAR at 2.4S2-3, it does say that a maximum flood

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1 elevation of 48.5 feet was determined at STP Units 3
2 and 4 as a result of the MCR embankment breach. And
3 it says this flood elevation of 48.5 feet also
4 constitutes the design basis flood at the site.

5 JUDGE GIBSON: Okay. So you're saying
6 you're confused?

7 MR. EYE: What I'm saying is based on that
8 particular statement, if they say that 48.5 feet is
9 the design basis flood at the site, and they're
10 operating the MCR more or less 48.5, 49 feet, then
11 yes, I think that that raises the implication for
12 potential flooding.

13 JUDGE GIBSON: Okay.

14 MR. EYE: And that was, I think, the
15 underlying premise of the contention.

16 JUDGE GIBSON: Could you all address that?

17 MR. MATTHEWS: I think there's some
18 confusion about what the design basis flood is for and
19 how it's used. First off, the design basis flood is
20 that you design the facility so that it would be --
21 all the safety systems would be sustained up to that
22 flood level, assuming that you had a flood at the
23 plant, the actual facility to that level. So
24 basically there are mechanisms in place so that, for
25 example, doors below that level open out and are water

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1- sealed and there would be actions to close them in
2 advance of a flood. You would have venting that would
3 be above the design basis flood level so that even at
4 that flood level, all the plant systems would be fully
5 protected.

6 There's also confusion here over the
7 original COLA and the amendment to this section of the
8 COLA that was made in February 2009. So we really
9 should be talking about the February 2009 amendment
10 which actually put the design basis flood at 40 feet
11 mean sea level instead of 48.5 mean sea level.

12 When we're talking about the level inside
13 the main cooling reservoir, that's the level of the
14 water inside the reservoir. And if you imagine the
15 reservoir like an above-ground pool in your backyard,
16 if you have a breach in the pool, it's going to flood.
17 It starts at 6 feet or whatever it is inside the pool,
18 but obviously 10 feet away or 20 feet away, you're not
19 going to have water at 6 feet. It's going to
20 dissipate.

21 And here, the center line between the two
22 units and the embankment is over 2300 feet, so nearly
23 a half mile away. So if you had a breach in the
24 embankment, the water inside the main cooling
25 reservoir rushing out would dissipate over land.

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1 Now the NRC asked us, essentially, the
2 original design basis flood was established assuming
3 that miraculously the entire embankment disappeared
4 and all that water instantly rushed to the plant. And
5 that obviously wasn't realistic. And the NRC has
6 issued guidance about how embankments are to be
7 treated and asked that the site do an analysis of what
8 is a conceivable event where you would get a breach.
9 And that detailed analysis was done. It's described
10 in the February 23, 2009 amendment and essentially
11 shows that you would have a breach of a width of a
12 maximum width of around 417 feet.

13 The breach in two cases was assumed to be
14 the closest point of the embankment to each of the two
15 units, Unit 3 and Unit 4. And so you have a 417 foot
16 breach, the water rushes out and you actually have
17 that for some period of time, the maximum flood level
18 that reaches the plant. And the maximum flood level
19 that was calculated using extremely conservative
20 assumptions in calculating the maximum flood level was
21 38.5 feet. And that's why we now have a 40 foot
22 design basis for Units 3 and 4.

23 JUDGE CHARBENEAU: Can I ask a follow up?

24 JUDGE GIBSON: Please.

25 JUDGE CHARBENEAU: I'm trying to get a

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1 picture in my mind of this event. And we often look
2 at failures of dams and there's a code used called dam
3 break. And I'm assuming there's some version thereof,
4 but you're looking at initial water level within the
5 reservoir that is still at 48.5 feet?

6 MR. MATTHEWS: Actually, the analysis was
7 done assuming a water level of 50.9 feet which also
8 took into account the potential for additional
9 rainfall and adverse wind conditions pushing the water
10 up against the embankment.

11 JUDGE CHARBENEAU: So we have nominally 50
12 plus feet at the time of break and you have a wall of
13 water that's rushing out and spreading as it moves and
14 floods up against the facility. And at that point is
15 where the water level is at 40 water.

16 MR. MATTHEWS: At 38.5 feet after a period
17 of time when you have complete failure and what was
18 assumed was a piping failure through the embankment
19 and the width for the maximum width was calculated
20 using what's called the froehlings equation. There
21 are a number of different approaches to calculating
22 the width for the breach. The froehlings equation was
23 the most conservative and the one example that's
24 discussed actually in the FSAR and I can give you a
25 reference for that in a second, is an actual event at

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1 the Teton Dam and the froehlings equation produces a
2 value of 722 feet and the actual event had a value of
3 495 feet. And that was a dam that had much higher
4 water levels, much greater force and would assume to
5 have been a wider breach.

6 So all the assumptions going into this
7 analysis were extremely conservative.

8 JUDGE CHARBENEAU: So you get the water
9 level up almost 40 feet and then as the water moves
10 out it will all dissipate. Have I got the right
11 picture?

12 MR. MATTHEWS: It might be helpful to go
13 ahead and pass around the analysis. These are figures
14 2.4S.4-2(1)(a) and -2(1)(b) which show the --

15 MR. EYE: Counsel, where is this from
16 again?

17 JUDGE GIBSON: Hold on just a second. Let
18 him pass them out. He'll answer your question.

19 MR. MATTHEWS: These are figures from the
20 method in the FSAR.

21 JUDGE CHARBENEAU: Are you going to tell
22 us what this means?

23 JUDGE GIBSON: Before you do, counsel for
24 Petitioners was not clear about where this was from.
25 Is this figure 2.4S-4-2(1)(b) from the --

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1 MR. MATTHEWS: 2(1)(a) ---

2 JUDGE GIBSON: Operating license
3 application?

4 MR. MATTHEWS: Yes, these are changes to
5 the COL from a response to RAIs that was filed on
6 February 29th, I'm sorry, February 23rd, 2009.

7 JUDGE GIBSON: Hold on just a minute. I
8 want to make sure that he's got copies before you
9 start explaining yourself or --

10 MR. EYE: May I inquire as to are these
11 available in the COLA that's filed or on the website?

12 JUDGE GIBSON: You want -- are these
13 available on the website?

14 MR. MATTHEWS: Should be. It's a
15 response to an RAI on the record.

16 JUDGE GIBSON: Let me, you think they
17 should be. Let's ask the staff. Are they available
18 on line for the Petitioners?

19 MS. KIRKWOOD: This was part of your RAI
20 response?

21 MR. MATTHEWS: It was February 23rd 2009
22 response to RAIs.

23 MS. KIRKWOOD: They should be. They
24 should be in ADAMS. I don't have a -- I was checking
25 to see if I happen to have it with me.

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1 JUDGE GIBSON: I don't know who is
2 responsible for filing this, but I will tell you that
3 I asked specifically for this document and we were not
4 able to find it. It may be that just shows my own
5 deficiency in searching, but it is also possible, I
6 think, one possibility is that it was not actually
7 uploaded to their website so that it would be
8 accessible to Petitioners.

9 MR. MATTHEWS: Your Honor, in footnote 167
10 of our brief are the ADAMS accession numbers for these
11 documents.

12 JUDGE GIBSON: Okay. But that only means
13 that's what the ADAMS accession numbers are. It
14 doesn't mean that it was filed by someone else and is
15 accessible to the Petitioners.

16 MS. KIRKWOOD: Your Honor, I'll confirm.
17 We'll confirm tonight, if that's okay.

18 JUDGE GIBSON: That's fine. That's fine.

19 MS. KIRKWOOD: This specific document, and
20 I'll confer to make sure that they are, and we'll give
21 the ADAMS accession --

22 JUDGE GIBSON: That will be fine.

23 MR. FRANTZ: And Your Honor, also when we
24 were writing the brief, I personally went on to ADAMS
25 and pulled off these documents from ADAMS.

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1 JUDGE GIBSON: Well, then that probably
2 says something about how deficient in my searching
3 capabilities are, but be that as it may, we'll get an
4 answer tomorrow about what -- whether this information
5 is available or not and in the interim, let's go ahead
6 and at least try to explain where they are, whether
7 it's accessible, it's something we can address
8 tomorrow.

9 JUDGE ARNOLD: What was the date of it?

10 MR. MATTHEWS: February 23, 2009.

11 (Pause.)

12 MS. KIRKWOOD: Judge, if the staff could
13 give a little insight as to how it updates these
14 things, would that be helpful?

15 JUDGE GIBSON: Yes. How that you've heard
16 what the difficulties were finding it, perhaps you can
17 explain.

18 MS. KIRKWOOD: I can explain. So every
19 document that comes in on the South Texas docket, if
20 it is -- every document that comes in on South Texas
21 docket with the small exception for maybe safeguards
22 information is put into ADAMS and is either marked as
23 public or nonpublic and is attached to the South Texas
24 docket number. So you can always find everything
25 related to that docket under the -- in ADAMS under

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1 South Texas docket number which I believe is 52006,
2 013, 52013 and 12 and 012.

3 (Laughter.)

4 That's 012, not 112. Now, annually, the
5 Applicant is required to update their whole FSAR which
6 rolls together all of the RAI responses in the last
7 year and that's when the staff then, when we get the
8 full revision to the FSAR we'll put it up on the
9 website where you can go in and automatically pull out
10 the sections that would have the revisions. But the
11 on-going responses and RAI responses are generally
12 publicly available unless they contain proprietary
13 information or otherwise withholdable and are able to
14 be found under the South Texas docket number.

15 I hope that's helpful.

16 MR. EYE: I guess our confusion was that
17 I understood that this was a function responding to an
18 RAI.

19 JUDGE GIBSON: That's correct. That was
20 in response to an RAI. That part is correct.

21 MR. EYE: And our confusion arises from
22 looking at the RAI list of responses and we can't find
23 it on there. And so that --

24 JUDGE GIBSON: That's the same problem
25 that the ASLBT had. Go ahead.

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1 MR. MATTHEWS: I believe if you did a
2 search on the docket, you would definitely find it in
3 ADAMS. Or if you used the ADAMS accession number that
4 we cited in footnote 167 of our answer.

5 In any event, I just wanted to briefly
6 because sometimes the picture does say a thousand
7 words. What you're looking at here is maximum flood
8 levels in Figure A, the analysis that was done for
9 Unit 3 which is to the right. The footprint of the
10 unit you see about a half a mile away from the
11 embankment. And what was assumed was a piping failure
12 that resulted in a complete failure of the embankment.
13 And that peak flood level, the yellow is 40 feet and
14 so that the peak actually reaching up to the plant or
15 to the individual unit was 38.8 feet. And that really
16 is the basis upon which 40 feet was decided as a round
17 number to be the design basis for the plant.

18 And then in Figure 21(b), page 33 at the
19 bottom, that's the plot of the analysis of the breach
20 that is again closest. The point of the embankment,
21 it's assumed that the breach took place or the piping
22 failure took place at the embankment at the point on
23 the embankment closest to the footprint for Unit 4.
24 And again, you can see that you never have flood
25 levels reach 40 feet at the actual facilities of the

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1 plant.

2 And then I would point out as well that
3 the ultimate heat sink and the reactor service water
4 are, in fact, water tight to 50 feet. So those are
5 additional features of the plant that would sustain
6 even higher flood levels than the design basis flood.

7 MR. EYE: Your Honor?

8 JUDGE GIBSON: Yes.

9 MR. EYE: I would like to for our record,
10 I want to lodge an objection to the extent that this
11 is going to be an admitted exhibit and I don't know
12 that it's actually been offered as one since it's come
13 out of their brief. I know the procedures here
14 probably don't necessarily anticipate offering and
15 admitting exhibits, but to the extent that we didn't
16 have this before and a search of the website would not
17 have yielded it or at least to the search that we did,
18 we would object to its admission at this time.

19 JUDGE GIBSON: Your objection is noted.
20 I think we will just simply use it as a demonstrative
21 to amplify on the explanation that I had to a
22 question. And we're not going to worry about treating
23 it as an exhibit to which you would need to object.
24 But your objection is noted anyway.

25 MR. EYE: Thank you, Your Honor.

1 JUDGE GIBSON: Now the calculations that
2 go with this demonstrative, those are in the record as
3 well?

4 MR. MATTHEWS: Yes.

5 JUDGE GIBSON: And are they in that multi-
6 page attachment that went with your letter?

7 MR. MATTHEWS: They're all responses to
8 RAIs. The response to the RAI is an amendment to the
9 COLA.

10 JUDGE GIBSON: Right.

11 MR. MATTHEWS: So in that February
12 submittal, you'll find all the detailed information of
13 the analysis that was done as well as these figures
14 which replace figures in the COLA and amend the COL
15 application.

