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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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ATOMIC SAFETY AND LICENSING BOARD PANEL

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HEARING

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In the Matter of: : Docket Nos.
 DUKE ENERGY CAROLINAS, : 50-269-SLR
 LLC : 50-270-SLR
 (Oconee Nuclear Station, : 50-287-SLR
 Units 1, 2, and 3) : ASLBP No.
 : 22-973-01-SLR-BD01

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Tuesday, November 16, 2021

Video Teleconference

BEFORE:

G. PAUL BOLLWERK III, Chair
 NICHOLAS G. TRIKOUROS, Administrative Judge
 DR. GARY S. ARNOLD, Administrative Judge

1 APPEARANCES:

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P R O C E E D I N G S

1:00 p.m.

CHAIRMAN BOLLWERK: Good afternoon. This is Administrative Judge Paul Bollwerk, Chairman of the Atomic Safety and Licensing Board, and today we're here to conduct an initial prehearing conference and oral argument in the subsequent license renewal proceeding in which Applicant, Duke Energy Carolinas LLC, or Duke, requests that the Code of Federal Regulations, or CFR Part 50, Operating Licenses, for its Oconee Nuclear Station, Units 1, 2 and 3, be extended for a second 20-year period; that is, until February 6, 2053, October 6, 2053, and July 19, 2054, respectively.

In response to a July 28, 2021 hearing opportunity notice published in Volume 86 of the Federal Register at page 40,662, on September 27, 2021, Petitioners Beyond Nuclear, Inc. and Sierra Club, Inc., submitted a hearing petition that included three contentions and an associated waiver request under 10 CFR Section 2.335, challenging Duke's subsequent license renewal request.

Previously in our October 29, 2021, issuance regarding procedures for this initial prehearing conference, we indicated the Petitioners'

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1 contentions two and three, entitled, respectively,
2 Failure to Consider New and Significant Information
3 Regarding Significant Impacts of Reactor Accidents
4 Caused by Failure of Jocassee Dam, and Failure to
5 Consider New and Significant Information Affecting
6 Duke's Analysis of Severe Accident Mitigation
7 Alternatives, would be the focus of the conference.

8 In these issues statements, Petitioners
9 claim that the Environment Report, or ER, that
10 accompanies Duke's subsequent license renewal
11 application, fails to satisfy the NRC regulations
12 implementing the National Environmental Policy Act, or
13 NEPA.

14 More particularly, Petitioners declare
15 that the ER does not comply with Sections 51.53(c)(2)
16 and 51.45(a) of the Agency's NEPA regulations, because
17 it does not address the environmental impacts of
18 operating the Oconee facility during the extended
19 subsequent license renewal term, including the effects
20 on Duke's Severe Accident Mitigation Alternatives, or
21 SAMA, analysis, given the significant risk of a core-
22 melt accident caused by a failure of the nearby
23 Jocassee Dam.

24 In addition, because these contentions
25 involve a NEPA Category 1 issue or the equivalent,

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1 that for the listing in Table B-1 of Part 51,
2 Subpart A, Appendix B, of the Agency's NEPA
3 implementation provisions, presumably would be barred
4 from consideration in this subsequent license renewal
5 proceeding, Petitioners ask that we find their
6 Petition requesting a Section 2.335 waiver of
7 Section 51.53(c)(3)(I), 51.53(c)(3)(ii)(L), 51.71(d)
8 and 51.95(c)(1), meet the four-part test for granting
9 such a waiver, so as to permit consideration of their
10 contentions.

11 In answers dated October 22, 2021, the
12 Nuclear Regulatory Commission Staff and Duke seek the
13 denial of Petitioners' hearing request, asserting that
14 while Petitioners have established their standing to
15 intervene, they nonetheless have failed to show that
16 they are entitled to a waiver under Section 2.335, or
17 to submit an admissible contention.

18 In a November 5, 2021 reply, Petitioners
19 against declared that they should be admitted as
20 parties to this proceeding because their Waiver
21 Petition and contentions meet the applicable
22 regulatory standards in Sections 2.335 and
23 2.309(f)(1), governing waivers and contention
24 admissibility.

25 This prehearing conference has been

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1 convened to conduct an oral argument that will allow
2 the participants to present their positions regarding,
3 and respond to, Board questions concerning the
4 contested matters of the sufficiency of Petitioners'
5 Waiver Petition and the admissibility of their two dam
6 failure impacts contentions.

7 Before beginning the argument, I'd like to
8 introduce the Board members, and then have the
9 representatives of the participants identify
10 themselves for the record, along with any individuals
11 they have designed as available to provide them
12 assistance in responding to the Board's questions.

13 The Administrative Judges, Nicholas
14 Trikouros and Gary Arnold, the two technical members
15 assigned to this Licensing Board, are both nuclear
16 engineers.

17 As I indicated at the outset, my name is
18 Paul Bollwerk. I'm an attorney and, as I indicated,
19 the Chairman of this Licensing Board.

20 Judge Arnold and I are participating via
21 video connections from the Licensing Board Panel's
22 Rockville, Maryland, offices, as are our law clerks,
23 Brooke Taylor and Allison Wood, while Judge Trikouros
24 is connected from his home in New Jersey.

25 At this point, I'd like to have counsel

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1 for the various participants identify themselves for
2 the record, as well as the individuals they have
3 designated as potentially providing them with
4 assistance in responding to Board questions.

5 Why don't we start with the Petitioners,
6 then move to Applicant Duke, and finally, the NRC
7 Staff. Ms. Curran?

8 MS. CURRAN: Good afternoon Judge
9 Bollwerk, Judge Trikouros, Judge Arnold. My name is
10 Diane Curran. I represent the Petitioners, Beyond
11 Nuclear and the Sierra Club. And with me in the room
12 today is Paul Gunter, who is Director of Reactor
13 Oversight Project at Beyond Nuclear, and Jeffrey
14 Mittman, who is the Petitioners' expert in this
15 proceeding. Thank you.

16 CHAIRMAN BOLLWERK: Thank you. Duke,
17 please?

18 MR. LIGHTY: Good afternoon, Your Honors.
19 Ryan Lighty of Morgan Lewis and Bockius, LLP,
20 appearing for the Applicant, Duke Energy Carolinas
21 LLC. And joining me today are my colleagues and
22 counsel of record, Paul Bessette, also of Morgan
23 Lewis, and Tracy LeRoy of Duke Energy Corporation.

24 CHAIRMAN BOLLWERK: All right, thank you.
25 And the NRC Staff?

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1 MS. WOOD: Good afternoon, Your Honors.
2 My name is Mary Frances Wood. And with me in the room
3 today is my co-counsel on this matter, Mr. Joe
4 Azeizat, as well as NRC Staff members Kevin Folk and
5 Angela Wu. My other co-counsel in this matter, Megan
6 Wright, is available remotely.

7 And additionally, with permission of the
8 Board if I need to confer with NRC Staff during the
9 oral argument, I do have some additional Staff
10 available remotely.

11 CHAIRMAN BOLLWERK: All right, thank you.

12 MS. WOOD: Thank you, Your Honor.

13 CHAIRMAN BOLLWERK: Notwithstanding we're
14 using a video link via WebEx to which the court
15 reporter has access, I would ask that as a courtesy to
16 those members of the public and others who are joining
17 us via a listen only telephone connection, as they
18 start to speak in delivering their argument or
19 responding to a Board question, counsel should please
20 identify themselves so that it will be clear who is
21 talking.

22 Also, I would ask that after the
23 conference is adjourned, counsel for the participants
24 should stay connected until we confirm with the court
25 reporter that there's no spelling or other clarifying

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1 information needed for transcript preparation.

2 Additionally, as the participants'
3 representatives are aware, we are attempting to
4 monitor everyone's connectivity in an effort to see if
5 anyone drops off unexpectedly, so we can take steps to
6 try to ensure we don't move forward with the argument
7 until they are able to reconnect via video link or
8 telephone.

9 And I would note again that we made
10 available to the participants and interested members
11 of the public, including via a Board issuance in this
12 case, an NRC website notice, and an Agency press
13 release, information on how to access this conference
14 by telephone on a listen-only basis.

15 We hope that those members of the public,
16 or others who wish to listen to this conference, have
17 been able to access the bridge line this afternoon.

18 I would observe as well that this
19 proceeding is being transcribed and a transcript will
20 be available to the participants late this week or
21 early next week via the Agency fee-filing system
22 notice, with incorporation into the NRC's publicly
23 available electronic hearing docket, shortly
24 thereafter.

25 As to the process that we'll follow for

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1 today's argument, as we outlined in our October 29,
2 2021 issuance, each participant's designated
3 representative has been allotted a period of time
4 within which to present its position regarding these
5 matters.

6 We'll hear first from Petitioners, who
7 have been given a total of 30 minutes, of which they
8 may reserve up to ten minutes for a rebuttal
9 presentation, following the Duke and Staff
10 presentations.

11 Duke and the Staff will be heard from in
12 that order, have each been allotted 20 minutes to
13 present their arguments.

14 And while Board members normally might
15 interpose questions during a participant's argument
16 presentation, in this instance we'll endeavor to wait
17 until all the participant presentations are concluded.

18 Thereafter, following a short break, we'll
19 explore the questions that have been raised in the
20 light of their presentations and filings regarding the
21 two contentions that are the focus of the argument.

22 I would observe as well that the matters
23 at issue before the Board have been fully briefed and
24 we read the participants' pleadings. So, as we
25 indicated in our October 29, 2021 Order, we hope the

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1 participants in their arguments will focus on
2 identifying the principal points in controversy, and
3 any information that supports or rebuts their legal
4 and/or factual claims regarding those matters.

5 And as we also note there, because this
6 argument is not an evidentiary hearing, participants
7 should not attempt to introduce evidence during the
8 argument.

9 Also, we would note that some information
10 cited by the participants in their pleadings consisted
11 of material redacted, at least in part, because it
12 contained non-public information relating to facility
13 security and other matters.

14 While we do not anticipate discussing any
15 non-public information this afternoon, we rely in
16 particular on Applicant Duke and the NRC Staff to
17 alert us that something being discussed might be
18 verging on non-public information, so we can refrain
19 the inquiry to avoid any problematic disclosures.

20 And finally, this session hopefully will
21 not go much more than three hours.

22 And all that being said, let me turn to
23 Ms. Curran and find out how much time you'd like to
24 reserve for rebuttal.

25 MS. CURRAN: Thanks, Judge Bollwerk. I'm

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1 going to reserve ten minutes, please.

2 CHAIRMAN BOLLWERK: All right, very good.
3 Then you have the floor.

4 MS. CURRAN: All right, thank you very
5 much. All right, I'd like to address a couple of
6 issues in the time I've been given, particularly the
7 scope of the NEPA license renewal review in this
8 proceeding.

9 Second, the environmental significance of
10 NRC's outstanding safety evaluations in 2011. Third,
11 what is new and significant about the information
12 submitted by Petitioners. Third, what are the unique
13 and special circumstances in this case such that a
14 waiver should be granted.

15 And then finally, I'd like to respond to
16 some of the criticisms of Mr. Mittman's technical
17 evaluation of the Environmental Report.

18 Starting with the legal framework. On
19 page 16 of the NRC Staff's response to our hearing
20 request, the Staff states, because the Petitioners
21 raise issues that are addressed through the NRC's
22 normal ongoing regulatory oversight of the Oconee
23 facility, they have failed to offer an admissible
24 contention.

25 Respectfully, the Staff's assertion is

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1 erroneous in two key respects. First, the Staff bases
2 its argument on an incorrect interpretation of NRC
3 case law and the license renewal GEIS regarding the
4 scope of NEPA review.

5 The NRC Staff relies on a case, Tennessee
6 Valley Authority, LBP 13-8, 7(b)(8), NRC 1, that is a
7 case that was based on the Atomic Energy Act safety
8 review.

9 But there's no dispute here that the NRC
10 has excluded a number of issues from the Atomic Energy
11 Act base license renewal rule, including flooding
12 risk.

13 This is based on the assumption that
14 ongoing regulatory oversight will take care of those
15 issues.

16 That's what the TVA case cited by the
17 Staff says. That's what you'll find in many other
18 license renewal cases, undisputed.

19 But the legal framework for an Atomic
20 Energy Act-based license renewal review does not apply
21 to NEPA reviews. NEPA is a separate and independent
22 statute which requires the NRC to examine all
23 reasonably foreseeable significant environmental
24 impacts, without qualification, without limitation.
25 This is one of the holdings of the Calvert Cliffs

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1 decision cited at page 5 and 6 of our reply.

2 Only if NEPA or the Atomic Energy Act
3 exempted Atomic Energy Act issues from NEPA, could the
4 NRC ignore safety issues under NEPA.

5 That's not to say the NRC cannot use the
6 Atomic Energy Act regulatory process to resolve NEPA
7 issues. And indeed, it does. It relies on the Atomic
8 Energy Act regulatory process to resolve most of the
9 issues that would come up under NEPA, that have to do
10 with radiological impacts.

11 And you can see this in many places in the
12 license renewal GEIS. But I want to point you
13 especially to page 5-12 of the 1996 GEIS, which says,
14 the public risk due to nuclear power accidents has a
15 range of values.

16 The Staff believes that the current
17 regulatory practices ensure that the basic statutory
18 requirement, adequate protection of the public, is
19 met. And for this, the NRC cites the safety goal
20 policy.

21 Then it says, these risk estimates are
22 representative of the magnitude of risk associated
23 with current regulatory practices. So, this is all
24 the way it's supposed to work.

25 The problem here is that despite what the

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1 staff says about the ongoing regulatory practices
2 resolving the issue of flooding, that didn't happen
3 here.

4 As we describe in our hearing request, the
5 NRC did not follow the Atomic Energy Act-based
6 regulatory practices on which the GEIS relies. What
7 happened here is that the Staff did a safety
8 evaluation in 2011, which culminated a long back-and-
9 forth between the Staff and Duke about the flooding
10 risk at Oconee.

11 It culminated in a safety evaluation which
12 said, we find the only way that Duke can provide
13 adequate protection of public health and safety, is to
14 take certain measures to protect the site against
15 flooding risk. And the risk was of a 19½-foot flood.

16 That safety evaluation is still
17 outstanding. It's never been fulfilled by Duke. It's
18 never been repudiated by the Staff. It's there,
19 unresolved.

20 And as long as a safety evaluation that is
21 relied on in the GEIS remains unresolved, according to
22 the NRC's own regulatory practices it becomes an
23 environmental issue. And that is what the license
24 renewal GEIS specifically says -- safety issues can
25 become environmental issues.

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1 Here, we're saying if you've got a safety
2 issue that's unresolved, unaddressed, that becomes an
3 environmental issue and it has to be addressed.

4 It may be that Petitioners can't force the
5 NRC or Duke to do anything, but they're going to have
6 to talk about it in the Environmental Report and the
7 GEIS.

8 Now, Duke and the NRC try to rely on the
9 results of the NRC Staff's post-Fukushima review to
10 claim that the issues raised by the 2011 safety
11 evaluation have been resolved.

12 But for those issues to be resolved, the
13 NRC staff would have had to make a finding that
14 whatever measures Duke has now taken to respond to the
15 post-Fukushima review provide a reasonable assurance
16 of adequate protection to public health and safety.

17 And as we document extensively in both our
18 hearing request and our reply, absolutely none of the
19 NRC's post-Fukushima review documents use that
20 reasonable assurance, adequate protection, language.

21 You can't find it anywhere. The safety
22 evaluation is still sitting out there unresolved and
23 unfulfilled.

24 And as long as the license renewal GEIS
25 depends on the safety process for findings about the

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1 environmental impacts of reactor operation, that is an
2 impact of renewed operation of Oconee that absolutely
3 must be addressed.

4 Oh, I just want to mention that in the
5 2013 revised GEIS, the NRC made it clear that they
6 were not relying on their post-Fukushima review for
7 that revised GEIS. It was still underway. So, that
8 can't be asserted as something that falls within the
9 2013 revised GEIS.

10 The next issue is, why is this risk
11 significant that we presented? Two reasons. First,
12 because the NRC's own best estimate of the likelihood
13 of Jocassee Dam failure, 2.8 times ten to the minus
14 four, puts it well within the range of accident
15 probabilities that the NRC considers significant
16 enough to address through defense-in-depth measures
17 that are needed to provide a reasonable assurance of
18 adequate protection to public health and safety.

19 This is discussed in Mr. Mittman's report
20 and well-illustrated by the graphic on page 11 of his
21 report. I would encourage you to look at that graphic
22 because -- and this graphic was created by the NRC in
23 2008, when the NRC was in the midst of discussions
24 with Duke about the flood risks from the Jocassee Dam.

25 It shows that the NRC's best estimate of

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1 Jocassee Dam failure falls within the range of
2 accident initiators the NRC generally addresses
3 through its Atomic Energy Act-based regulatory
4 program. Thus, the potential for a Jocassee Dam
5 failure is significantly higher than the initiating
6 event likelihood of the accidents evaluated in the
7 license renewal GEIS.

8 For example, at page 5-17, the GEIS says
9 the total probability of a severe accident for a
10 typical reactor, including internal and external
11 events, is, quote unquote, small.

12 But an accident risk of 2.8 times ten to
13 the minus four, as Mr. Mittman calculated based on
14 NRC's own estimate, cannot be deemed small, because
15 the NRC considers it great enough to warrant
16 prevention of the accident through mandatory measures
17 that provide events in-depth.

18 And you'll see on that graphic on page 11,
19 the Jocassee best-estimate the NRC had for Jocassee
20 Dam failure, falls in the middle of that graph,
21 whereas severe accident mitigation measures are off to
22 the side, on the right-hand side, where the
23 probability numbers get a lot lower.

24 Second, as a matter of law, a safety or
25 environmental risk the NRC deems unreasonable or undue

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1 under the Atomic Energy Act, has to be deemed
2 significant because the NRC's regulatory scheme
3 requires that the risk must be addressed in order for
4 the plant to even be allowed to operate.

5 If the regulatory system works, the only
6 thing the GEIS needs to worry about is a smaller
7 number of accidents, so-called severe accidents, whose
8 consequences may be severe, but they're so unlikely
9 their impact can be deemed insignificant.

10 We don't have that situation here. Here,
11 there is, as Mr. Mittman has demonstrated using NRC
12 and Duke documents, the probability of an accident is
13 20 times higher than predicted in the Environmental
14 Report.

15 It goes from the realm of -- although Duke
16 characterizes it as severe low-likelihood, it is
17 actually in the category of accidents that's generally
18 protected against by NRC safety regulations.

19 The implications are profound. As the
20 Commission stated in Pilgrim, COI 12-1, which is cited
21 by the NRC Staff at page 34, note 159, the mitigation
22 measures examined in the license renewal GEIS --
23 that's in parentheses -- are supplemental to those we
24 already require under our safety regulations, for
25 reasonable assurance of safe operation. That's

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1 page 57 of the decision.

2 If Duke hasn't taken measures NRC requires
3 for safe operation, that means there's a gap between
4 adequate protection and the supplemental measures
5 meant to be addressed by SAMAs.