16 JUDGE GIBSON: Okay.

17 MR. MATTHEWS: That's why I don't offer
18 these as an exhibit. They are on the docket and a
19 matter of record.

20 JUDGE GIBSON: That's fine. Okay, counsel
21 for Petitioners, recognizing that you may not have had
22 this demonstrative, you did have these calculations,
23 did you not, that are in this attachment to this
24 letter?

25 MR. EYE: I believe so.

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1 JUDGE GIBSON: It appears to me and I
2 certainly stand to be corrected because I'm at best an
3 idiot savant, I suppose, it looked to me like what you
4 were utilizing were the calculations and the
5 assumptions that were made in the earlier report and
6 not the ones that were done in this updated revision.

7 MR. EYE: Your Honor, we went to that
8 which we had available to us in the online versions
9 and those were the numbers that we used.

10 JUDGE GIBSON: So it would be fair to say
11 then that your contention didn't address the
12 calibrations that were in the February 23, 2009 letter
13 and attachments, is that a fair statement?

14 MR. EYE: I believe so. Right. We
15 utilized the earlier calculations.

16 JUDGE GIBSON: Now NRC staff, is there --
17 is this something that Petitioners had access to, the
18 February 23, 2009 letter and the attachments? Did
19 they have access to this or not?

20 MS. KIRKWOOD: Your Honor, we're going to
21 confirm that, but my current understanding and we'd
22 also, given the same request that the Applicant does
23 which means before we file we confirmed that that was
24 publicly available.

25 JUDGE GIBSON: Sounds like it may be

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1 publicly available, but it also sounds like if you go
2 through one approach to finding it, you don't find it.
3 Okay?

4 MS. KIRKWOOD: That's probably true.

5 JUDGE GIBSON: Okay.

6 MS. KIRKWOOD: That's probably true. I
7 would state sort of two things on that point. One
8 which is in some ways the less important thing is that
9 Petitioners have an iron-clad obligation to examine
10 what's publicly available even if it's not the easiest
11 way to access the information. But two, and really
12 much more significantly, I don't think it matters to
13 the admissibility to this contention because this
14 contention is premised on the idea that the reactor
15 will be in a continuous state of flooding due to this
16 48 feet and I think that's just a simple
17 misunderstanding of the application, whether you use
18 the old numbers or the new numbers. So there's
19 nothing here.

20 JUDGE GIBSON: Okay.

21 MR. EYE: Your Honor, I think it's
22 important, however, to note that -- I think that the
23 staff raises a legitimate point. These applications
24 are, as you know, thousands of pages long. Just to
25 begin with, not to mention the RAIs that flow in and

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1 out that yield exhibits or documents like this.

2 And it seems to me that there shouldn't be
3 essentially two tiers of information out there, that
4 which is on the website that you would look to to see
5 a response to an RAI and then another tier that would
6 not necessarily be something that a reasonable person
7 would look to if the response wasn't where it should
8 be in the first place.

9 And if there's a systemic problem with how
10 this information is organized that puts people on the
11 outside, like the Petitioners, at a disadvantage or
12 prejudices us, I think that's a problem in terms of
13 how this is done. Everybody knows about this except
14 the Petitioners. And that's -- and to the extent that
15 we got this contention wrong because of that, then
16 it's perhaps a function of that failure to organize
17 the information or get it posted in a way that's
18 accessible and meaningful to those who have to try to
19 discern the information that's available and access it
20 appropriately. So that's my observation about that.

21 JUDGE GIBSON: Well, I think -- I just
22 want to make sure though we're talking about two
23 different things here. One of them has to do with
24 whether or not the numbers that are in this revised
25 information in response to the RAI were addressed in

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1 your contention which, you know, I'm not sure they can
2 be excused or not, you using the older numbers. But
3 setting that aside for a moment, I think what counsel
4 for the NRC staff has just raised is that your
5 contention assumes something that's not going to be
6 the case and that is that there would be a constant --
7 this would be in a constant flood state and so the
8 area would be continuously flooded.

9 I think what we heard is that the entire
10 assumption was that you would have some sort of a
11 breach, some of the material would then come out of
12 the reservoir. It would then, if it were headed
13 toward the units which it would be, and they assumed
14 the most conservative thing that they could, the most
15 aggravated conditions, that it would then go toward
16 those units. It would be dissipated on the way and it
17 would take so much water that they basically couldn't
18 be under flood and that in order to reach your
19 conclusion to get to your conclusion, you have to
20 assume a state of constant flood which is not the
21 case.

22 So I mean to me there's really two
23 separate issues here. Even if your failure to find
24 this information could be excused, I think the other
25 question is is your assumption incorrect and I think

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1 that's what the staff is raising.

2 MR. EYE: As I said at the outside when we
3 started to discuss this contention, this was a
4 confusing contention for us to deal with because of
5 that.

6 JUDGE GIBSON: Yes.

7 MR. EYE: Well, it was made more confusing
8 by the fact that we didn't have access to all the
9 information that might have had a bearing on it.

10 JUDGE GIBSON: Yes.

11 MR. EYE: I just want to make sure that
12 it's clear that we didn't set out to begin with to
13 make this something that caused confusion. It wasn't
14 our intent to do that.

15 JUDGE GIBSON: I'm sure you didn't and I'm
16 sure no one here would think that you tried to cause
17 confusion.

18 Do you have anything else you need to say
19 about this before we move on to the next client?

20 MR. MATTHEWS: Yes, Your Honor.

21 JUDGE GIBSON: Please.

22 MR. MATTHEWS: If I may, with all due
23 respect, I've only been practicing before this Agency
24 for 19 years, but that's long enough to be before
25 there was an internet and it has always been the rule

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1 before this Agency that the docket is where documents
2 are. They're made available in a public document room
3 in a physical place. Today, they're more conveniently
4 made available publicly on the internet by the NRC.
5 The docket is where you go to find documents of record
6 and that's what all members of the public need to look
7 for.

8 The fact that the NRC may have designs and
9 features to its website to make it easy to access some
10 of the documents more quickly; is really irrelevant to
11 the fact that the docket is where you go to see
12 documents of record in a COL proceeding or any
13 operating license proceeding. That's always been the
14 case before this Agency and it continues to be today.
15 But I think we've also seen that there really isn't a
16 material issue in dispute here. The Petitioners have
17 not come forward with an issue regarding the design
18 basis flood that could be set for hearing.

19 JUDGE GIBSON: I think we've probably
20 heard enough about that. Why don't we take a 10-
21 minute recess and we will come back on the record.

22 (Off the record.)

23 JUDGE GIBSON: Back on the record.

24 I believe we are going to turn now to
25 Contention #11.

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1 Counsel for the applicant, in your answer
2 at page 48, you suggest that petitioners have failed
3 to controvert the data in those sections of the
4 environmental report that address historical water
5 usage and availability in the Matagorda County area.

6 It struck me that the whole point about
7 climate change and global warming is that historical
8 water usage and availability is of little consequence
9 because we are talking about conditions in the future
10 that render historical water usage and availability of
11 no use.

12 What is your response to that?

13 MR. BURDICK: Your Honor, in this
14 contention #11 the petitioners make unsupported claims
15 that essentially just make the statements that STP
16 Unit #3 use a lot of water; that global warming is
17 going to cause more droughts; and so there won't be
18 enough water.

19 So we identify those sections, because
20 those sections do talk about droughts at the STP site,
21 and they talk about them over a wide range of times,
22 so there is general discussion on droughts.

23 And then we provide water availability
24 information from 1948 through 2006. And I understand
25 Your Honor's point that the global warming contention

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1 is a forward looking thing. But I think here as well
2 it's not that in 2009 global warming then started.
3 But if it really has had impacts on this site, and
4 petitioners have provided no support otherwise, the
5 historical trend and historical information will
6 provide information on this.

7 And Your Honor asked the question here,
8 June 8 order, or the Board did, regarding whether it's
9 possible to discuss how global warming's effect on
10 rainfall should be meaningfully evaluated. And our
11 position is it can't really be meaningfully evaluated,
12 but it's speculation at this point, and I believe this
13 is consistent with the petition which has identified
14 no facts, no expert opinion, no support whatsoever to
15 show that global warming is going to have an impact on
16 this site and the water availability at STP Units #3
17 and #4.

18 And so that is our position there.

19 Also the regulations and guidance require
20 a look at the historical information. And foremost,
21 the environmental review plan requires the staff in
22 their evaluation to look at the historical
23 information.

24 And so we provide that in our application
25 and analyze that. For example section 5.2.1 of the

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1 environmental standard review plan states that the NRC -
2 staff must establish the physical availability of the
3 proposed water sources including consideration of the
4 drought of record.

5 We believe that is the proper approach,
6 and that's what we've taken in our application.

7 Even beyond that, though, this contention
8 fails for other reasons. As I've just noted, they
9 provide absolutely no factual support that would show
10 that there would be an impact from global warming on
11 the site. And that is contrary to Section
12 2.309(f)(1)(5), which requires the petitioners to
13 provide references to the specific sources and
14 documents on which the petitioner intends to rely.

15 And then as Your Honor noted, also, we
16 provide a lot of information in the application on
17 drought and water availability which they don't
18 discuss or challenge at all.

19 And finally I would note here that similar
20 contentions have been analyzed by other licensing
21 boards, and they have made similar claims that global
22 warming is going to - in the Williams States Lee
23 combined license proceeding they addressed the warming
24 of the river temperature, and then also in the
25 Bellefonte proceeding there was a contention that

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1 global warming would increase the frequency and
2 severity of severe weather events. And in both those
3 cases, with similar arguments, the Board rejected them
4 for two reasons: one they were unsupported, and also,
5 they did not challenge any information in the
6 application.

7 And we believe this contention here,
8 contention #11, should be rejected for those exact
9 same reasons.

10 JUDGE GIBSON: Okay. I want to go back
11 to something that you I think started to say, and see
12 if we can tease that out a little bit. You indicated
13 that you were providing the information that the
14 regulations require you to provide, and that this
15 historical water usage and availability is one of the
16 things that you need to provide, and you did so.

17 MR. BURDICK: That's correct.

18 JUDGE GIBSON: Is there a sister
19 provision in the application process that would be
20 forward looking that would address the possibility of
21 climate change and global warming in your application,
22 rather than historical -- I understand you said you
23 can look at the historical to understand the future;
24 I appreciate that question. I'm just asking
25 specifically with respect to, is there some counter

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1 provision for anticipating what future conditions were
2 assuming that climate change and global warming were
3 to occur?

4 MR. BURDICK: The application does not
5 specifically call out global warming and try to
6 speculate as to what the water availability will be.
7 It does use a historical information to see if water
8 based on the worst case droughts in the past, whether
9 based on those conservative estimates, whether water
10 would be available in the future, and so I think
11 that's the most reliable information we have. I think
12 in the board's question indicates that there are
13 contradictory theories on global warming, and here we
14 haven't seen the petitioners put forth any support
15 whatsoever to show there will be impacts at the site
16 here, and I think that is their burden.

17 And they have had that opportunity in the
18 petition. And even in the reply they don't provide
19 that information.

20 IN the reply to contention #8 they do
21 reference two documents, one of which the Board
22 identified already, the Science article. But that
23 also does not address water availability here at the
24 site for STP Units #3 and #4. It deals with the
25 southwest United States.

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1 Additionally, they reference another
2 article about nuclear plants shutting down due to
3 water availability.

4 But there are nuclear plants in the
5 Southeast, and they don't identify plants in Texas for
6 looking at plants in I think Tennessee and Georgia.

7 So again, they have not provided any
8 facts, or any support whatsoever, to support their
9 contention here.

10 JUDGE GIBSON: Okay.

11 The standpoint of the NRC staff?

12 MS. BIELECKI: Yes, Jessica Bielecki for
13 the staff.

14 I think while we agree with the applicant
15 that the contention is not admissible because they
16 don't provide support and they have failed to
17 demonstrate a genuine dispute, we want to make clear
18 that there are two issues when you look at global
19 warming. There is both a safety side and an
20 environmental side.

21 And I think the Board's question speaks
22 more to a safety side. And the safety side of
23 operations, you look at whether or not there will be
24 sufficient water for the plant to operate, and I think
25 that is your question with regard to precipitation.