6 This gap has to be discussed in the
7 Environmental Report and in whatever supplemental GEIS
8 the NRC prepared.

9 I think I've talked in my reply about why
10 the information we submitted is new. And I just want
11 to say, in relation to the statement in the 2013 GEIS
12 that the NRC updated its GEIS information about
13 external events -- that's at page 1-34 -- the NRC says
14 it did that before the Fukushima accident.

15 So, that would have had to have been
16 before 2011. But before 2011, the NRC was still in
17 the process of negotiating with Duke what Duke was
18 going to do to address the safety problem the NRC had
19 identified.

20 So, if the NRC was updating the GEIS back
21 then, it would have said, oh, the system's working.
22 Duke and the NRC are working on a way they're going to
23 provide adequate protection and address the safety
24 evaluation. We don't need to talk about this in the
25 EIS.

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1 That's how the system is supposed to work.

2 In terms of special and unique
3 circumstances, clearly they exists here. Because
4 (a) the NRC does not normally leave safety evaluations
5 unaddressed, and (b) the risk of a failure of the
6 Jocassee Dam leading to a core-melt accident is
7 substantially higher than any severe accident
8 evaluated in the license renewal GEIS.

9 In fact, the probability is estimated by
10 Mr. Mittman, based on documents provided by Duke and
11 NRC, falls within the realm of accidents that NRC
12 requires to be addressed under adequate protection
13 measures, not the marginal additional measures that
14 SAMAs constitute.

15 Okay, I don't have too much time left, so
16 I'm going to go to a few of the technical criticisms
17 by Duke of Mr. Mittman's analysis.

18 First, Duke says that Mr. Mittman should
19 have talked about what was in the PRA that is vaguely
20 referred to in the Environmental Report.

21 But as we said in our reply, Duke didn't
22 provide any citation to a PRA, or a way to get it.
23 So, Mr. Mittman reasonably used the information that
24 was presented in the Environmental Report.

25 In fact, that's what we were supposed to

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1 do, was to address the Environmental Report. We can't
2 expect to do a fishing expedition for information that
3 wasn't presented there.

4 And certainly, the only document that Duke
5 has come up with, the FOIA response that has a report
6 in it done for Duke, it's not docketing in ADAMS.
7 There's no ML number, there's no indication it was
8 submitted to the NRC. It doesn't appear to be part of
9 this Environmental Report record.

10 The second issue I want to talk about is
11 environmental impacts of outages. This factor doesn't
12 have to do with flooding. It's a separate factor.

13 How many minutes have I got left?

14 CHAIRMAN BOLLWERK: Five.

15 MS. CURRAN: I've got five minutes left.
16 Okay.

17 But it could contribute to accident risk.
18 And Mr. Mittman relies on the same thing that the
19 license renewal GEIS says about power outages. They
20 say the likelihood of a power outage, or the
21 environmental impacts from accidents at low power and
22 reactor shutdown conditions, are generally comparable
23 to those from accidents at full power. So, if they're
24 comparable, that means you multiply by two.

25 And in that case, under the license

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1 renewal GEIS, the NRC thought that the likelihood of
2 severe accidents was really small. So, you multiply
3 that by two and you don't have anything. Who cares?

4 But we are in a different realm here,
5 where the likelihood of the accident, as demonstrated
6 by Mr. Mittman, is a lot higher.

7 Anything that can contribute to that
8 ultimate determination of core damage frequency is
9 relevant and shouldn't be excluded.

10 And finally, on the issue of overtopping
11 and seismic, once again Duke and the NRC Staff say,
12 well, Mr. Mittman didn't pay attention to other
13 information that was out there.

14 But it is correct that the Environmental
15 Report says nothing about seismic or overtopping. It
16 doesn't say anything.

17 And that was the subject matter of our
18 contention. It was required to be the subject matter
19 of our contention.

20 The NRC's post-Fukushima review may have
21 addressed seismic risk, but that doesn't mean it went
22 into the Environmental Report.

23 And with respect to the draft PRA that's
24 referenced by Duke in its response to our hearing
25 request, that document does say that overtopping of

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1 the Jocassee Dam was addressed.

2 But again, we don't know the providence of
3 that document. It appears to be a draft. It doesn't
4 appear to have been docketed by the NRC. We can't be
5 expected to evaluate documents that Duke doesn't
6 identify or provide access to.

7 So, in conclusion, it is clear that we
8 have satisfied the standards for both admissible
9 contentions and the issuance of a waiver in this
10 proceeding.

11 This is an extremely unusual situation,
12 where there is a fundamental safety evaluation that
13 was never satisfied, never repudiated, never altered.
14 It's just there.

15 And that kind of safety finding is what
16 the GEIS relies on for its environmental conclusions.
17 Plus, we have Mr. Mittman's technical demonstration
18 that, in fact, the potential for a serious accident
19 caused by failure of the Jocassee Dam is much higher
20 than estimated by Duke.

21 Thank you.

22 CHAIRMAN BOLLWERK: All right, thank you,
23 Ms. Curran. You're right at 20 minutes. So,
24 appreciate it.

25 All right, let's turn to Mr. Lighty then,

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1 for Duke.

2 MR. LIGHTY: Thank you, Your Honor. And
3 may it please the Board, Ryan Lighty, appearing for
4 the Applicant.

5 We very much appreciate the opportunity to
6 have this conversation today. But before proceeding
7 to the Board's questions, it would be worthwhile to
8 spend just a moment at the outset to summarize the
9 Petitioners' arguments.

10 Petitioners frame their contentions as
11 claiming that Duke's Environmental Report, or ER, did
12 not consider certain purportedly new and significant
13 information, or --

14 JUDGE TRIKOUROS: Mr. Lighty, I can't hear
15 you.

16 CHAIRMAN BOLLWERK: We seem to have lost
17 your audio. This is Judge Bollwerk.

18 JUDGE TRIKOUROS: I hear you. Can you
19 hear me?

20 CHAIRMAN BOLLWERK: Yes, Judge Trikouros,
21 we can hear you. We can't hear Mr. Lighty. That's
22 the problem.

23 JUDGE TRIKOUROS: Oh, okay.

24 MR. LIGHTY: All right, are you able to
25 hear me now?

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1 CHAIRMAN BOLLWERK: Yes.

2 MR. LIGHTY: Okay, thank you. All right,
3 well, thank you, Your Honor. And may it please the
4 Board, Ryan Lighty, appearing for the Applicant.

5 We very much appreciate the opportunity to
6 have this conversation today. Before proceeding to
7 the Board's questions, it would be worthwhile to spend
8 just a moment at the outset to summarize the
9 Petitioners' arguments.

10 Petitioners frame their contentions as
11 claiming that Duke's Environmental Report, or ER, did
12 not consider certain purportedly new and significant
13 information, or NSI.

14 But the Petition is not at all clear as to
15 what information, precisely, Petitioners are claiming
16 to be NSI.

17 But based on some further clarifications
18 in their reply, we think there are three overarching
19 themes. And I would like to briefly walk through each
20 of those three items.

21 The first theme is simply based on a plain
22 reading of the Petition. Petitioners offer two
23 bullets purporting to specify the information they
24 claim is new and significant.

25 The first bullet identifies, quote, Duke's

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1 own risk analyses, end quote. And on page 15 of their
2 reply, Petitioners clarified that this bullet is
3 intended to reference the 5.9(e) to the minus six
4 value from Duke's 1998 SAMA analysis. And the second
5 bullet mentions the NRC's 2011 safety evaluation.

6 But neither of those is new information.
7 The severe accidents analysis in the GEIS was issued
8 in 2013, more than two years after the 2011 safety
9 evaluation, and more than two decades after Duke's
10 original 1998 SAMA analysis.

11 So, based on a plain reading of the
12 Petition (audio interference) and the NSI. And as
13 Mr. Mittman's hand calculation of core damage
14 frequency, or CDF.

15 As a general matter, it is unclear how
16 this even relates to the proposed contentions.
17 Petitioners --

18 (Audio interference.)

19 COURT REPORTER: This is the court
20 reporter. I'm sorry to interrupt. I don't know if
21 others might have missed some words in that last bit.

22 CHAIRMAN BOLLWERK: If you went back about
23 30 seconds, I think you dropped out a couple of times,
24 Mr. Lighty.

25 MR. LIGHTY: Okay. Let me try this again.

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1 And if not, then perhaps we can take a break and try
2 to refresh the connection. Are you able to hear me
3 now?

4 CHAIRMAN BOLLWERK: Yes.

5 MR. LIGHTY: Okay. So, as I mentioned, I
6 wanted to walk through the three overarching themes we
7 see in the Petition about potential NSI that
8 Petitioners are raising.

9 And the first is based on a plain reading
10 of the Petition, where the Petitioners identify two
11 bullets that purport to specify the NSI.

12 The first identifies, quote, Duke's own
13 risk analyses, and page 15 of the reply, Petitioners
14 clarified that that was intended to reference the
15 5.9(e) to the minus six value from Duke's 1998 SAMA
16 analysis. And the second bullet mentions the NRC's
17 2011 safety evaluation.

18 But neither of those is new. The severe
19 accidents analysis in the GEIS was issued in 2013,
20 more than two years after the 2011 safety evaluation,
21 and more than two decades after Duke's original 1998
22 SAMA analysis. So, based on a plain reading of the
23 Petition, Petitioners have not identified any NSI.

24 The second theme is Mr. Mittman's hand
25 calculation of core damage frequency, or CDF. As a

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1 general matter, it is unclear how this even relates to
2 the proposed contentions.