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1 -Alternatively on the environmental side
2 you consider what impacts the plant may have on the
3 environment. So in terms of safety, while there
4 aren't any specific regulations that say, that dictate
5 that global warming must be considered, we do have
6 GDC-2, which is the general design criteria. It's in
7 appendix A, part 50, and that states that the design
8 bases for system, structures and components -- I'm
9 paraphrasing -- important to safety must reflect
10 appropriate consideration of the most severe of the
11 natural phenomena that have been historically reported
12 for the site and surrounding area with sufficient
13 margin for the limited accuracy, quantity and period
14 of time in which the historical data has been
15 accumulated.

16 And this -- sorry, doesn't that consider
17 extensive historical data, for example. Section
18 2.3(s)S1.3.4 discusses precipitation extremes. 2.4
19 S.2 discusses flood conditions. 2.4S.11 discusses low
20 water conditions. And the FSAR as well as response to
21 our RAI states that if sufficient water is not
22 available, then the plant will cease operations.

23 Now on the other side, the environmental
24 side, the impact of the plant on the environment on
25 the applicant is required in accordance -- in

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1 accordance with 51.45 to discuss the surrounding
2 environment, and they have done that in Chapter 2.

3 And what the staff will do is they will
4 take the information that has been provided in the ER
5 and will do its analysis. And the staff's analysis
6 will consider global warming.

7 And what we will look at is the data
8 available. You mentioned reports that have
9 contradicting data. We'll consider the reports and
10 determine whether or not there is significant impact
11 on this area.

12 In addition we'll consider Table S-3 which
13 we've discussed earlier, which does not specifically
14 consider CO2, but the staff believes that CO2
15 emissions can be calculated from that table and the
16 underlying information to determine if there is a
17 significant impact.

18 So overall global warming will be
19 considered on the environmental side. On the safety
20 side what we look at is the extreme conditions to
21 determine whether or not the plant will be able to
22 safely operate.

23 JUDGE GIBSON: Okay. Now it sounds to me
24 like what your seeking from applicant is to provide
25 you with this historical water availability data, and

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1 - then to assume a margin of safety which would be, I
2 don't know, a standard deviation or two from that
3 point, which would be probably tantamount to this sort
4 of global warming nightmare scenarios that we have
5 been talking about.

6 MS. BIELECKI: On the safety side our
7 analysis involves what we call things such as a PMP,
8 PMS, the Probable Maximum Flood and Precipitation
9 Events. What we do is, we take the historical data
10 and we determine the maximum event and then add
11 another conservative number on top of that, so we
12 consider that analysis to be bounded. And we note
13 that any impacts of global warming, we don't consider
14 them to be overnight impact, so if they are going to
15 happen there is some time for operations to adjust
16 accordingly. And there is nothing as the applicant
17 stated, the staff guidance does not specifically say
18 that they'd provide us information regarding global
19 warming. What they do is provide an analysis of the
20 environment, and then in the FSAR the historical data.

21 JUDGE GIBSON: So essentially the
22 applicant is not doing the global warming analysis but
23 the NRC is? They are providing you with historical
24 data, from which you will then calculate through
25 margins of safety what the possibility might be for

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1 nightmare scenarios like we might have with global
2 warming?

3 MS. BIELECKI: Well, on the safety side
4 we do the extreme events. They are considered
5 bounding. No nowhere will you find that we it will
6 say we specifically consider global warming in those
7 events. But we do consider them to be conservative.

8 It's on the environmental side where you
9 will actually see in the EIS mention of global warming
10 or climate change. And that is the impact of the
11 plant may have on the environment, whereas on the
12 safety side you are considering the impact the
13 environment may have on operations.

14 JUDGE GIBSON: So you don't use the term,
15 global warming, in your safety analysis?

16 MS. BIELECKI: Not -

17 JUDGE GIBSON: What my question is is the
18 practical effect to be considering the sorts of
19 nightmare scenarios that we talk about with climate
20 change.

21 MS. BIELECKI: The staff believes that
22 that analysis is conservative, so it would be
23 bounding, yes.

24 JUDGE GIBSON: Okay.

25 Counsel for petitioners, I don't believe

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1 that was made clear at all in the answer that I read.
2 That was very informative, thank you.

3 Do you have a response?

4 MR. EYE: A bit, Your Honor, thank you.

5 I think that the question that the panel
6 posed in its order that preceded this hearing, these
7 arguments rather, really does raise some very
8 important points.

9 We are dealing with a degree of
10 uncertainty here that frankly does raise everything
11 from nightmare scenarios to -- to use Your Honor's
12 characterization -- to perhaps no effect whatsoever.

13 But what we do know, and what I would ask
14 that the panel essentially take administrative notice
15 of, are a number of decisions based upon comprehensive
16 analyses of the data that do bear on climate change.
17 And it's yielded a couple of very important milestone
18 events.

19 One was the intergovernmental panel on
20 climate change, the U.N. sponsored body. The
21 consensus was, and there has been an updated version
22 of that report that I would again ask that there be
23 administrative notice taken, that certainly quantifies
24 that the effects of global warming will be at least as
25 severe as were postulated in the first IPC report, and

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1 probably more severe, including protracted droughts
2 and storm episodes and events which are more severe
3 than that which historically has happened.

4 So I think that the point that historical
5 data are less reliable in this context is an important
6 one.

7 The other event that I think is at least
8 as noteworthy is judicial: Massachusetts against EPA
9 in April of 2008 -- seven, 2007, right. How quickly
10 time goes.

11 When the United States Supreme Court, in
12 deciding that CO2 is a pollutant and ordering the EPA
13 to make an endangerment finding, or render a decision
14 on an endangerment petition, noted that global
15 warming, that there is a consensus that global warming
16 is happening, and that there is concomitant climate
17 change that accompanies global warming.

18 We cited the Science article that was in
19 contention #8. I think that is something that the
20 panel can take administrative notice of, particularly
21 since it's in the same proceeding.

22 This all gets back to how does one
23 meaningfully roll this into the context that we are
24 dealing with here. And it -- the petitioners take the
25 position that taking a chance that there will not be

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1 significant climatic changes that would affect the
2 availability of water is just that, a chance. The
3 historical data upon which the applicant and to a
4 certain extent the staff rely are called into serious
5 question because of the rapid change that the climate
6 -- or the rapid changes that the climate is
7 undergoing.

8 So how does one meaningfully consider that
9 in your role here, in the Commission's role generally?

10 It seems that if one is to be
11 conservative, it is to take account of likelihood that
12 the protracted droughts are on the horizon. We're in
13 a protracted drought now where we sit. Governor Perry
14 declared the entire state of Texas a drought area
15 earlier this year. Droughts in this part of the world
16 are not unusual.

17 Having grown up in western Kansas, drought
18 is something you learn to expect and live with. It's
19 just that now they are longer, more severe; and the
20 conditions and consequences likewise are more severe.

21 So wouldn't it make sense, then, to do an
22 analysis that takes into account severely diminished
23 quantities of water that would be available for plant
24 operations, instead of making the assumption that
25 there will always be adequate supplies of fresh water

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1 to cool these units at 42,000 gallons per minute per
2 unit.

3 That it seems to the petitioners at any
4 rate would require that there be some analysis of what
5 happens in the event there are the kind of protracted
6 droughts that are not remote possibilities. It was
7 noted, and there was an objection that essentially was
8 lodged in citing the Southeast drought of last year
9 that had implications for a nuclear plant operations.
10 That's not a remote event. It's within the last 12
11 months.

12 Those ought to be considered in the
13 context of a COLA, instead of the assumption in the
14 COLA that there will always be this 42,000 gallons per
15 minute per unit available.

16 It's a common sense contention that takes
17 into account what we now know about global warming and
18 climate change, and it's not asking for something that
19 is out of the question in terms of its feasibility.
20 It's simply saying, project in the future, assume that
21 you don't have access to the 42,000 gallons per minute
22 per unit you need. Roll that into your assumptions.
23 What does that do about plant safety and operations?
24 What does it have to say about impact on the
25 environment if 42,000 gallons per minute times four

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1 diminishes the Colorado River, it could diminish it
2 down to just a trickle, and that's not even
3 necessarily in a protracted drought conditions.
4 Certainly in protracted drought conditions it could
5 diminish it down to a trickle.

6 Is that the kind of impact that ought to
7 be accounted for in a COLA? It would seem logical to
8 follow that.

9 JUDGE GIBSON: I believe the staff
10 indicated that if there was inadequate water the
11 plant would simply be unable to operate. I believe
12 that's what they said.

13 MR. EYE: Right. The force of logic,
14 that's what would happen. But on the other hand, now
15 you have these four units sitting there unavailable
16 for service. And there is the downstream impact of
17 having tremendously diminished water flows past the
18 plant if it's taking a disproportionate share of the
19 flow. Those downstream impacts, again, ought to be
20 accounted for.

21 JUDGE GIBSON: On pages 37 and 38 you
22 have a reference to the Commanche Peak environmental
23 report. Did you mean to say the South Texas
24 Environmental Report?

25 MR. EYE: Your Honor, I don't see exactly

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1
2 JUDGE GIBSON: Section 4.1 --

3 MR. EYE: I'm sorry, you're right. Yes.

4 JUDGE GIBSON: Okay, thank you.

5 On counsel for the applicant, on pages 50
6 and 51, the -- you have suggested that petitioners are
7 misguided in their discussion about chemicals in the
8 effluent that may be discharged to surface water such
9 as algaecides.

10 Now are these -- those are subjects that
11 would be controlled by the Texas Commission on
12 Environmental Quality water discharge permit, correct?

13 MR. BURDICK: That's correct, Your Honor.

14 JUDGE GIBSON: And is this sort of
15 another one of those reverse negligence per se
16 arguments that if you are complying with the rules
17 then essentially their contention can be material,
18 because essentially they are saying you are complying
19 with the rules?

20 MR. BURDICK: Your Honor, I think it's
21 much more than that here. We focus on the
22 requirements in 10 CFR Section 2.309(f)(1) five and
23 six. (F)(5) requires them to provide some support
24 for this, for their arguments here. And they simply
25 make a one or two sentence argument, absolutely no

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1 support that there would be any environmental impact
2 from any of those discharges. Part of that would be,
3 we do operate under the auspices of that permit.

4 But also there is information in the
5 environmental report on the topics they raise. For
6 example, Environmental Report Section 3.3.2 discusses
7 water treatment. 3.6.1 is effluents containing
8 chemical or biocides. Then 5.2.3 chemical impacts,
9 and 5.5.1.1 impacts of discharges to water.

10 The environmental report evaluates impacts
11 of discharging these chemicals and all that
12 information has simply been ignored.

13 Therefore they've shown no genuine dispute
14 with the application.

15 Your Honor, if I can I'd like to respond
16 to some of the petitioner's earlier arguments if now
17 would be a good time.

18 JUDGE GIBSON: If you can do so briefly,
19 please.

20 MR. BURDICK: I'll try to be very quick.
21 But again stepping back and looking at this global
22 warming contention from the contention of
23 admissibility standards, they provided absolutely no
24 support in their petition. And the burden is on them
25 to do so. References of report and the reply, which

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1 we disputed, but they shouldn't have even provided it
2 there, because they didn't provide it in their
3 original petition.

4 And then here today they make additional
5 arguments about a U.N. report and a Massachusetts v.
6 EPA case that are additional new arguments that is
7 impermissible at this point to raise.

8 And they claim that we are just making an
9 assumption that there is going to be water available.
10 That is simply not the case. Environmental report
11 analyzes that and makes conservative assumptions,
12 looks at the firm water supply and demand, looks at
13 the historical drought of record, and does all this
14 concludes that there will be water available, and the
15 impact would be small.

16 And that's all, thank you, Your Honor.

17 JUDGE GIBSON: With respect to the
18 chemicals, recognizing that you are complying with
19 those restrictions now, would that change any under
20 drought conditions? And is that addressed in the
21 environmental report? It touches algaecides. Any
22 other chemicals that might be involved in plant
23 operation would not be radioactive substances though.

24 (Counsel confer)

25 MR. BURDICK: Your Honor, there are

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1 -discharge-limits from the main effluent reservoir, and
2 it's based on the flow of the Colorado River, so I
3 don't think it wouldn't necessarily be impacted by
4 drought. It just wouldn't discharge under those
5 conditions, if I'm understanding your question
6 correctly.

7 JUDGE GIBSON: Okay.

8 Counsel for petitioners, I was somewhat
9 mystified about your claim about the impact of the
10 plant's discharges on freshwater flows in the Gulf of
11 Mexico, and you know, having done a little trial work
12 before I took this position, it's a little hard for me
13 to envision how you could make an offer of proof on
14 how the plant's -- how you would impact the Gulf of
15 Mexico with discharges from this facility.

16 How would you construct a viable legal
17 theory to prove that in an evidentiary hearing?

18 MR. EYE: By essentially doing a couple
19 of things. One, establishing the hydrological context
20 in which this plant operates. It's relatively close
21 to the coast. There are estuaries between the plant
22 and the coast itself. Estuaries have -- are
23 considered to be fragile environmental contexts. And
24 when you -- when there is a diminished flow of
25 freshwater there is an alteration of the water's

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1 chemistry with ripple effects on flora and fauna, for
2 example.

3 So that in terms of laying a foundation
4 would be the point of departure. And I think that
5 coupled with clearly enormous water needs of these
6 plants by any meaningful standards, greater than any
7 other kind of generating units, there is certainly the
8 likelihood that there will be a greatly diminished
9 flow of freshwater from the plant into the Gulf.

10 And it's the area between the plant and
11 the Gulf that we're the most concerned about, because
12 it tends to be the most environmentally sensitive.
13 And so that's essentially -- and what's we've tried to
14 say here, the lagoons, estuaries, wetlands, and so
15 forth, is what we're the most concerned about, and we
16 take into account diminished freshwater supplies as
17 they are both siphoned off to cool these units.

18 My recollection is that when the Federal
19 Water Pollution Control Act Amendments of 1972 were
20 passed part of the consideration that went into them
21 was that the government had scarcely ever been able to
22 establish -- to make the offer to prove necessary to
23 show impact on receiving watercourse. So they went
24 back and set these individual limits on t these
25 individual facilities precisely for the reason that

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1 the government could never prove the impact on the
2 receiving stream.

3 Now I appreciate what you just said, but
4 if you think about it, the Gulf of Mexico is a pretty
5 significant water body, even in the freshwater areas
6 around it, it's a pretty significant water body. And
7 we are talking about one discharge that is I don't
8 know how far away from the point that we have
9 freshwater, salt water meeting there. But it's a
10 ways.

11 And I suspect there is probably some other
12 discharges between here and there, probably some even
13 above this. I'm just trying to figure out how one
14 would prove that, in your position.

15 JUDGE GIBSON: Well, to start with your
16 premise that in 1972 the government was having a hard
17 time establishing that there were impacts from
18 discharges was when the Cuyahoga River was on fire.
19 And they still wouldn't accept that there were impacts
20 from discharges.

21 MR. EYE: Because how could you prove
22 whose effluent it was that caused it to catch on fire?

23 JUDGE GIBSON: Right. It wasn't a
24 function of whether there was effluents causing the
25 fire; it was just that they couldn't identify the

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1 specific discharger that was causing it. —

2 MR. EYE: Right. So that was really two
3 different problems there. Here we are talking about
4 a matter of a few miles from the plant to the Gulf
5 Coast, and in between, again, And in between again is
6 the area we are most concerned about.

7 There is not much of a geographic space;
8 if I remember right it's less than 10 miles. That is
9 a fairly small geographic area that is going to be --
10 have a disproportionate amount of impact.

11 And there seems to be little consideration
12 about whether that is important here. There is no
13 doubt that there will be an impact; the COLA seems to
14 think that it's an acceptable impact. We take issue
15 with that, because of the relatively sensitive areas
16 that it will be affecting.

17 So I think that our problem here is
18 perhaps that there is not enough appreciation for what
19 really it means to be diminishing the flow from the
20 plant to the Gulf, and it's impacts on the
21 environmental area in between, the ecology in between
22 those two points.

23 And it's the petitioner's position that
24 that ought to be better analyzed so that decision
25 makers can know what the downstream effects and

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1 impacts are likely to be.

2 And this is really aggravated to a certain
3 extent I suppose, it is aggravated, by the uncertainty
4 related to climate change. Because again, if one
5 takes the approach that there is no need to take
6 climate change into effect, well, then there is
7 probably no need to take into effect the impact on the
8 downstream environment from the plant to the coast.

9 But we think that there is definitely a
10 need to take into account the impact of global
11 warming; and if one does that, and you figure that
12 there would be an even greater impact because of
13 diminished rainfall for example, then the impact will
14 be even greater than if the rainfall was consistent,
15 and you were only dealing with a significantly
16 diminished flow on the lower Colorado from the plant
17 to the coast.

18 JUDGE GIBSON: With respect to global
19 warming, you mentioned on pages 39 and 40 of your
20 petition that you view units #3 and #4 as global
21 warming agents in terms of heat, including water vapor
22 from steam and heat radiating from the cooling towers
23 and pond.

24 Is this a -- relative to any other power
25 plant, whether it's coal or fuel or oil or natural gas

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1 -- it would seem to me that not most people would
2 think that nuclear plants probably are less of a
3 contributor to global warming by virtue of the fact
4 that they don't emit carbon, and I'm wondering is
5 there a significant amount of heat generated by these
6 plants relative to what you would see from other
7 plants? I didn't notice any citation to any authority
8 in your brief on this point.

9 MR. EYE: Most of the -- this is really
10 based again on a commonsense approach. The big
11 challenge, or one of the big challenges operating
12 nuclear plants is what to do with excess heat, because
13 there is a tremendous amount generated.

14 And to the extent that it is discharged
15 into the atmosphere, it is a constituent therefore of
16 global warming. There is not a side-by-side analysis
17 to compare it on a kilowatt hour basis or megawatt
18 basis with other units.

19 We want to point out that there is an
20 impact; that it does discharge excess heat into the
21 atmosphere. To the extent that excess heat is
22 discharged into the atmosphere, it's a contributor to
23 global warming.

24 And that particular point is not covered
25 in the COLA, and we contend that it should be.

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1 JUDGE GIBSON: Just briefly on that
2 point, so we can get on to the next contention, do you
3 have any response to the specific question of the heat
4 that might be associated with units #3 and #4 relative
5 to some other type of plant.

6 MR. BURDICK: Your Honor, here the
7 petitioner's again provided no support. We discussed
8 the heat generated by the units in the application,
9 and we even conclude in environmental report Section
10 10.4.1.3 that one of the benefits of this project is
11 its net benefit to global warming. And I think that's
12 what the Board should account for here.

13 And just one quick point regarding the
14 impacts between the site and the Gulf. The
15 petitioners have again ignored our application,
16 Section 5.2.3 discusses these issues. They claim that
17 we need to better analyze them, but they don't discuss
18 what the problem with our analysis is, and they don't
19 identify that analysis or again provide any support
20 for their argument.

21 JUDGE GIBSON: Okay. Do y'all have
22 anything about --

23 JUDGE CHARBENEAU: One quick question.
24 It kind of mirrors what the question of uncertainty in
25 the use of quantities of water. The contention asks

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1 for a sensitivity analysis based on temperature. And
2 it makes the statement, it looks like it's on page 38,
3 that a temperature sensitive analysis is necessary
4 since plant operations are dependent on a narrow band
5 of temperatures for plant operations.

6 Are these environmental temperatures,
7 operational temperatures within the plant? I'm not
8 sure what temperatures are being referred to here?

9 MR. EYE: Well it's temperatures that
10 would be anticipated that would be used for
11 circulation within the plant. It's the surface water
12 temperature that would be present when it was used for
13 purposes of circulating through the plant.

14 JUDGE CHARBENEAU: There is a pretty wide
15 range in environmental temperatures as we go through
16 they early cycle. Is this something that goes beyond
17 the annual cycle of temperatures? I'm having a hard
18 time getting a --

19 MR. EYE: To the extent that global
20 warming raises ambient temperatures, we would expect
21 that a parallel impact on the temperatures of water.
22 And water bodies. And so that's the point of that
23 particular section of the contention.

24 It is, is there a reasonable basis to
25 conclude that the ambient temperatures will increase

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1 based upon global warming? And if so what will be the
2 effect on water temperatures, and will that have an
3 effect on the capacity of the plant to use those water
4 bodies for purposes of plant cooling.

5 JUDGE CHARBENEAU: There is no suggestion
6 that the temperature changes associated with global
7 warming would be any thing compared to the magnitude
8 of the annual cycle of temperature changes that those
9 water bodies experience.

10 MR. EYE: Well, to the extent that global
11 warming would raise average temperatures of the
12 ambient, then there would be a parallel increase in
13 the temperatures of water as well, throughout the
14 yearly cycle of seasonal change.

15 If the ambient temperature is increased on
16 an annual basis, then water will change its
17 temperature as well, or so the argument would go.

18 JUDGE GIBSON: I think there was also one
19 issue in contention #11 that had to do with post
20 license ownership and responsibility of the main
21 cooling reservoir, but I think we've really already
22 covered that ground when you talked earlier about the
23 dismantling and decommissioning, I think we've pretty
24 well taken care of that.

25 So let's get on to contention #12.

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1 Counsel for petitioners, I have reviewed the pleadings
2 and the applicant's answer argues that the non-
3 radioactive pollutants, things other than tritium and
4 cobalt and whatnot, are an issue that is the exclusive
5 province of another agency, the Texas Commission of
6 Environmental Quality is the state agency that has
7 been delegated with responsibility for the NPDES
8 program by EPA; and that EPA and the Texas Commission
9 on Environmental Quality have sole authority to
10 control these non-radioactive pollutants, and that we
11 are obligated to defer to their decisions. And so to
12 the extent that that is what you are raising in
13 contention 12, those are matters that are outside the
14 permissible scope of this proceeding.

15 How do you respond to that?

16 MR. EYE: We response, Your Honor, by
17 again asking the question: is this plant, the license
18 for this plant, in the public interest? And how do we
19 measure the public interest here?

20 Not by drawing artificial boundaries
21 around what impacts ought to be considered in the
22 context of COLA and not, but rather taking a global
23 approach if you will to impacts.

24 Not withstanding whether one particular
25 agency has primary jurisdiction or another, the

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1 question that is asked here is, what is the
2 environmental impact of this plant. Not necessarily
3 whether the NRC can control the emissions from a
4 particular discharge point or what those emissions
5 might be; the question is, what is the environmental
6 impact in the broadest sense possible?

7 And I think under NEPA that is a very
8 broad question. And to the extent that NEPA
9 considerations control the -- or at least have an
10 influence over how this Commission views its
11 responsibilities to gauge environmental impacts, then
12 it's not unreasonable to take into consideration
13 nonradiological discharges, and ask, are those
14 discharges over the course of the supposed life of
15 this plant consistent with the public interest or not?

16 And we recognize that there are these
17 jurisdictional lines between who gets to issue the
18 permit and on what grounds. But that doesn't limit
19 the NRC's capacity to ask is this an environmental
20 impact that has been fully considered?

21 JUDGE GIBSON: Under NEPA?

22 MR. EYE: Yes, sir.

23 JUDGE GIBSON: Okay. Would y'all like to
24 address that briefly?

25 MR. FRANTZ: Yes, first of all that is

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1 not what their contention states. Their contention
2 alleges insufficient TPDES permit effluent limits. So
3 they aren't talking about NEPA here; they are talking
4 about the permit. And even if they were talking about
5 NEPA --

6 JUDGE GIBSON: Well, let's just assume it
7 was cryptically written. But let's just cut to the
8 chase, and tell me what you think about NEPA and EPA.

9 MR. FRANTZ: Looking at this solely under
10 NEPA, Environmental Report Section 5.2.3 has an
11 evaluation of the effects of our chemical discharges,
12 and we show that those effects are small. The
13 contention itself and the associated report by Dr.
14 Ross do not contest that discussion in Section 5.2.3,
15 they don't even mention it. As a result this
16 contention is just patently deficient under Section
17 2.309 (f)(1)(6) because it doesn't even contest in a
18 reference the relevant portions of the application.

19 JUDGE GIBSON: But your point is, you
20 have addressed it in your environmental report, okay?
21 That is essentially your -- even if it's not the
22 argument you want to be making here, you have
23 addressed the TPDES limitations in your environmental
24 report; the staff will then take those and review them
25 for purposes of making an environmental analysis. And

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1 to the extent that they ~~are~~ analyses and
2 recommendations, presumably those will be made
3 available to EPA and the Texas Department of -- either
4 Texas Commission on Environmental Quality, and they
5 will in turn be able to consider that in terms of what
6 kind of effluent limitations they might be setting for
7 these parameters, in that permit. Is that a fair
8 statement?