3 Petitioners do not claim that the
4 calculation itself constitutes NSI. And even if they
5 did, that claim would not make sense because
6 Mr. Mittman's calculation came to light in the
7 Petition many months after the ER was submitted.

8 And the inference to that calculation are
9 from a 2010 memorandum and the 1992 inundation study.
10 So, neither of the inputs is new. And the calculation
11 does not identify any connection to either of the two
12 bullets that I mentioned earlier.

13 Again, it's not clear how this discussion
14 fits into the Petition. But in any event, it does not
15 identify any NSI.

16 Third, in a much broader sense, the
17 Petition seems to present a counterclaim that there is
18 an unresolved safety issue, and because it is
19 unresolved, the environmental impacts must be
20 considered under NEPA.

21 More specifically, Petitioners claim that
22 the 2011 safety evaluation, which was developed as
23 part of the NRC's 2010 corrective action letter, or
24 CAL process, imposed certain requirements on Duke that
25 remain unaddressed.

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1 To be clear, Petitioners' NEPA contentions
2 are inextricably linked to their assertion that there
3 is some unaddressed safety issue.

4 But as is clear from the public regulatory
5 record, that claim is demonstrably incorrect. There
6 is no open safety issue. And there no open corrective
7 actions. And I'd like to very briefly recap the
8 timeline of events that demonstrate that point.

9 The NRC issued the CAL to Duke on June 22,
10 2010, requiring Duke to analyze and address the
11 effects of an assumed hypothetical failure of the
12 Jocassee Dam.

13 Duke submitted its preliminary analysis
14 later in 2010, and the NRC issued an assessment in
15 January 2011, confirming that analysis satisfied the
16 CAL commitment.

17 But then, two months later, the Fukushima
18 earthquake happened. The NRC took immediate action,
19 and among other things, requested that all power
20 reactor licensees, including Duke, reevaluate the
21 flooding hazards at their sites using present day NRC
22 requirements and guidance.

23 Now, the NRC was well-aware that the
24 Oconee Cal remained open, and that the 2011 safety
25 evaluation had been issued. Thus, it issued a

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1 separate letter, dated September 20, 2012, stating
2 that the Agency intended to maintain the CAL active
3 until it could be, and I quote, superseded, end quote,
4 by regulatory action relating to Fukushima responses.

5 On August 8, 2014, Duke submitted a letter
6 to the NRC committing to take certain actions based on
7 the Fukushima reevaluation, rather than the 2011
8 safety evaluation.

9 Duke submitted its final Fukushima
10 reevaluation on March 6, 2015. On April 14, 2016 the
11 NRC issued a Final Staff Assessment, concluding that
12 Duke's Fukushima reevaluation, quote, is acceptable
13 for the purposes of meeting the terms of the June 22,
14 2010 CAL. End quote.

15 On April 29, 2016 Duke notified the NRC
16 that all required physical modifications at the plant
17 had been completed. And on May 19th of that year, the
18 NRC completed an inspection of those modifications.

19 Then, on June 16, 2016 the NRC determined
20 that Dukes Fukushima reevaluation, modifications, and
21 several years of NRC analyses, inspections, and
22 confirmations, quote, provide adequate assurance that
23 the required terms as directed by the June 22, 2010
24 CAL, have been satisfied. End quote.

25 Thus, the NRC declared that -- and I again

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1 quote -- the June 22, 2010 confirmatory action letter
2 is now closed. End quote.

3 Duke and the NRC continued to perform
4 other actions and analyses related to the Fukushima
5 reevaluation, and on November 17, 2020 the NRC stated
6 in writing that all of those actions had been, quote,
7 completed. End quote.

8 Now, the terminology used in those
9 closeout letters is important. The June 22nd
10 confirmatory action letter is now closed. The post-
11 Fukushima actions are completed.

12 The NRC very clearly considered flooding
13 hazard information as part of its current licensing
14 basis oversight, and it did so very carefully over
15 many years of analysis, evaluation, inspection,
16 confirmation, and it unequivocally declared the issue
17 closed and completed.

18 There can be no genuine dispute on this
19 issue, because the regulatory record is unambiguous.

20 To the extent the Petition relies on a
21 claim that this issue somehow remains open, it is
22 obviously wrong, and Petitioners' corresponding
23 arguments fall apart like a house of cards.

24 Now, as is clear from the Petition and
25 supporting documents, Petitioners appear to be using

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1 a NEPA as a backdoor to revisit the NRC's regulation
2 and resolution of the Jocassee Dam safety issue.

3 Mr. Mittman is crystal clear on this point
4 when he states that, quote, NRC's regulation of the
5 Oconee reactors presents grave concerns. End quote.

6 There's also a very important statement on
7 page 6 of Petitioners' reply, in which they claim that
8 when, quote, current regulatory practices, end quote,
9 are not fulfilled, the NRC must address the issue in
10 the context of NEPA.

11 But Petitioners disagreement with the
12 regulatory process is clearly beyond the scope of this
13 SLR proceeding. In other words, to the extent
14 Petitioners are trying to claim that there should be
15 an open safety issue because they disagree with the
16 NRC's decision to close the CAL, and suggests that the
17 NRC instead should have imposed a backfit, as
18 Petitioners seem to suggest at pages 8 and 9 of the
19 reply, that's an entirely different argument. It's
20 also a CLB issue squarely beyond the scope of this
21 proceeding.

22 The bottom line is that Petitioners offer
23 no explanation as to how a resolved safety matter
24 somehow identifies an unaddressed NEPA issue. And to
25 be clear, the NRC has resolved the safety matter

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1 raised by Petitioners, even if they disagree with that
2 outcome.

3 But this SLR proceeding is not the proper
4 forum for a challenge to that CLB safety issue.

5 In sum, Duke respectfully submits that
6 both the Waiver Petition and the hearing request
7 suffer from these fundamental flaws, and thus the
8 Board should deny both. And with that, I will be
9 happy to take any specific questions that the Board
10 may have after the Staff's presentation. Thank you.

11 CHAIRMAN BOLLWERK: Thank you, sir. Let's
12 turn then to the NRC Staff, please.

13 MS. WOOD: Thank you, Your Honor, and good
14 afternoon. As I mentioned earlier, my name is Mary
15 Frances Wood and I represent the NRC Staff in this
16 matter.

17 Before I begin with the NRC's opening, I
18 would like to briefly touch on a few issues that were
19 raised by the Petitioner.

20 First, there is not an adequate protection
21 issue at Oconee. If there were, the NRC would not
22 have allowed it to continue to operate the site.

23 Secondly, the Petitioners conflate safety
24 and environmental reviews. Notably, the ADA does not
25 undermine the NRC's duty to comply with the

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1 responsibility under NEPA.

2 Next, I would like to turn first to the
3 Petition for Waiver in this matter. The Petitioners
4 have not made a prima facie showing that supports
5 obtaining a waiver, and has not met any of the four
6 Millstone factors.

7 As is well-established, all four factors,
8 which are stringent by design, must be met. If a
9 presiding officer determines the Petitioner has not
10 made a prima facie showing, the presiding officer
11 cannot further consider the matter.

12 For the first factor, Petitioners must
13 show strict application of the rule it seeks to waive
14 would not serve the purpose for which it was adopted.

15 The crux of the Petitioners' argument here
16 is that by not granting the Petitioners' waiver to
17 challenge Category 1 finding, it would be barring the
18 consideration of new and significant information, in
19 contravention of NEPA.

20 However, the NRC is required to consider
21 new and significant information in its environmental
22 impact statement, according to NRC's regulation.

23 As a result, regardless of the outcome of
24 this proceeding, the NRC staff must consider new and
25 significant information in its environmental review.

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1 The Petitioners, therefore, have failed to
2 demonstrate that applying the rule that excludes
3 Category 1 issues from consideration in this
4 proceeding, would prohibit consideration of new and
5 significant information, and have not met the first
6 factor.

7 The Petitioners also appear to assert that
8 there is a deficiency in Duke's Environmental Report,
9 and offer an alternative input as to how the SAMA
10 analysis could be performed.

11 In essence, the Petitioners are arguing
12 that Duke must perform a new SAMA analysis as part of
13 its license renewal, to account for the purportedly
14 new and significant information that is being offered
15 by the Petitioners.

16 However, for plans that have already
17 conducted a SAMA analysis, it has the functional
18 equivalent of being a Category 1 issue, and the
19 Commission has excluded Category 1 issues from
20 adjudication, by rule.

21 In order to challenge this rule,
22 Petitioners must demonstrate not that there are other
23 ways of conducting a SAMA analysis, but rather that
24 the SAMA analysis and the application has a
25 potentially significant deficiency that could credibly

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1 render the analysis unreasonable under the NEPA
2 standards.

3 Here, Petitioners have failed to do that,
4 and challenge the previous SAMA analysis by really
5 offering another input or methodology that could have
6 been used in the SAMA analysis.

7 Accordingly, Petitioners do not meet the
8 first Millstone factor. I note that on page 34 of the
9 NRC Staff answer, the reference to Contention 1 should
10 be Contentions 2 and 3.

11 Moving to the second factor, the
12 Petitioners must identify that special circumstances
13 exist but were not considered in the rulemaking
14 proceeding leading to the rule sought to be waived.

15 Petitioners' argument here pertains to the
16 current operating status of the facility.
17 Specifically, the external flood hazards permit
18 potential failure of the Jocassee Dam.

19 External flood hazards are appropriately
20 considered, and certainly have been considered, as
21 part of the ongoing oversight of Oconee's operations,
22 not as part of a license renewal proceeding.

23 More importantly, consideration of
24 protecting against a failure of the Jocassee Dam is
25 known. This can be seen, for example, through the NRC

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1 Staff's extensive engagement on the Jocassee Dam since
2 at least 2010.