9 MR. FRANTZ: That is correct.

10 Now I might add that we already have a
11 permit for discharges from the reservoir to the
12 Colorado River. We will need additional permits from
13 -- for discharges from the plant to the reservoir, and
14 those are the only additional permits we'll need. The
15 other permits we already have under the existing TPD
16 permit for Unit #1 and #2.

17 JUDGE GIBSON: When you say you are going
18 to need additional permits, you are referring to units
19 #3 and #4.

20 MR. FRANTZ: That's correct.

21 JUDGE GIBSON: You already have permits
22 for units #1 and #2, in terms of what goes into the
23 main cooling reservoir, correct?

24 MR. FRANTZ: That's correct, and also
25 what goes out of the main cooling reservoir.

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1 JUDGE GIBSON: ---Correct. - And these are
2 the -- well, we'll get to that other one later.

3 Okay, so you all will be then taking this
4 information, in their environmental report, and doing
5 what with it? With respect to these parameters that
6 are regulated by the state of Texas in its wastewater
7 district permit.

8 MS. KIRKWOOD: Your Honor, can I have a
9 moment to confer with my client, to be sure my answer
10 is correct?

11 JUDGE GIBSON: Sure.

12 (Counsel confers with client)

13 MS. KIRKWOOD: In the EIS, the staff will
14 evaluate the impacts of whatever discharges are under
15 NEPA. The staff would continue to note that the
16 contention stated that the TPDES permit fails to
17 establish the necessary limits, and to the extent that
18 the contest is with what the limits are, that would be
19 under the province of the Texas Department of
20 Environmental Quality.

21 JUDGE GIBSON: Right, but presumably if
22 you all concluded based on your environmental review
23 under NEPA, that those discharge limitations where
24 inadequate to protect the environment, then you would
25 make a note of that in the environmental report, the

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1 way the environmental- assessment, whether it was a
2 FONSI or an environment impact statement, that you
3 always should correct.

4 MS. KIRKWOOD: If we concluded that there
5 were -- we would assess the impacts.

6 JUDGE GIBSON: Correct. Correct. And
7 then it would be up to the state of Texas and the
8 Environmental Protection Agency what to do about that;
9 right?

10 MS. KIRKWOOD: Right.

11 JUDGE GIBSON: Okay.

12 Now do you have anything else you need to
13 say about that?

14 MR. EYE: Briefly. To the extent --

15 JUDGE GIBSON: Please.

16 MR. EYE: Yes, sir. To the extent that
17 Dr. Ross points out that the state permit does not
18 limit certain parameters of pollutants such as metals,
19 iron or copper, that would expected to be discharged
20 in a -- as plant functions, you've got a situation now
21 where you've got some discharges which are effectively
22 unregulated, and because of that we think that the
23 contention that there is an insufficient analysis of
24 the full spectrum of discharges that are expected is
25 completely consistent with that's expected under NEPA

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1 -- or not expected.-- I think--NEPA-- would expect that
2 those kinds of discharges get analyzed in the context
3 of this application.

4 JUDGE GIBSON: Do you have any questions?

5 JUDGE ARNOLD: Sure, one.

6 The -- let's see -- statement by Dr. Ross
7 says, in particular the permit does not address
8 concentrations of radionuclides like tritium. Does
9 tritium really fall under the jurisdiction of the
10 Texas Commission on Environmental Quality?

11 MR. EYE: I don't believe it does.

12 JUDGE ARNOLD: Okay.

13 MR. EYE: I mean not unless there has
14 been a specific -- well, I think that they have been
15 delegated Clean Water Act primacy. And to the extent
16 that you've got a safe drinking water act issue on
17 tritium, then I think she quantifies it -- yes, 17,000
18 plus picocuries per liter, I think it's the
19 observation that you've got something that is hovering
20 around the 20,000 picocurie limit, and that this is
21 not taken into account by the Texas Department of
22 Environmental Quality.

23 I think that was the point that she is
24 attempting to make there, Your Honor.

25 JUDGE ARNOLD: Let me ask the applicant.

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1 In addition to tritium, ~~it~~ also says, let's see,
2 permit does not limit either the concentrations or
3 massive metals other than iron or copper. Do you know
4 is there a requirement that if you are going to be
5 discharging iron or copper, that that be included on
6 the permit?

7 MR. FRANTZ: The permit does include --
8 the permits from the plant -- this is for unit #1 and
9 #2 into the main cooling reservoir does include iron
10 and copper.

11 JUDGE ARNOLD: Okay, and so we can expect
12 the same of unit #2 -- er, #3 and #4?

13 MR. FRANTZ: I think that's fair to say,
14 yes.

15 JUDGE GIBSON: Just my own curiosity, is
16 the iron in copper in the influent water, and you
17 basically are -- it's going to be coming out your
18 outfall? Or is there something about the plant
19 operation that creates iron or copper discharges?

20 MR. FRANTZ: I believe that there may be
21 some minor amounts of erosion for example going
22 through the piping system.

23 JUDGE GIBSON: Okay.

24 MR. FRANTZ: We are also informed that
25 there is metal cleaning waste which also discharges

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1 into the reservoir.

2 JUDGE GIBSON: Thank you.

3 MR. EYE: And Your Honor, I think the
4 record should be clear that Dr. Ross does acknowledge
5 that there is a permit limit on iron and copper. It's
6 the other, for example, the metal cleaning waste, that
7 is apparently unregulated.

8 JUDGE GIBSON: Well, I think the iron and
9 copper limits are a function of the metal cleaning
10 waste, are basically a reflection of the metal
11 cleaning operation that they have, and that that in
12 turn causes some small amount of metal discharge. I
13 thought it was in the influent water, but apparently
14 it's not. It's in the metal cleaning.

15 MR. EYE: Yes, or corrosion products.

16 JUDGE GIBSON: But it does -- it appears
17 to be an issue that is addressed by the state of Texas
18 in its permit.

19 MR. EYE: Well, Dr. Ross contends that it
20 doesn't limit those in the permit.

21 JUDGE GIBSON: Doesn't limit iron and
22 copper?

23 MR. EYE: It doesn't limit the -- other
24 than iron and copper.

25 JUDGE GIBSON: Okay, well, let's just

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1 make sure. Iron and copper are in the permit. From
2 the state of Texas, because of things like metal
3 cleaning that are done. It creates a waste, a
4 metallic waste, that's in the wastewater. They have
5 to monitor for that, and so they said iron and copper
6 as parameters to measure for that waste.

7 I think that is what they are saying.

8 MR. EYE: I didn't understand it that
9 way, but --

10 JUDGE GIBSON: I think that is what they
11 are saying. And it seems plausible to me. I don't
12 know what it sounds like to you.

13 MR. EYE: Well, I'm -- all I'm suggesting
14 is that --

15 JUDGE GIBSON: If you went and looked at
16 the Texas Commission on Environmental Committee, you
17 looked at their permit, they would have a statement
18 that would explain the basis for each of the
19 parameters in that wastewater discharge permit, and
20 you would know that there were certain -- what the
21 waste source was for each of those parameters, and I
22 bet you it would include metal cleaning wastes as one
23 of them.

24 MR. EYE: Well, Dr. Ross contends that
25 there are certain parameters that are not addressed in

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1 that. And to the extent that they are not addressed
2 with by the NRC, you've got discharges that are not
3 addressed by anybody.

4 JUDGE GIBSON: And I believe that was
5 Judge Arnold's point, and that was, okay, we have
6 tritium, she says that is not addressed, but in fact
7 that's an NRC-regulated parameter. Are there
8 parameters that your expert is concerned with that are
9 not regulated by either the Texas Commission on
10 Environmental Quality wastewater discharge permit or
11 by the Nuclear Regulatory Commission?

12 MR. EYE: Well, what Dr. Ross contends is
13 that yes, there are for example iron and copper that
14 you would expect as a function of the metal cleaning
15 waste, and perhaps corrosion products. But there are
16 other metals as well that would be expected that are
17 not addressed.

18 JUDGE ARNOLD: Did she say what those
19 are?

20 MR. EYE: I don't know. It would be
21 metals that would be expected in the cleaning process.
22 Precisely what those are, they are not called out.

23 JUDGE GIBSON: Okay. Well, we're
24 probably getting far afield from the reason why we're
25 here, but since we've already gotten this far we might

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1 as well go down-into-the weeds.-----

2 What is the -- are there other -- are
3 there any other metals that are discharged that are
4 not included in copper or iron -- I might say also
5 that they might, those might be surrogates for other
6 things that might be there in trace amounts but I
7 don't know.

8 MR. FRANTZ: Yes, precisely. There very
9 well could be trace amounts of other metals in
10 discharges, and there is also of course trace amounts
11 in the intake system from our main cooling reservoir
12 into the plant, and they are discharged back into the
13 reservoir again.

14 So yes, and I think the fact of the matter
15 is that the permit does not limit those because they
16 are trace amounts; they are not significant.

17 JUDGE GIBSON: Okay. I'll just tell you,
18 I know a lot of times what happens for example, the
19 Mississippi River, when they take wastewater and then
20 they take the Mississippi River water into the plant,
21 it will be cleaner when they discharge it than when
22 they take it in because of the amount of solids that
23 they have to get rid of in order to run it through
24 their plant as cooling water. And you know there may
25 be a similar phenomenon here. There may be some

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1 contaminants that--they take in--that are actually they
2 discharge at a higher level of refinement than you
3 would see, I don't know.

4 But anyway, was there anything else that
5 you all are aware of that is not covered in either
6 your Texas Commission on Environmental Quality permit
7 or the NRC regulated discharge?

8 MR. FRANTZ: No, I think that covers the
9 universe.

10 JUDGE GIBSON: Thank you. That's what we
11 wanted to know.

12 Okay, with respect to Contention #13, it
13 appears that you're challenging matters in the
14 wastewater discharge permit from the Texas Commission
15 of Environmental Quality, and I don't think that's
16 something that can be done. I think to the extent you
17 are challenging whether or not there has been an
18 adequate -- whether they have been adequately
19 addressed in the environmental report for purposes of
20 NEPA, that would be another matter.

21 I want to make sure that I understand what
22 it is you are addressing. Now it appears that part of
23 your concern here has to do with total dissolved
24 solids from the discharge from the main cooling
25 reservoir to the Colorado River. Is that correct?

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1 MR. EYE: Yes, Your Honor.

2 JUDGE GIBSON: Okay. Now, my
3 understanding is that total dissolved solids are
4 generally not evaluated as an indicator of adverse
5 health effects but rather are used as an indication
6 either of the aesthetic characteristics of water or as
7 some kind of aggregate indicator of the presence of a
8 broad array of chemical contaminants.

9 MR. EYE: It is a measure of water
10 quality. I mean total dissolved solids is one means
11 by which water quality is evaluated.

12 JUDGE GIBSON: Okay, now the Texas
13 Commission on Environmental Quality has directed
14 applicant, and I believe this was alluded to
15 previously, to limit the volume of its main cooling
16 reservoir discharge. That would be not to the
17 reservoir, but from the reservoir to the Colorado
18 River, to 12.5 percent of whatever the flow of the
19 Colorado River is at the time of the discharge. Okay?
20 Is that your understanding as well?

21 MR. EYE: Yes, sir.

22 JUDGE GIBSON: Now, that does not sound
23 to me like they are attempting to dilute the total
24 dissolved solids, but rather they are trying to ensure
25 that the total dissolved solids in their effluent do

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1 not exceed the carrying capacity of-- the Colorado
2 River, so that they will make sure that they don't put
3 more in there than the Colorado River can accept.

4 Am I missing something?

5 MR. EYE: Well, only to the extent, Your
6 Honor, that as we understand the environmental report,
7 there is no attempt really to measure the difference
8 in the total dissolved solids. Once these two
9 additional units go into operation. As I read through
10 there, there was I think a qualitative description of
11 it, but I don't remember specifically the quantified,
12 and there's the -- how much will it actually increase
13 over time?

14 JUDGE GIBSON: Right. Well why don't we
15 ask the applicant. What is the impact of units #3 and
16 #4 on total dissolved solids that would be discharged
17 from the reservoir to the Colorado River? Is it a
18 doubling? Is it none at all? Is that mostly a
19 function of biological action in the main cooling
20 reservoir? What is the impact of units #3 and #4?