3 For example, in 2016 the NRC staff stated
4 in an assessment, that the licensee's 2015 submittal
5 concluded the potential for hydrologic, seismic, and
6 sunny-day failures of Jocassee Dam, plus the
7 licensee's submittal in 2010 also considered the
8 potential for sunny-day failure.

9 Accordingly, the Petitioners do not show
10 that the external flood hazard from a possible failure
11 of the Jocassee Dam is a special circumstance not
12 previously considered.

13 The Petitioners must also identify
14 circumstances unique to the facility, rather than a
15 common by class of facility, with the third Millstone
16 factor.

17 At bottom, the Petitioners' argument is
18 that Duke considered site-specific information unique
19 to Oconee in its SAMA analysis.

20 However, SAMA analysis requires, by its
21 nature, a site-specific analysis. Therefore, to the
22 extent that Petitioners are arguing that unique
23 circumstances exist because information specific to
24 Oconee was used in its SAMA analysis, this argument
25 could be lodged against any site that conducted a SAMA

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1 analysis. Therefore, the Petitioners do not meet the
2 third Millstone factor.

3 Lastly, the Petitioners must demonstrate
4 that a waiver of the regulation is necessary to reach
5 a significant safety or environmental problem. The
6 Petitioners appear to challenge Oconee's compliance
7 with existing requirements, pointing specifically to
8 measures deemed necessary by the NRC related to the
9 impact of flooding from a potential failure of the
10 Jocassee Dam. These types of challenges are outside
11 the scope of license renewal.

12 Accordingly, the Petitioners have failed
13 to meet the fourth factor. Therefore, Petitioners
14 have not made a prima facie showing, and the Petition
15 for Waiver should be denied.

16 Alternatively, should the Board determine
17 that the Petitioners have made a prima facie showing,
18 the Petitioners' proposed Contingencies 2 and 3 do not
19 meet NRC's requirements for contention admissibility.
20 Per the Board's Order, the NRC Staff will not address
21 Contention 1 in this opening statement.

22 NRC's contention admissibility standards
23 are strict by design. And for contentions to be
24 admissible, Petitioners do bear the burden of meeting
25 all of the requirements.

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1 Here, the Petitioners have not provided
2 admissible contention, because they raise issues that
3 are outside the scope of subsequent license renewal
4 proceeding, insomuch that the issues pertain to the
5 current operating status of the facility, rather than
6 issues appropriate for consideration of license
7 renewal application.

8 They do not raise an issue to the findings
9 the NRC must make, and there are issues that do not
10 create a genuine dispute with the application.

11 Before I begin, we do address the
12 Petitioners' arguments jointly, and have proofed the
13 arguments accordingly, just given the overlap and
14 incorporation by reference of Contention 2 into
15 Contention 3.

16 First, I'd like to highlight just a few
17 key points regarding Petitioners' assertion of new and
18 significant information.

19 Notably, Petitioners claim that Duke's
20 risk analysis of a random sunny-day failure at
21 Jocassee Dam is wrong, and that Duke failed to
22 consider seismically-induced dam failure and dam
23 overtopping.

24 The NRC's regulations require that
25 environmental reports must contain an analysis of any

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1 new and significant information regarding the
2 environmental impacts of license renewal, of which the
3 Applicant is aware.

4 The NRC Staff provides guidance in
5 Regulatory Guide 4.2, as to what constitutes new and
6 significant information.

7 Additionally, as I mentioned earlier, the
8 NRC Staff is required to consider new and significant
9 information, regardless of the outcome of the
10 proceeding, as part of its environmental review.

11 And most importantly, the public has the
12 opportunity to raise issues with the draft
13 supplemental environmental impact statement during the
14 public comment period, as part of the NRC's NEPA
15 process.

16 Accordingly, dismissing the contentions,
17 or not granting the waiver, does not preclude the
18 consideration of new and significant information.

19 The Commission has previously established
20 that for a petitioner to litigate, for example, a
21 contention asserting an inadequate SAMA analysis, the
22 petitioners must show that there is such a potentially
23 significant deficiency in the analysis, that it could
24 credibly render the SAMA analysis unreasonable under
25 the NEPA standards.

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1 Moreover, it is necessary to show that the
2 alternative information would have a significant
3 impact on the environmental analysis. Otherwise, as
4 the Commission has previously indicated, there will
5 always be ways to think of another input or
6 methodology that could be used in the SAMA modeling,
7 and that many different inputs and different
8 approaches may all be reasonable choices.

9 The new and significant information to
10 which Petitioners refer appears to be the Petitioners'
11 expert's calculation of an alternative CDF, or core
12 damage frequency.

13 The Petitioners state generally that its
14 failure to account for this information is profoundly
15 significant because a significant flooding event at
16 Jocassee would inevitably lead to a containment
17 failure and a core-melt accident.

18 In light of the Staff's engagement since
19 2010 with Oconee on its flood hazard analysis, which
20 specifically included consideration of Duke's overall
21 strategy to mitigate the risks associated with a
22 potential failure of the Jocassee Dam, the Petitioners
23 have not shown how the SAMA analysis of Oconee is
24 unreasonable. Rather, Petitioners simply desire for
25 more analysis to be done.

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1 The information provided by the
2 Petitioners does not present a seriously different
3 picture of the environmental impact of the proposed
4 action from what was previously envisioned.

5 As the information offered is not new and
6 significant, Petitioners have failed to raise an issue
7 that is material to this licensing action, or raise a
8 material dispute with the application.

9 Additionally, the Petitioners' arguments
10 attempt to erroneously conflate a safety concern with
11 an environmental impact under NEPA.

12 Specifically, Petitioners' assertion about
13 the licensing-supported failure to consider
14 seismically-induced dam failure and dam overtopping
15 concerns goes to current ongoing operations of Oconee.

16 Notably, the Petitioners' expert even
17 indicates that NRC's regulations for a license renewal
18 excluded from the scope of safety issues that may be
19 reviewed, because it does not relate to the aging of
20 Oconee's safety equipment.

21 However, the NRC must also review Duke's
22 SLR application under NEPA, which requires the NRC to
23 fully evaluate the environment impact of its proposed
24 actions, including the environmental impact of
25 recently foreseeable accidents. End quote.

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1 Petitioners are, in essence, asserting
2 that because their contentions purport to raise a
3 safety concern, that there would be, by that fact, a
4 new and significant information that would require the
5 NRC Staff to consider under its NEPA obligations.

6 While the Petitioners' argument are
7 couched in the context of an environmental concern, as
8 explained in the 2013 guide, flood hazards
9 considerations are considered safety-related, and fall
10 outside the scope of license renewal.

11 Specifically, a 2013 guide states that
12 flood protection issues are considered during site-
13 specific safety reviews, and are addressed to the
14 reactor oversight process, another NRC safety program
15 separate from the license renewal process.

16 At bottom, as the Petitioners' arguments
17 go directly to a currently operating condition at
18 Oconee, which is addressed through NRC's ongoing
19 oversight of the site's operation, it necessarily
20 falls outside the scope of license renewal, is not
21 material to findings the NRC must make in its
22 licensing action, and therefore, the Petitioners fail
23 to raise an issue of genuine dispute with the
24 application.

25 Accordingly, this aspect of the

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1 contentions must be denied.

2 Next, I'd like to turn to Petitioners'
3 assertion that Duke failed to address the safety and
4 environmental significance of the NRC's 2011 safety
5 evaluation in its Environmental Report.

6 In sum, the Petitioners assert that Duke
7 failed to implement certain measures in the NRC's 2011
8 safety evaluation, specifically as it relates to
9 protecting against a sunny-day failure of the Jocassee
10 Dam.

11 Again, issues related to current
12 operations of the plant are outside the scope of a
13 subsequent license renewal proceeding.

14 Here, the Petitioners' argument falls
15 squarely under the current operating status of the
16 plant, that these issues are appropriate addressed
17 under the Staff's ongoing regulatory oversight
18 activity.

19 The 2013 guide explicitly indicates that
20 issues related to flood protection are considered
21 during site-specific safety review. These are
22 separate from the license renewal process.

23 Accordingly, to the extent that
24 Petitioners are arguing that Duke is not meeting
25 requirements under its license, they raise issues

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1 related to current operation of the plant.

2 These are outside the scope and are not
3 material to the finding that the NRC must make in a
4 subsequent license renewal proceeding, and
5 consequently do not show that a genuine dispute
6 exists.

7 Next, I'll address the Petitioners'
8 argument that the Environmental Report fails to
9 consider additional mitigative measures that
10 Petitioner expert identifies.

11 Petitioners argue that Duke failed to
12 consider three additional mitigative measures that
13 would lower the flood impact at Oconee.

14 However, Petitioners (audio interference)
15 to deficiencies in the application, not just
16 suggestions of ways an analysis could have been done
17 and details that could have been included.

18 Petitioners broadly state these three
19 mitigative measures are obviously to reduce flood
20 hazards from Oconee, but never explain the basis for
21 these assertions, or how they paint a different
22 picture from what was previously analyzed.

23 Furthermore, these negative measures do
24 not support Petitioners' environmental challenge,
25 since the NRC's review of flood hazards are evaluated

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1 and addressed as safety issues, and thus on an ongoing
2 basis through NRC's oversight process.

3 Therefore, this -- contention 3 should be
4 rejected, because it is out of scope of this license
5 proceeding, because flood hazards are addressed in
6 NRC's ongoing oversight activity, and not material to
7 the findings NRC must make.

8 And so, Petitioners fail to demonstrate a
9 genuine dispute with the application.

10 Lastly, I would like to turn just quickly
11 to the Petitioners' reply, which includes new proposed
12 arguments that exceed the permissible scope of a
13 reply.