21 MR. FRANTZ: Let me confer with my
22 client.

23 JUDGE GIBSON: Sure.

24 (Counsel confers with client)

25 MR. FRANTZ: The operation of unit #3 and

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1 #4 will probably increase the level of total dissolved
2 solids. But we still would maintain that the impact
3 is quite small.

4 In addition to the 12.5 percent limit that
5 you referred to, Judge Gibson, we also have a
6 restriction that we can't discharge if the river flow
7 is less than 800 cubic feet per second. So that is an
8 added protection to ensure that we have adequate
9 mixing and dilution in the river itself.

10 And given its dilution we believe that
11 there is basically very small impacts on the river.

12 JUDGE GIBSON: And these are addressed in
13 the environmental report that you submitted; is that
14 correct?

15 MR. FRANTZ: We addressed chemical
16 effects in general in Section 5.2.3. I'm looking
17 through this; I don't see a specific mention of total
18 dissolved solids in that section. But we do discuss
19 a number of other chemical discharges including
20 biocides and algaecides and anti-scaling compounds,
21 conversion inhibitors, and so forth. So we go through
22 the more important ones, I think I would say, are
23 discussed in 5.2.3. And the other ones are not as
24 important as the ones we do discuss.

25 JUDGE GIBSON: Okay.

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1 Judge Arnold?

2 JUDGE ARNOLD: In the environmental
3 report 2.3.1.1.2, the statement exists -- quote, the
4 MCR was originally sized for four nuclear units
5 similar in size to the existing two units.

6 Now can I infer from that that when they
7 originally sized the MCR they considered using it for
8 dilution of effluents?

9 MR. FRANTZ: Absolutely. And not only is
10 the reservoir sized for that, but our water intake
11 permits basically account for four units. We won't
12 have to change our water intake permits. We won't
13 have to change our discharge permits from the
14 reservoir to the Colorado River. That's also able to
15 accommodate four units.

16 So yes, you are absolutely right, we are
17 designed, or had designed, for four units all along.

18 JUDGE ARNOLD: Okay, and the original
19 sizing calculations would show that this NCR is
20 adequate to dilute for four units?

21 MR. FRANTZ: That's correct?

22 JUDGE ARNOLD: Do you know of anything
23 that has changed or any differences that would now
24 make it, make the NCR inadequate for dilution?

25 MR. FRANTZ: I don't know of anything

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1 specific, Your Honor. — But I think that the point is,
2 two more units, is it twice as much total dissolved
3 solids? Is that a logical inference? And actually
4 these units are bigger, so it might be more than
5 twice. And yet that -- I don't think -- is answered.

6 JUDGE GIBSON: Okay.

7 MR. FRANTZ: If I can point out one more
8 thing, the Colorado River right below our usual intake
9 and discharges is saline. It has influents from the
10 tides. So there will be normally a fairly high level
11 of total dissolved solids in that water to begin with,
12 and anything we contribute from the plant is going to
13 be minor compared to the naturally occurring total
14 dissolved solids.

15 MR. EYE: But that's not quantified
16 anywhere, and I don't know that it's quantified in
17 terms of what the pattern of total dissolved solids is
18 as a result of mixing from the Gulf is either, as I
19 recall.

20 JUDGE GIBSON: Let's talk about that for
21 a minute. Is a blow down event from the main cooling
22 tower from the main cooling reservoir a rare event?

23 MR. FRANTZ: From units #1 and #2, yes,
24 I think it occurred once in the last 10 to 15 years if
25 I recall correctly.

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1 I add just to make sure that the record is
2 complete and the board understands, we did expect to
3 have more frequent discharges now with four units
4 operating.

5 JUDGE GIBSON: More frequently than once
6 every 12 years?

7 MR. FRANTZ: Yes.

8 JUDGE GIBSON: And how are you thinking
9 it's going to be once every six years? It's still not
10 going to be something that happens on a regular daily
11 basis or any thing like that.

12 MR. FRANTZ: I think that is correct. I
13 think that we'd do is we'd monitor the chemistry of
14 the main cooling reservoir, and we only discharge if
15 we have to to maintain that chemistry;

16 JUDGE GIBSON: There is one thing that I
17 want to be sure that we get the record clarified
18 about. Judge Arnold asked you a question about
19 whether the reservoir was created to dilute your
20 effluent. How much -- was that designed primarily for
21 heat?

22 MR. FRANTZ: Yes I --

23 JUDGE GIBSON: So it was to dilute the
24 heat? I just want to make sure you are not suggesting
25 that you designed this reservoir in order to dilute

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1 your effluent before it ~~discharges to~~ the Colorado
2 River. Because you have to monitor that before it is
3 discharged from the plant to the main cooling
4 reservoir, correct?

5 MR. FRANTZ: Yes, you are absolutely
6 correct, Judge Gibson. The main purpose of the
7 cooling reservoir by its very name is to cool. It
8 also almost by coincidence does dilute, too. In fact
9 we have a dilution factor of at least 10 and probably
10 much greater than 10 in the main reservoir itself; but
11 there is also of course much further dilution once you
12 get into the river system itself.

13 JUDGE GIBSON: Do you have anything?

14 JUDGE ARNOLD: Just that I note this
15 discussion has been focused on total dissolved solids,
16 but I don't actually see that anywhere in the wording
17 of the contention. You just mentioned dilution of
18 nuclear power plant waste water. Is it basically the
19 total dissolved solids, that's what you are concerned
20 with?

21 MR. EYE: Yes, Y our Honor.

22 JUDGE GIBSON: Okay. With respect to
23 contention #14, we have something.

24 MR. EYE: Your Honor, I was just
25 wondering if we could take a quick break?

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1 MR. EYE: We absolutely can.

2 MR. EYE: Thank you, Your Honor.

3 JUDGE GIBSON: How about if we take --
4 can we make it five instead of 10?

5 MR. EYE: That's all right; thank you.

6 JUDGE GIBSON: Good; be back on the
7 record in five minutes.

8 (Whereupon at 5:08 p.m. the
9 proceeding in the above-entitled matter
10 went off the record to return on the
11 record at 5:14 p.m.)

12 JUDGE GIBSON: We're back on the record.
13 Turning to contention #14.

14 MR. FRANTZ: Judge Gibson, have we
15 covered #13 already?

16 JUDGE GIBSON: Let's see, were there some
17 other things we needed to cover in #13?

18 MR. FRANTZ: I'm not sure there is. We
19 have discussed dilution already. But I just wanted to
20 make sure we weren't inadvertently overlooking
21 contention #13.

22 JUDGE GIBSON: Well, you're making me
23 think we must have done an inadequate job.

24 What sorts of other things were you hoping
25 that would be addressed with respect to contention

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1 #13?

2 MR. FRANTZ: Well, very quickly.

3 JUDGE GIBSON: Please.

4 MR. FRANTZ: I think the intervenors rely
5 upon a statement in Section 10.1 of our environmental
6 report regarding dilution. And they consider that as
7 being dilution from the main cooling reservoir.

8 I think they just simply read our
9 environmental report. If you look at the details of
10 our environmental analysis, which are in Chapter 5,
11 our conclusion that there are going to be small
12 impacts that are not due to dilution by the main
13 cooling reservoir which will in fact occur, but
14 instead the conclusion is based upon dilution by the
15 Colorado River itself.

16 So it's very clear that Dr. Ross has
17 simply misread or perhaps not even read at all in full
18 our application.

19 JUDGE GIBSON: Okay. So the larger point
20 you are making is that the Colorado River is not
21 serving as a source of dilution or pollution from the
22 South Texas units #3 and #4 but in fact to the extent
23 there is any dilution involved it would have to do
24 with the function of the main cooling reservoir before
25 any discharges that might occur to the Colorado River?

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1 MR. FRANTZ: No, I think just absolutely
2 the reverse. If you look at our environmental report
3 our conclusion that there are small environmental
4 impacts on aquatic biota is attributable to the
5 dilution by the river. And they have misread our
6 environmental report. They believe it's due to the
7 dilution by the main cooling reservoir, and that
8 simply is not the basis for our conclusion. They have
9 misstated our application.

10 JUDGE GIBSON: Okay. Fortunately Judge
11 Charbeneau picked up on that. So do you have
12 anything? Do you want to respond to that? Okay,
13 good.

14 Was there anything else where our analysis
15 was inadequate?

16 MR. FRANTZ: No, I think your analysis
17 has been great so far.

18 (Laughter)

19 JUDGE GIBSON: All right, counsel for
20 petitioners with respect to contention #14. I don't
21 know if your mike is going to be -- work out there.
22 There you go.

23 MR. EYE: Thank you, sir.

24 JUDGE GIBSON: No problem. It appears
25 you are asserting that pollutants from applicant's

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1 facility are being discharged without adequate
2 restrictions on the volume and concentration of
3 specific parameters in those discharges.

4 Now I was unable to ascertain where these
5 discharges are occurring and where they are going that
6 you are complaining of. Could you elucidate that for
7 me, please?

8 MR. EYE: I'll try, Your Honor.

9 The MCR's unlined. And because it's
10 unlined the water tends to seep through the sediment
11 layer and then move consistent with whatever the
12 groundwater flow would direct it. And a lot of this
13 then gets I believe it was quantified as 60 some odd
14 percent as I recall, 68 percent of the water that
15 leads out of the bottom of the MCR then is recovered
16 by pressure relief wells and then is in turn
17 discharged as surface water drainage. And it's this
18 process of seepage through the bottom of the MCR,
19 recovery through the pressure relief wells and then a
20 discharge into receiving water bodies including the
21 estuary system and so forth in the area that is
22 immediately adjacent to the South Texas plant that
23 gives rise to this contention. I mean it's the basic
24 premise of the contention.

25 JUDGE GIBSON: And are you maintaining

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1 that the only thing the applicant has to do is monitor
2 for parameters but there is nor restriction on the
3 exact quality of the water in this. It goes into this
4 pressure relief well and then into the Colorado River?

5 MR. EYE: Well, it is regulated. I mean
6 they don't have just carte blanche to discharge into
7 a receiving water body without some limitations on
8 specific parameters of pollutants. So it is not our
9 contention that they can just discharge it without any
10 consideration as to what its contaminant levels might
11 be, once they have recovered it through the pressure
12 relief wells and then discharge it into receiving
13 bodies of water.

14 JUDGE GIBSON: Okay.

15 MR. EYE: Discharges into a receiving
16 body of water would, under most circumstances, would
17 require an NPDES permit or the state variation on the
18 NPDES permit, the -- so our contention is that there
19 is no means by which to really monitor the water
20 quality that is seeping out of the bottom of the MCR
21 and in turn recovered and then discharged.

22 JUDGE GIBSON: Because 40 percent of it
23 is not accounted for?

24 MR. EYE: About 40 percent. I think it's
25 actually a little less than that.

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1 -- JUDGE GIBSON: And that 40 percent then
2 would migrate out into the groundwater or fault or
3 whatever that were in that area?

4 MR. EYE: Right, and again the area
5 around South Texas plant is fairly environmentally
6 sensitive -- lots of wetlands, lots of estuaries, lots
7 of surface water outcroppings -- groundwater
8 outcroppings, rather. And so it's this unregulated
9 wastewater discharge that we are the most concerned
10 about.

11 We contend that it should be regulated or
12 not dumped -- or not discharged.

13 JUDGE GIBSON: So what happens to the
14 other 40 percent? Does it get monitored in some way?
15 Does it get accounted for in some way? Or are these
16 assumptions in error?

17 MR. FRANTZ: First of all the numbers are
18 68 percent of the water that goes through the bottom
19 of the reservoir is then discharged through these
20 pressure relief valves; 32 percent actually goes into
21 the aquifer.

22 JUDGE GIBSON: So it's 32 instead of 40;
23 fair enough. Okay, let's talk about the 32 percent.

24 MR. FRANTZ: Okay. First of all we're
25 talking about water from the main cooling reservoir as

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1 we've discussed previously. That water is discharged
2 in accordance with our TPDES permit. So that gives
3 us assurance right there that the water quality is
4 sufficient.

5 JUDGE GIBSON: Let me ask you a question
6 in that regard. The assumption here it would seem to
7 me is that the quality of the water at the discharge
8 point when you slow it down or whatever is the same as
9 the water that is migrating through the unlined part
10 of the main cooling reservoir. Is there a basis for
11 that assumption? I mean I truly don't know. I would
12 think you might have more settling. Then again you
13 might have filtration through the bottom of the lake.
14 I don't know. I'm just curious. What is the reason
15 for the assumption that the quality of that water is
16 about the same?

17 MR. FRANTZ: Certainly with respect to
18 dissolved solids you would have thorough mixing, so I
19 think that is a valid assumption that you would have
20 more or less uniform concentrations through the main
21 cooling reservoir.

22 With respect to dissolved solids, again I
23 think it's a fair assumption that you'd have pretty
24 thorough mixing, and the difference between one part
25 of the reservoir and the other part would not be

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1 great. But I don't have a particular citation for you
2 to substantiate that.

3 I will mention though that the TPDES
4 permit does explicitly authorize the discharge of --
5 from the bottom of the reservoir through these relief
6 wells to the Colorado River. That is 68 percent of
7 the total amount. So that is explicitly authorized,
8 and the actual language of the permit is, the
9 discharges from sources such as the reservoir or deep
10 wells. So I think it's also a fair assumption that
11 this permit is probably broad enough to include
12 discharges to the groundwater also.

13 JUDGE GIBSON: Have you done a comparison
14 of the constituents of the discharges from the
15 pressure relief valves and the water in the main
16 cooling reservoirs? Is it essentially the same?

17 MR. FRANTZ: I believe it is, but let me
18 check with my client.

19 JUDGE GIBSON: Please.

20 (Counsel confers with client)

21 MR. FRANTZ: Once the 32 percent goes
22 into the groundwater there is some mixing in the
23 groundwater itself, and so we would expect -- actually
24 there would have to be a somewhat higher quality by
25 the time it reaches the river than the water that is

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1 discharged through the relief wells.

2 JUDGE GIBSON: And -- that's okay, go
3 ahead, it's okay, we want to get it right.

4 MR. FRANTZ: Also I might add that even
5 with respect to the water that is being discharged
6 from the relief wells, again you would expect that to
7 be somewhat higher quality than in the reservoir
8 itself. But again through the dilution effect in --
9 also I guess just through the cleansing effect of
10 going through the ground itself.

11 JUDGE GIBSON: Right, and you wouldn't
12 have algae. You wouldn't have biomass, I take it, in
13 the material that was going through the pressure
14 relief valve like you would in stuff going out the
15 main cooling reservoir?

16 MR. FRANTZ: I don't know that we have
17 much algae.

18 JUDGE GIBSON: To the extent you have
19 any.

20 MR. FRANTZ: Yes, I think it's correct.

21 JUDGE GIBSON: Okay.

22 MR. EYE: Your Honor, may I?

23 JUDGE GIBSON: Yes, go ahead.

24 MR. EYE: I may have missed it, but you
25 asked a question about whether there had been a

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1 comparison of water quality in the MCR compared to
2 that which is discharged out the pressure relief
3 valves. And I may have missed the answer; I just
4 apologize if counsel could perhaps repeat that.

5 MR. FRANTZ: I think the quality of the
6 water that is being discharged into the groundwater
7 regardless of where it goes is higher than the quality
8 in the reservoir itself due to dilution by the
9 groundwater itself.

10 And also we believe that the water that's
11 being discharged into the aquifer and then eventually
12 into the river is of higher quality than the water
13 that is being discharged through the relief wells, so
14 there's more chance for dilution.

15 MR. EYE: Thank you.

16 JUDGE GIBSON: And I think that would be
17 easy to look at. I don't know if an actual comparison
18 was done, but it would be very easy to look at,
19 because you could look at the discharge monitoring
20 reports that were submitted to the Texas Commission on
21 Environmental Quality and you could see -- they just
22 have probably different outflow numbers.

23 MR. EYE: The only concern we would
24 raise, and I think it's in the context of this
25 contention, is that true, there is this process of

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1 mixing, but in the process of mixing you are actually
2 contaminated water that prior to that was not
3 contaminated, and that's an effect. That is actually
4 diminishing the water quality, the groundwater
5 quality, before the MCR seepage is mixed with it.

6 And that --

7 JUDGE GIBSON: Yes, but I think what is
8 being said here is that the quality of the groundwater
9 is actually measured by virtue of the fact that they
10 have these pressure relief valves, okay. That water
11 quality is better than the water quality of the blow
12 down from the reservoir, okay. The -- to the extent
13 that it remains in there it probably is a higher
14 quality than that.

15 Now I appreciate the fact you are saying,
16 but that contaminates the groundwater. But it also
17 sounds like all of that material is already meeting
18 any EPA safe drinking water standards for all of these
19 constituents, even in the reservoir, and it is a
20 higher quality when it's actually in the groundwater.
21 I think that is what they are saying.

22 MR. EYE: I think it is too, but I don't
23 know that that is quantified. I don't know that there
24 is -- and I think the point was raised earlier, just
25 exactly what is the quality of the water that is

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1 discharged. And perhaps you are right.

2 JUDGE GIBSON: If it weren't for the fact
3 that they have pressure relief valves, I would have --
4 I think that is a valid concern. But I think what
5 they are saying is the pressure relief valves are
6 effectively a measure of the quality of what is in the
7 groundwater, because they are recovering whatever is
8 in the groundwater through those pressure relief
9 valves that would have been leaked out of the main
10 cooling reservoirs, right?

11 MR. EYE: Agreed.

12 JUDGE GIBSON: And it is of a higher
13 quality than the water in the reservoir is what they
14 just said.

15 MR. EYE: We presume, but there is no
16 empirical evidence to support it.

17 JUDGE GIBSON: No, I think it would be in
18 the discharge monitoring reports for the pressure
19 relief valves, right?

20 MR. FRANTZ: My understanding we monitor
21 the pressure relief valve wells for tritium only.

22 JUDGE GIBSON: For tritium only?

23 MR. FRANTZ: Yes.

24 JUDGE GIBSON: You don't measure for
25 these other constituents?

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1 MR. FRANTZ: That's my understanding;
2 that's correct. Again, because the TPDS permit does
3 not require us to, and we are authorized to discharge
4 by that permit through the pressure relief valves --
5 wells.

6 JUDGE GIBSON: Well, it sounds like with
7 respect to tritium it's of higher quality; with
8 respect to the rest of the parameters it sounds like
9 they don't know, because they do not monitor for those
10 other constituents.

11 MR. EYE: And we would contend that that
12 is something that is necessary under NEPA.

13 JUDGE GIBSON: I understand. Now that
14 raises an interesting question. If the only thing you
15 are monitoring for out of the pressure relief valves
16 is tritium then the suggestion would be that the
17 discharges from the pressure relief valve are not
18 controlled by the Texas Commission on Environmental
19 Quality.

20 MR. FRANTZ: It's authorized by the
21 permit. There are no monitoring requirements imposed
22 by the permit. And to the extent they are contending
23 that we need monitoring requirements, under NEPA, that
24 is a direct challenge to the statute. Section
25 511(c)(2) of the Clean Water Act, which is 33 USC

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1 Section 1371(c)(2) explicitly prohibits agencies from
2 using NEPA to impose additional water quality
3 standards including additional monitoring
4 requirements.

5 And I'd also refer the Board to the appeal
6 board's decision in Yellow Creek, which is ALAB-515,
7 and the Commission's decision in Vermont Yankee, which
8 is CLI-07-16. Which again explicitly prohibits the
9 NRC from imposing additional monitoring or other
10 effluent requirements beyond those imposed by the
11 state or under the NPDS permit.

12 JUDGE GIBSON: Okay, and the staff, you
13 raised the issue of the Carolina Power & Light case in
14 I believe your answer. That case stands for the
15 proposition that once EPA or a delegated state in this
16 case makes a judgment about the terms and conditions
17 in an NPDES permit, the NRC's powerless to change the
18 non-radioactive provisions of that permit; correct?

19 MS. KIRKWOOD: Yes.

20 JUDGE GIBSON: Now, recognizing that the
21 NRC is powerless to impose its own restrictions,
22 nevertheless it is something that might be addressed
23 in an environmental report or in an environmental
24 impact statement; correct?

25 MS. KIRKWOOD: Yes.

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1 JUDGE GIBSON: It sounds to me like we
2 have a pressure relief valve that is discharge that is
3 not controlled in terms of parameters. Is it
4 controlled in terms of flow?

5 MR. FRANTZ: There are no limits at all.

6 JUDGE GIBSON: No limits?

7 MR. FRANTZ: It's just authorized.

8 JUDGE GIBSON: Okay. Thank you.

9 MR. EYE: - Your Honor, just to close on
10 that contention if I may.

11 JUDGE GIBSON: Sure.

12 MR. EYE: I think that the point that we
13 want to make is that to the extent that there is an
14 unregulated discharge, and to the extent that it
15 cannot necessarily be limited by NRC order, that
16 doesn't preclude it from being within the scope of
17 issues that ought to be taken up under NEPA. And I
18 think that that -- I want to make sure that that is
19 clear in our -- as a part of our contention.

20 JUDGE GIBSON: I want to raise one other
21 question that rises from this contention. Clearly if
22 we have a drinking water well which I don't think we
23 have here, but if we had a drinking water well that
24 was hydrologically connected with the water that was
25 in turn hydrologically connected to the main cooling

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1 reservoir, then clearly EPA and the state of Texas
2 would have responsibility for ensuring that that
3 drinking water well met EPA standards and it would be
4 regulated by them accordingly.

5 Certainly we have already identified the
6 fact that the state of Texas and EPA are going to be
7 responsible for wastewater discharges from these
8 pressure relief valves, and from the blow down from
9 the main cooling reservoir, and into the main cooling
10 reservoir, and that the NRC is responsible for
11 effluent discharges of radioactive materials into the
12 cooling reservoir and from the pressure relief valves
13 and the blow down.

14 Does anyone have responsibility for the
15 quality of the groundwater that is hydrologically
16 connected with the main cooling reservoir, but that is
17 not, okay, connected in some way to a drinking water
18 source?

19 (Pause)

20 MR. FRANTZ: Perhaps a bit of a
21 clarification. The water discharged from the main
22 cooling reservoir through the bottom that goes into
23 the aquifer is discharged to the what's called the
24 shallow aquifer. The drinking water wells are from
25 the deep aquifer, and so there really isn't much if

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1 any connectivity between those two aquifers. ----

2 JUDGE GIBSON: Right, there is probably
3 some sort of aquatard that prevents the transmission
4 from these more shallow to the lower. I don't think
5 there has been any allegation that the drinking water
6 aquifer has been affected by -- I don't think the
7 petitioners have made that allegation.

8 MR. FRANTZ: That's correct. Also we
9 believe that the water development board may have some
10 authority over the quality of water, but again I hate
11 to hang my hat on that. We would need to do a little
12 more research on that.

13 There is also the coastal plains
14 groundwater district that authorizes permits for use
15 of groundwater, and they also may have some control
16 over the quality of the groundwater.

17 Can I add one more point very quickly?

18 JUDGE GIBSON: Yes.

19 MR. FRANTZ: To the extent they are
20 making a claim regarding some water quality impacts or
21 environmental impacts, they haven't provided any
22 support for that claim. There is nothing in the Ross
23 report that even identifies an environmental impact;
24 there is nothing. And unless they identify some
25 environmental impact there just isn't any basis for

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1 this contention. -

2 And the report by Dr. Ross is so cursory,
3 and I think all she says is that the consequences may
4 be dire. But she never says what the consequences
5 are. And without some identification of the
6 environmental impacts, this contention is just simply
7 baseless.

8 JUDGE GIBSON: Okay. Now with respect to
9 the coastal plains --

10 MR. FRANTZ: Groundwater.

11 JUDGE GIBSON: -- groundwater
12 conservation district, okay, have you obtained a
13 permit from them, obtained any use permit from them,
14 consulted with them? Is there any correspondence with
15 that entity about this groundwater that may be
16 effected by discharges from the main cooling
17 reservoir?

18 MR. FRANTZ: We do have existing permits
19 that we're using currently for units #1 and #2. We
20 will also use those existing permits for units #3 and
21 #4. Again those are from the deep aquifer, not from
22 the shallow aquifer, which is where the discharges
23 might be.

24 JUDGE GIBSON: And I am talking about the
25 shallow one.

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1 MR. FRANTZ: I don't believe there has
2 been -- let me contact --

3 (Counsel confers with client)

4 MR. FRANTZ: We have not engaged in any
5 conversations with the district on quality.

6 JUDGE GIBSON: And their primary interest
7 is in subsidence, isn't it? That is their main
8 concern, that you are going to have big sinkholes
9 around there is you start sucking all the groundwater
10 out?