14 A reply may not be used as a vehicle to
15 introduce new argument to support, to expand the scope
16 of arguments set forth in the original petition, or to
17 cure an otherwise deficient petition.

18 Contrary to Commission practice and
19 regulation, Petitioners reply contains new arguments
20 that impermissibly challenge the adequacy of the NRC
21 Staff's 2018 safety assessment related to the focused
22 flood evaluation for Oconee.

23 Petitioners newly argue that the NRC's
24 2018 Staff assessment's conclusion related to Duke's
25 flood-focused evaluation for Oconee is invalid because

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1 the Staff's use of an analytical input in their 2018
2 Staff assessment is purportedly erroneous.

3 However, Petitioners impermissibly attack
4 the adequacy of the NRC's safety assessment. The
5 adequacy of the Staff's safety review is not an
6 appropriate issue for contention admissibility, as it
7 does not meet the requirement that the contention must
8 demonstrate a material issue with the application.

9 Furthermore, Petitioners newly argue that
10 Duke violated a NEPA requirement for documentation and
11 transparency by failing to document or even identify
12 a purported PRA update -- a probabilistic risk
13 assessment update.

14 Assuming Petitioners are referring to a
15 deficiency in Duke's Environmental Report, insomuch as
16 it was devoid of any quantitative information or
17 reference number for an updated PRA, this constitutes
18 a new argument and it's outside the scope of a reply
19 brief.

20 Accordingly, for the aforementioned
21 reasons, the Petitioners' waiver request should be
22 denied and the proposed contentions be found
23 inadmissible. Thank you for your time.

24 CHAIRMAN BOLLWERK: All right, thank you
25 very much. Ms. Curran, we're just about at 2 o'clock.

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1 You have about ten minutes.

2 MS. CURRAN: Judge Bollwerk, could I ask
3 for a ten-minute break before I go? I want to go over
4 the arguments and figure out what I'm going to say,
5 and I also want to take a bathroom break.

6 CHAIRMAN BOLLWERK: All right, we'll go
7 ahead and do that. Just so know, however, once you're
8 done with your reply, we'll go right into questions
9 then.

10 MS. CURRAN: Fine. Thank you.

11 CHAIRMAN BOLLWERK: So, we'll come back,
12 let's say at 2:15.

13 MS. CURRAN: Great. Thank you

14 (Whereupon, the above-entitled matter went
15 off the record at 1:59 p.m. and resumed at 2:15 p.m.)

16 CHAIRMAN BOLLWERK: It's about 2:15, and
17 we're back from our break. And we -- the next order
18 of business is to hear Ms. Curran's rebuttal.

19 MS. CURRAN: Thank you very much. I want
20 to respond to a couple of points made by Mr. Lighty
21 and Ms. Woods.

22 First, Mr. Lighty said that the 2010 CAL
23 was resolved and closed, and closed out by the post-
24 Fukushima review. But it seems telling that neither
25 Mr. Lighty nor Ms. Woods takes the opportunity to

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1 identify any language in any NRC post-Fukushima review
2 document that says, we now find that the measures that
3 have been taken in response to the flood review we
4 requested after the Fukushima accident -- that those
5 measures provide a reasonable assurance of adequate
6 protection of public health and safety.

7 It's not there. It's not in what Counsel
8 said. It's not in any document. And the NRC in the
9 license renewal GEIS makes a point of saying we're not
10 relying on the post-Fukushima review. It wasn't
11 finished at that point. The only thing that's not
12 related to NEPA that they say they rely on is the
13 Atomic Energy Act-based safety reviews.

14 And, of course, safety evaluations are
15 critical documents in those safety reviews. That is
16 where, as we see from NUREG-1409, a document cited by
17 Duke -- this is where the NRC says what is required to
18 achieve adequate protection.

19 And once the NRC technical staff says
20 that, when that finding is made, something has to be
21 done to either fulfill it or repudiate it. Didn't
22 happen here. And the Fukushima review is irrelevant.

23 The next point I want to make is Ms. Woods
24 said that we're just -- all we're doing is providing
25 an alternative analysis. Just, you know, you could do

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1 the SAMA analysis this way. You could do it that way.
2 It's all kind of the same. But that's not true. That
3 is not a correct characterization of our case.

4 And the standard which is presented in the
5 Pilgrim case is we needed to show a deficiency that
6 credibly could render the SAMA analysis unreasonable
7 under NEPA standards. If the potential for a core-
8 melt accident increases significantly, that changes
9 what the SAMA analysis is going to look like because
10 all of a sudden, SAMA's measures that were previously
11 deemed not cost effective are going to start to look
12 cost effective because the risks that they're
13 offsetting and the costs that they're offsetting are
14 bigger.

15 This is -- we have met that standard.
16 This is not just, oh, there's another way to do this.
17 And we did that -- we -- we did that with a --
18 qualitatively, with a discussion of the 2011 safety
19 evaluation, and we did it quantitatively with the
20 estimates that Mr. Mittman provided.

21 And finally, Mr. Lighty said that the
22 information that we rely on, which included a 2010
23 study, the generic dam study, and other documents --
24 that that information was not new because it didn't
25 postdate the 2013 GEIS.

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1 And I -- I guess a couple points. The
2 most important thing that we needed to do was show the
3 information was not considered in the license renewal
4 GEIS, and the fact that it -- it might have come
5 before that is not really relevant.

6 The NEPA requires the NRC to assess
7 environmental impacts, and it's not a trick process
8 where if something was overlooked in 2013 and you
9 realized it was overlooked later on, well, you've
10 waived your chance to have it addressed.

11 The point is to address what are
12 particularly significant impacts. But, more
13 importantly, the NRC said in the 2013 GEIS that they
14 took another look at external events. They did that
15 before the March 2011 Fukushima accident.

16 If they had looked at Oconee -- and maybe
17 they did -- they would have seen that the NRC and Duke
18 were engaged in conversations and correspondence about
19 a potential -- a significant safety issue at Oconee,
20 and they would have seen that in a safety evaluation,
21 the NRC said, Duke, you must do X measures. You must
22 take X measures in order to provide an adequate
23 protection of public health and safety.

24 And there was no indication in the 2011
25 safety evaluation that Duke was refusing to take these

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1 measures. The safety evaluation talks about a
2 schedule that they have that Duke's going to do it.
3 So the NRC would have looked at that and said, well,
4 our safety processes are working; this is not a
5 significant environmental issue for us because we can
6 have confidence that the safety process works here.

7 And, of course, it was only after Duke
8 responded to the post-Fukushima order, the 50.54(f)
9 order, that it started to become clear that Duke
10 wasn't going to fulfill the terms of the 2011 safety
11 evaluation. If the NRC had taken a look at that
12 situation, they might have had a very different view
13 of external events.

14 I think I will stop there.

15 CHAIRMAN BOLLWERK: All right. Thank you.

16 Let's go ahead, then, and move to Board
17 questions.

18 And, Ms. Wood, if you could, maybe you can
19 move just a hair closer to the microphone when you're
20 answering/responding. We want to make sure that we
21 hear you clearly.

22 MS. WOODS: Yes, Your Honor. Will do.

23 CHAIRMAN BOLLWERK: Thank you. So just,
24 Ms. Woods, let's start with the last point that Ms.
25 Curran made. How does the staff respond to that? I

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1 mean, there seems to be this question about what the
2 GEIS did and didn't consider, at least in terms of
3 what's been going on with Oconee.

4 MS. WOODS: Of course, Your Honor. So, as
5 it relates to what the NRC staff considers for the
6 GEIS, it is a living and breathing document.
7 Basically, what the staff does is that it takes
8 lessons learned and other information that it has
9 acquired through its ongoing reviews and subsequent
10 license renewals and different license renewal
11 proceedings and consider those as part of its analysis
12 as to the current findings that are in the GEIS.

13 As it relates specifically to Oconee, for
14 the GEIS update, the previous GEIS before the 2013 one
15 was done in 1996. So the information that would be
16 incorporated into the 2013 GEIS was, in practice,
17 those lessons learned that were taken from 1996 up
18 until the issuance of the 2013 GEIS.

19 And, to that extent, the nature of the
20 information that the staff would have considered are
21 those pieces of information that would have risen to
22 such a level that it would have potentially challenged
23 the NRC staff's current findings as it relates to the
24 guidance.

25 CHAIRMAN BOLLWERK: So you're saying that

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1 by implication, what was going on at Oconee was taken
2 into account by the staff in the GEIS?

3 MS. WOODS: In terms of the -- the NRC
4 staff's review does not look at every single piece of
5 information for every single site for every issue.
6 So, as I stated, the general nature of the review is
7 to take those pieces of information that were
8 significant -- rose to the level of significance
9 enough to potentially challenge the staff's previous
10 findings as it relates to those that are identified in
11 the guide.

12 CHAIRMAN BOLLWERK: All right.

13 Mr. Lighty, anything you want to say on
14 the subject?

15 MR. LIGHTY: Yes, Your Honor, just very
16 briefly. You know, I -- I fully agree with Ms. Curran
17 that in order to raise an NSI contention, you have to
18 show that there is some information that was not
19 considered in the GEIS.

20 But the petition did not engage with the
21 GEIS. The petition has omitted a discussion of the
22 baseline analysis in the GEIS to explain why it
23 doesn't cover the issue that they are trying to raise.
24 This is very similar to the North Anna proceeding,
25 where the Petitioners there purported to raise an

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1 issue related to a specific seismic event without
2 explaining why the GEIS generic analysis wasn't broad
3 enough to cover that specific event.