11 MR. FRANTZ: That is one of their main
12 interests, yes, and also assuring availability of
13 water.

14 JUDGE GIBSON: Okay.

15 Why don't we turn to contention #15? Oh,
16 we have some questions on #14, I'm terribly sorry.

17 JUDGE ARNOLD: I have no familiarity with
18 the permitted discharge. Let me ask you this. For a
19 permitted discharge, that specifies the source of the
20 discharge, the destination and the flow path?

21 MR. FRANTZ: It basically specifies the
22 outfall and the source, yes, and then it specifies the
23 limits on the --

24 JUDGE ARNOLD: The outfall is the path it
25 takes to get there?

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1 MR. FRANTZ: Not the pathway but the
2 actual discharge point. And it also again specifies
3 the source where it's coming from. But for example
4 there wouldn't be a description of a pipe from the
5 plant into say the main cooling reservoir.

6 JUDGE ARNOLD: There wouldn't be?

7 MR. FRANTZ: No, it just describes where
8 the discharge is into the main cooling reservoir, and
9 where it's coming from.

10 JUDGE ARNOLD: In Dr. Ross' paper she
11 also had a -- for the previous contention had a list
12 of TPDES permit effluent limits. And I looked at that
13 and saw the outfall from the MCR to the Colorado River
14 has a daily average limit of 144 mega-gallons per day;
15 does that sound about right?

16 MR. FRANTZ: Yes, I believe it is. And
17 again I might add we have only used that once in the
18 last 10 to 15 years --

19 JUDGE ARNOLD: Is that mega-gallon, is
20 that million gallons, not mega gallons; is that right?

21 MR. FRANTZ: Million.

22 JUDGE GIBSON: Same thing.

23 JUDGE ARNOLD: Same thing?

24 JUDGE GIBSON: Yes.

25 MR. FRANTZ: Again, we have not used that

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1 with one exception.

2 JUDGE ARNOLD: But you are permitted to?

3 MR. FRANTZ: That is correct.

4 JUDGE ARNOLD: And the amount of water we
5 are looking at now is 32 percent of 5,700 acre-feet
6 per year, and it turns out that is about 1 percent of
7 the permitted outfall. And they are pretty much going
8 from the same place to the same place, because how do
9 you separate the river from the groundwater:

10 MR. FRANTZ: Yes.

11 JUDGE ARNOLD: I guess why should they be
12 concerned with something that is 1 percent of what is
13 permitted to go from the main cooling reservoir to the
14 environment, to groundwater and the river?

15 MR. FRANTZ: That is the quantity piece
16 of it, but then there is the quality piece of it. And
17 without subject to check on your quantification is 1
18 percent, I mean it sounds, just doing kind of the
19 back-of-the-envelope math it sounds right. But what's
20 the unknown is what are the real constituents of that
21 water. What is the contamination profile?

22 JUDGE ARNOLD: And do you have any
23 information to suggest that it wouldn't be the average
24 of what's in the MCR, or that it would be worse than
25 the permitted outfall from --

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1 MR. FRANTZ: I don't think -- I'm sorry.

2 JUDGE ARNOLD: Well, go ahead.

3 MR. FRANTZ: I don't think we know, Your
4 Honor. And that's again I think that is one of those
5 unknowns that in our judgment ought to be covered in
6 the context of the COLA or the application.

7 JUDGE ARNOLD: I'm done.

8 JUDGE GIBSON: If we could turn to
9 contention #15. It appears that in contention #15
10 you are asserting that there is insufficient water
11 quality available to the applicant to start up units
12 #3 and #4, and that the environmental report does not
13 satisfy you in how it addresses that. Is that a fair
14 characterization?

15 MR. EYE: It's a quantity issue
16 primarily, yes, Your Honor.

17 JUDGE GIBSON: Now in response the
18 applicant's answer contends that, you know, your
19 petition is in error in that it has addressed these
20 water quantity issues in the environmental report.
21 Applicant claims that there is plenty of surface
22 water; that there is plenty of groundwater when that
23 is needed; and that if a drought -- there is a drought
24 control plan available if water quantity is reduced.
25 And then I couldn't find any reply that you made to

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1 those points that they were stating were a refutation
2 of what you put in your petition.

3 Could you explain how you think that is --
4 remains a viable contention in light of what the
5 applicant has said about water quality.

6 MR. EYE: To the extent that there are
7 times -- and I think that the Ross report specified
8 from January 1, 2001 through September 30, 2006 there
9 were 69 days when withdrawal from the Colorado was
10 equal to or greater than one-quarter of the entire
11 river flow. And it further notes that on September
12 16th, 2001, the withdrawal was 509 cubic feet a
13 second, and that constituted 48 percent of the total
14 river flow. That's with two units.

15 Four units operating, I'm not suggesting
16 that it's strictly a doubling because the two new
17 units would be slightly larger. But if you double it
18 you are nearly at 100 percent. And this is a water
19 quantity issue that according to the calculations that
20 Dr. Ross has performed, raises a question as far as
21 whether you have enough quantity really to satisfy not
22 only the needs of the plant but to reasonably allow
23 downstream use both by humans and flora and fauna to
24 sustain itself.

25 JUDGE CHARBENEAU: You're got 69 days

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1 between 2001 and 2006 with significant withdrawals
2 compared to the water flow. Has there been any
3 evidence of adverse impacts on the river from anything
4 during that time period?

5 MR. EYE: Your Honor, I don't know of
6 specific analyses that have been done as a result of
7 those particular 69 days; I do not know the answer to
8 that. However I think it is also reasonable to infer
9 that a diminished quantity has quality impacts, and it
10 has impacts on the ability of downstream users, both
11 human and otherwise, to be sustainable.

12 This is how much water is available for
13 all uses, not just the power plant's uses.

14 JUDGE CHARBENEAU: Is there any local
15 evidence to suggest that groundwater withdrawals to
16 supplement surface water has had or would have a local
17 impact on the Colorado River flows?

18 MR. EYE: Once again, Your Honor, I don't
19 know of specific instances where that has been done,
20 where there has been an impact analysis from that.
21 But now we are talking about potentially doubling
22 whatever the withdrawal rate was, with two additional
23 units, and it's the petitioner's contention that that
24 kind of significant increase in draw down of water
25 resources is worthy of an analysis to determine

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1 whether there will be environmental effects.

2 If we were to assume a repeat of the same
3 pattern in the future once four units are operating
4 where during some days you are withdrawing nearly a
5 quarter or perhaps greater than a quarter of the total
6 river flow, and with two units it could go up to
7 perhaps half or more, it's commonsense that there will
8 be some impact. One only has to live close to a river
9 during drought periods to see that for example the
10 water quality diminishes. There is a greater
11 concentration of total dissolved solids for example
12 during these periods of time.

13 Does that have an effect on everything
14 from fish and invertebrates and other invertebrates
15 and so forth? It makes sense that it does. Does it
16 have an effect on human use of this water? It does.
17 Total dissolved solids is one of the things that has
18 to be dealt with when humans use water from the
19 rivers.

20 JUDGE CHARBENEAU: This is for the
21 applicants. Does the make up water come -- I'm
22 assuming it does come from the deeper aquifer, when
23 you use make up from groundwater.

24 MR. FRANTZ: We have two sources of
25 water, the water that is used to help cool the plant

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1 is water that is taken from the Colorado River and put
2 into the main cooling reservoir; that is the bulk of
3 our water.

4 We also withdraw some water from the deep
5 aquifer to use for selected plant systems like the
6 ultimate heat sink and the fire protection system and
7 a few other systems. That is a relatively small
8 amount compared to the water withdraw from the river
9 itself.

10 JUDGE CHARBENEAU: So if the river water
11 is diminished, the alternative for cooling is what?

12 MR. FRANTZ: First of all, we have
13 contrary to his statement, we have analyzed water
14 withdrawals from the river, and we have analyzed it
15 under conditions of extreme drought. And we have
16 shown that even under extreme drought conditions there
17 is enough firm water available to supply our needs.

18 Beyond that, let's assume we go beyond
19 what we have ever experienced in the past, and there
20 is a drought that is more severe than what we've ever
21 seen before. We still have in that case back up water
22 rights that we can draw upon, to ensure we have an
23 adequate water supply for our main cooling reservoir.

24 So there is simply no basis at all for
25 these allegations by petitioners. We evaluate this in

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1 detail in our environmental report; and I refer the
2 board in particular to Section 5.2.2. They don't
3 contest the statements in that section; they don't
4 even mention that section.

5 In particular we also evaluate the impact
6 on the river, and on the environment, during
7 withdrawals during low flow conditions on the river,
8 which is exactly what they are looking in their Dr.
9 Ross' report. And we show that under low flow
10 conditions withdrawals still have a small impact.

11 And again they haven't contested that
12 analysis, and they haven't even mentioned it.

13 JUDGE CHARBENEAU: You kind of cut into
14 my last question which was going to be for the
15 petitioners, what dispute do you have with the
16 discussion, which is fairly lengthy in the ER on water
17 use.

18 MR. EYE: Well, a couple of things.
19 Their primary concern is whether they can assure
20 adequate supply for plant needs, and I think I just
21 heard counsel say it, they've got enough to supply
22 power plant needs. Fine. That is their primary
23 concern; that is their objective is to keep that plant
24 up and running.

25 But in terms of according to Dr. Ross'

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1 analysis, you drop the flow of that river by half or
2 more, for a sustained period of time, particularly in
3 a time of protracted drought, it makes commonsense
4 that there are impacts that ought to be considered.

5 This isn't anything that is a radical
6 proposition. Low flows on rivers have impacts on
7 everything that lives close to it or depends on it.
8 And if we are talking about dropping these levels by
9 that kind of quantity, over sustained periods of time,
10 particularly during protracted drought periods -- and
11 you will notice that appended to Dr. Ross' report is
12 a drought map that shows that there are certainly
13 intense periods of drought that even are occurring as
14 we speak. And if we again take into account the
15 effects of global warming which could intensify those
16 protracted droughts, it will only aggravate the low
17 flow effects.

18 So I appreciate that they are attempting
19 to -- I appreciate that they have attempted to do
20 this. But I don't think that they have full grasped
21 the impact of a diminished flow that drops by that
22 much. It's -- so moreover, there are other users on
23 this river than the applicant. City of San Antonio
24 pulls water off the Colorado. There are coal plants
25 that use it, and so there is a competition for this

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1 water. And to think that the top of that hierarchy as
2 far as use, the nuclear plant ought to predominate, I
3 don't think that is a justifiable assumption.

4 MR. FRANTZ: If I can respond just
5 quickly. We as I said have analyzed the river flow
6 during extreme drought conditions, and we have looked
7 at all firm water rights; not just South Texas. South
8 Texas forms a very small portion of the overall water
9 usage on the Colorado River. We have looked at all
10 firm water rights, and we have shown that the firm
11 water that is available exceeds what the rights are.
12 So there is going to be sufficient rights, or
13 sufficient water, even under these extreme drought
14 conditions.

15 And I appreciate the fact that Mr. Eye has
16 his commonsensical view, but the fact of the matter
17 is, arguments by counsel don't suffice to satisfy
18 Section 2.309(f)(1)(5). They need something from some
19 technical expert that says there is going to be an
20 environmental impact. And we don't have that here.
21 There is no - nothing in Dr. Ross' report identifies
22 any environmental impact.

23 Except the fact that there is going to be
24 cases where there is low flow on the river, they
25 haven't contested at all our analysis that shows that

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1 even during low flows the withdrawals will have small
2 impacts.,

3 This contention just simply does not
4 satisfy either Section 2.309(f)(1)(5) or (6).

5 JUDGE CHARBENEAU: Thank you.

6 JUDGE GIBSON: I think we will recess for
7 the evening. We will start back up with contention
8 #16 tomorrow. And I hope you all have a nice evening,
9 and we will see you in the morning at 9:00 o'clock.

10 (Whereupon at 5:58 p.m. the proceeding in
11 the above-entitled matter was adjourned)

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CERTIFICATE

This is to certify that the attached proceedings
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in the matter of: South Texas Project Units 3&4

Name of Proceeding: Oral Arguments

Docket Number: 52-012/013-COL,

ASLBP No. 09-885-08-COL-BD01

Location: Bay City, Texas

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