4 I believe a similar contention was raised
5 in the Diablo Canyon proceeding cited in our brief to
6 the same issue. So the issue here is Petitioners
7 haven't engaged with the GEIS and explained why the --
8 for this particular event that they're discussing.

9 And to address what Ms. Curran said about
10 the timing of the reports and whether they were
11 considered in the GEIS based on what year they were
12 issued, Ms. Curran argued that you haven't waived the
13 chance to address information that predates the
14 issuance of the GEIS.

15 But that is exactly what you have done
16 when the NRC made a decision to codify those findings,
17 offer a notice and comment making, provide the public
18 with an opportunity to comment on those findings,
19 before codifying them into law.

20 The NRC by design precludes challenges
21 after the fact as a matter of efficiency, as a matter
22 of resolving issues generically. And that's exactly
23 what's happened here. The opportunity to challenge
24 those pre-GEIS documents has long since expired.

25 CHAIRMAN BOLLWERK: All right. Just for

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1 the information of those that are listening, when we
2 talk about the GEIS, we're talking about a generic
3 finding, correct? But then there will be -- in this
4 case, as there has been previously for your initial
5 renewal, there will be a supplement to the GEIS that
6 covers Oconee specifically based on your environmental
7 report. That's correct, isn't it?

8 MR. LIGHTY: Yes. Yes, that's correct.
9 The GEIS will be coupled with any new and significant
10 information in the environmental report, any raised by
11 the public in comments through the public comment
12 opportunity, any new and significant information
13 identified by the staff, and put in their draft and
14 final EIS.

15 CHAIRMAN BOLLWERK: All right. Ms.
16 Curran, what would you like to say on the subject?

17 I think you're muted.

18 MS. CURRAN: Yeah. Thank you. First of
19 all, our obligation in this hearing request was to
20 address the environmental report. And the
21 environmental report compares itself, compares its
22 findings, to the license renewal GEIS and says we're
23 looking to see if there's any new information that
24 would change the findings in the license renewal GEIS.

25 So we critiqued the environmental report's

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1 discussion of whether there was new and significant
2 information that would change the findings of the
3 license renewal GEIS. In our opinion, we did exactly
4 what the regulations required.

5 It's also very clear that the accident
6 probabilities that we're talking about here are way --
7 much higher than what the GEIS considers for severe
8 accidents. There's no question that the accident
9 probabilities estimated in Mr. Mittman's report are
10 far beyond what the license renewal GEIS expected for
11 severe accidents.

12 So I think we have more than satisfied the
13 standards. And then, as to this idea that the rule is
14 designed to unequivocally bar anyone from raising
15 information that may have come up before the 2013 GEIS
16 revision, that's what the purpose of the waiver
17 provisions are because NEPA -- the NRC has a lot of
18 discretion in rulemaking, and it can decide there's
19 common issues that can be evaluated in a generic EIS.

20 But it can't cast that in concrete,
21 because NEPA requires that for every single licensing
22 action, the Government has to satisfy itself that it
23 looked at the potential impact. And if someone can
24 show that there's an impact that wasn't considered in
25 a previous EIS that's being relied upon, then the

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1 Agency has to look at it.

2 That is a statutory requirement that the
3 NRC can't avoid by promulgating a rule.

4 CHAIRMAN BOLLWERK: All right. Thank you.

5 (Simultaneous speaking.)

6 CHAIRMAN BOLLWERK: Oh, go ahead.

7 JUDGE ARNOLD: I have a closely related
8 question. This is Judge Arnold. Now, if you look at
9 the current GEIS, it says that the generic
10 environmental impacts of severe accidents were
11 assessed based upon analysis performed at 28 nuclear
12 power plants as listed in Table 5.1 of the 1996 GEIS.

13 Now, I noticed that Oconee is not on that
14 list. Let me ask staff. Do you know if any of those
15 28 nuclear power plants that were used for that
16 assessment were downstream of a dam?

17 MS. WOODS: Sorry, Your Honor. I was
18 coming off mute. It's possible. I would like to
19 consult with the NRC staff to be able to get you a
20 correct answer in terms of the status.

21 JUDGE ARNOLD: Please do.

22 (Pause.)

23 MS. WOODS: Thank you, Judge Arnold. In
24 response to your question, the answer is that no, none
25 of the sites were specifically downstream from a dam,

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1 but they were taken as a representative sample.

2 JUDGE ARNOLD: But there was nothing that
3 represented the situation that Oconee is in, correct?
4 I mean if none of them were downstream of a dam.

5 MS. WOODS: To the extent that the 28
6 plants were not downstream from a dam, that is
7 correct.

8 JUDGE ARNOLD: Okay. Thank you. That's
9 all I had on that.

10 MS. WOODS: Thank you, Judge Arnold.

11 JUDGE ARNOLD: All right. Since Judge
12 Arnold sort of introduced a new thought into this, let
13 me turn to Mr. Lighty briefly and see if he has any
14 response to that point.

15 MR. LIGHTY: Thank you, Your Honor. Just
16 very briefly, I also did not know the answer to that
17 question off the top of my head. I certainly would
18 have researched it had Petitioners raised it in the
19 petition.

20 But, again, I think that that reinforces
21 the lack of engagement with the GEIS analysis in the
22 petition. And, in fact, Ms. Curran's statement just
23 a moment ago that the accident probabilities that they
24 are calculating using bounding and worse-case inputs
25 are much higher than what's found in the GEIS, I think

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1 that may be the first engagement with the GEIS on that
2 topic that we've heard so far in this proceeding. It
3 certainly wasn't presented in the petition.

4 JUDGE ARNOLD: Let me just quote from the
5 petition, page 21, paragraph 3. No GEIS addresses the
6 environmental impacts of operating a reactor in the
7 shadow of a large dam.

8 And that was part of their explanation of
9 circumstances that were not previously considered
10 unique to Oconee. It was brought up.

11 MR. LIGHTY: Yes, Your Honor, that is a
12 statement that is in the petition. I don't think it
13 goes to the probabilities explicitly that I was
14 speaking of in terms of Ms. Curran's prior statement.

15 But, again, I want to point back to the
16 GEIS conclusion on this issue. It doesn't get as
17 granular in its conclusion about specific external
18 events and the conclusions that result from those
19 specific internal -- external events.

20 In fact, the GEIS conclusion is that
21 applicants do not need to analyze external events
22 because the internal events analysis is sufficient to
23 allow the NRC to draw its generic conclusion.

24 JUDGE ARNOLD: Okay. Thank you, Judge
25 Bollwerk, for allowing me to step in.

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1 CHAIRMAN BOLLWERK: Oh, absolutely. Thank
2 you. I -- the subject matter was raised, and I
3 appreciate you asking your question.

4 Let me just see if Ms. Curran has anything
5 to say on this point, given what Judge Arnold has
6 raised.

7 (Pause.)

8 CHAIRMAN BOLLWERK: I believe she's
9 consulting with the individuals that are there to
10 assist her. Is that correct?

11 MS. CURRAN: To our understanding, there's
12 no power plant that is located as close to a large dam
13 as Oconee is. So it is an usual situation.

14 CHAIRMAN BOLLWERK: All right. Anything
15 further?

16 MS. CURRAN: No.

17 CHAIRMAN BOLLWERK: All right. Let me go
18 back to Ms. Wood, then, just to sort of close this
19 out, I think.

20 Anything further you want to say on the
21 subject, given what you've heard from Mr. Lighty and
22 Ms. Curran?

23 MS. WOODS: Thank you, Your Honor, for the
24 opportunity. The only thing I would like to point out
25 is that as part of the GEIS process, we do issue the

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1 supplemental environment statement that is specific to
2 the individual sites. And I would like to point out
3 that in the original environmental impact statement
4 for Oconee, they did evaluate the dam.

5 Thank you, Your Honor.

6 CHAIRMAN BOLLWERK: I thought you were
7 referring to the original licensing of the plant.

8 MS. WOODS: Let me consult. I believe
9 it's for the initial license renewal.

10 CHAIRMAN BOLLWERK: The initial license --
11 okay. I'm sorry.

12 (Simultaneous speaking.)

13 MS. WOODS: -- initial license renewal of
14 the site.

15 CHAIRMAN BOLLWERK: Right.

16 MS. WOODS: Thank you, Your Honor.

17 CHAIRMAN BOLLWERK: All right. Thank you.
18 Let me ask one other question of you, and then I think
19 we'll turn to Judge Trikouros because I think he has
20 some things he'd like to talk with the participants
21 about.

22 So let me, just by way of background,
23 mention a couple things. I think we're going to be
24 talking today about the January 28th, 2011, staff
25 document that's ADAMS Number ML110280153, probably the

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1 April 14th, 2016, staff document, which is ML153 --
2 sorry, 15352A207, and probably the June 18th, 2018,
3 staff document, which is ML18141A755. Those are all
4 publicly available documents.

5 As a -- probably a legal and a logical
6 matter, things that have different titles are
7 probably, arguably, different kinds of documents. And
8 if they use different wording, then there's probably
9 some significance to that as well.

10 And, sort of going to Ms. Curran's point,
11 I mean, the cover letter for the January 2011 document
12 -- the cover letter talks about it as a staff
13 assessment, but then the report's entitled a safety
14 evaluation, as opposed to the 2016 and 2018 documents,
15 where everything's called a staff assessment, both the
16 cover letters and the reports themselves.

17 What is the significance of the term
18 safety evaluation that was attached to the 2011
19 report?

20 MS. WOODS: Thank you for that question,
21 Your Honor. Regarding the distinction between staff
22 assessment and staff evaluation, while they do carry
23 different titles, the technical rigor associated with
24 the evaluation is equivalent as it relates to the
25 safety evaluation. These typically provide the

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1 technical safety and legal basis for decisions related
2 to a -- like a licensing action or a license amendment
3 request.

4 But, importantly, the NRC staff safety
5 evaluations are not part of the licensing basis. But
6 at the heart of the matter, as it relates to the
7 actual technical rigor that would go into the staff
8 assessment and the staff safety evaluation, those are
9 comparable.

10 CHAIRMAN BOLLWERK: Again, as Ms. Curran
11 has pointed out, certainly, if you look at page 2 of
12 the April 2011 report, which is page 13 of the company
13 safety evaluation, the staff states that the
14 unmitigated Case 2 dam breach parameters that were
15 used in the flooding models provided by Duke for the
16 Oconee site demonstrated the Licensee has included
17 conservatisms of the parameters utilized in the dam
18 breach scenario.

19 These conservatisms provide the staff with
20 additional assurance that the above Case 2 scenario
21 will bound the inundation of Oconee, therefore
22 providing reasonable assurance for the overall
23 flooding scenario of the site. This new flooding
24 scenario is based on the random sunny-day failure of
25 the Jocassee Dam. This Case 2 scenario will be the

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1 new flooding basis for the site.

2 So there we have some language that talks
3 about reasonable assurance and also basis, which sort
4 of gets to a licensing basis, potentially, of the
5 facility. But you don't really see that type of
6 language used in either the 2018 or the 2016 reports.

7 And I should mention also that in the 2015
8 or the -- I'm sorry, the 2016 report includes a sort
9 of comparison of what happened in 2010 and also 2015
10 relative to the Duke submissions that were the basis
11 for the reports, and makes the point again that at
12 least in 2010, there was a finding of reasonable
13 assurance.

14 I'm sort of -- it says, provided a
15 reasonable assurance that flood inundation levels at
16 the site would not exceed water surface elevations
17 predicted by the Licensee. That's at page 2 of the
18 addendum to the April 2016 report.

19 So there does seem to be this sort of use
20 of the term, reasonable assurance, in 2010, but you
21 don't see it in 2011. But you don't see that again in
22 2016 and 2018. What's the significance of that?

23 MS. WOODS: Your Honor, may I have just a
24 minute to consult with the staff?

25 CHAIRMAN BOLLWERK: Surely.

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1 MS. WOODS: Thank you, Your Honor.

2 (Pause.)

3 MS. WOODS: Thank you for your patience,
4 Your Honor.

5 CHAIRMAN BOLLWERK: Surely. Not a
6 problem.

7 MS. WOODS: In regards to the 2011 --
8 safety evaluation here, that is in response to a
9 confirmatory action letter. And if you look at the
10 2016 staff assessment and the 2018 assessment, those
11 are responses to 50.54(f) letters, which are a request
12 for information. So they're responding to two
13 different types of actions.

14 CHAIRMAN BOLLWERK: So your response,
15 then, is the fact that the 2011 one dealt -- that was
16 dealing with a CAL, and the 2016 and 2018 ones were
17 basically dealing with RAIs -- that's the difference
18 in the language, then, in terms of use of reasonable
19 assurance?

20 MS. WOODS: That is correct, Your Honor.

21 CHAIRMAN BOLLWERK: Okay.

22 Mr. Lighty, anything you want to say on
23 that subject?

24 You're muted, I think, or you're fading in
25 and out, one of the two.

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1 MR. LIGHTY: All right. Yes. Just very
2 briefly, Your Honor. So we don't see any support, any
3 documents cited in the petition that support a claim
4 that there is some meaningful regulatory difference
5 between the different ways that the assessments were
6 captioned.

7 And to take this back a step further to
8 reasonable assurance, when a 54(f) letter is issued,
9 the purpose of that is to allow the Commission to
10 decide whether it is going to revoke, suspend, modify
11 a license. In other words, the Commission may impose
12 a backfit if it determines that there is a reasonable
13 assurance issue.

14 Neither the end results of the CAL process
15 or the Fukushima process resulted in a backfit. It
16 seems that the Petitioners are claiming they want a
17 backfit, that there should have been a backfit, that
18 the CAL should not have been closed out because they
19 would have preferred a reasonable assurance finding be
20 associated with the safety evaluation.

21 The staff did not undertake the backfit.
22 And so, you know, to the extent Petitioners are
23 suggesting that merely the appearance of the words
24 reasonable assurance in a safety evaluation imposes
25 some legal obligation, that's -- that's contrary.

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1 The NRC needs to proactively initiate a
2 backfit in order to change the design basis of the
3 plant to make something a reasonable assurance issue.
4 That didn't happen. And the fact that these words
5 appear in one document certainly does not impose a
6 requirement on the Licensee.

7 CHAIRMAN BOLLWERK: All right. Thank you.

8 Ms. Curran, anything you want to say on
9 this subject?

10 MS. CURRAN: Yes. Thank you. Duke cited
11 the backfit guidance. It's not finalized, but it
12 certainly has reached a very high level of the
13 Commission, NUREG-1409, which I think is a revision to
14 something that is in place earlier that discusses the
15 role and the nature of safety evaluations.

16 And we discussed this in our reply, that
17 there are protocols and procedures for safety
18 evaluations. Safety evaluations have meaning under
19 the Atomic Energy Act. They are intended to set forth
20 the basis for NRC's adequate protection findings. And
21 it may be that a safety evaluation leads to a backfit.
22 And there certainly was a draft fact and analysis in
23 the case of Oconee.

24 But whether or not it gets to that, once
25 the staff makes that determination -- and this is a

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1 determination that the plant shouldn't operate unless
2 these minimal conditions are met. Once the staff
3 makes that determination under the Atomic Energy Act
4 and NRC implementing regulations, it can't be
5 discarded. It can't be swept under the rug, which is
6 what seems to be attempted here.

7 It is an outstanding safety determination
8 as to what is required in order to satisfy the Atomic
9 Energy Act and NRC safety regulations. And there is
10 no document that anyone's pointed out that says what
11 a staff assessment is supposed to do, and it certainly
12 -- we don't see any staff assessment in this record
13 that is used to address reasonable assurance issues.

14 That role is played by safety evaluations.
15 That's a higher-level document in terms of showing or
16 questioning Atomic Energy Act compliance. It's a
17 significant document. Once a safety evaluation is
18 prepared and issued, there's even protocols for if --
19 if something's going to be done with it, what happens
20 next? It just can't be left hanging, which is what
21 happened here.

22 And Mr. Lighty says what we really want is
23 a backfit, and we're trying to use NEPA as a back door
24 to get a backfit. Now, the Petitioners know very well
25 from long years of experience that NEPA doesn't have

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1 substantive requirements, at least as the NRC
2 interprets it. NEPA is about disclosure and
3 evaluation of environmental impacts.

4 And of course Petitioners would like to
5 get a backfit. But if they can't get the backfit,
6 they could at least get an environmental impact
7 statement and an environmental report that identifies
8 this as an outstanding environmental and safety issue.
9 And safety issues are environmental issues.

10 It's the human environment that NEPA was
11 designed to protect. We are entitled to a discussion
12 of what are the environmental impacts of Duke's
13 failure to satisfy those conditions that were set out
14 in the 2011 safety evaluation, because the license
15 renewal GEIS is assuming that if there was a safety
16 evaluation, it was dealt with appropriately under
17 NRC's practices. And that didn't happen here.

18 CHAIRMAN BOLLWERK: All right. Thank you.

19 MS. CURRAN: Thank you.

20 CHAIRMAN BOLLWERK: Ms. Wood, I started
21 with you. Anything further you want to say on this
22 subject?

23 MS. WOODS: Yes, Your Honor. To clarify,
24 there is no adequate protection issue here. As the
25 NRC has clearly stated before, if there were an

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1 adequate protection issue, the NRC would not allow
2 Duke to continue operating the site.

3 And to the extent the Petitioners are
4 asserting that a safety evaluation is somehow weaker
5 in its technical rigor than a staff assessment, the
6 two documents, as we just discussed, really serve two
7 different purposes.

8 Here, you know, the safety assessment
9 really was going towards responding to a 50.54(f)
10 letter, and the other one was responding to a CAL.
11 And, to note, the safety evaluations tend to go to,
12 like, a license amendment request.

13 And so -- but the actual underlying
14 technical rigor of them is the same. And, again, just
15 to reiterate, there are no adequate protection issues
16 here. And to the extent the Petitioners are asserting
17 that Duke is not complying with a current condition of
18 its license, the purpose of the proceeding here is a
19 subsequent license renewal proceeding that are limited
20 to the scope of the aging management related
21 structures, systems and components as identified in
22 the regulations.

23 So the oversight of those current
24 conditions would fall outside the scope as covered
25 under the NRC's current regulatory oversight of

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1 Ocone.

2 Thank you, Your Honor.

3 CHAIRMAN BOLLWERK: So, just to clarify --
4 so you seem to be saying that -- you appear to be
5 agreeing with Mr. Lighty that because of the
6 difference in the documents that were being evaluated
7 or assessed or the situation term for the CAL versus
8 the RAI, that to call, for instance, the 2011 report
9 a staff assessment would have been incorrect; it had
10 to be called a safety evaluation, and vice versa? For
11 the 50.54 letter, it had to be called a staff
12 assessment; it could not have been called a safety
13 evaluation?

14 MS. WOODS: I'm sorry. If you could
15 clarify your question, Your Honor.

16 CHAIRMAN BOLLWERK: Sure. So, as I
17 understood it, Mr. Lighty's response was, well, this
18 was a CAL response, and therefore -- and I think I
19 heard the same thing from you -- it was called a
20 safety evaluation. It couldn't have been called a
21 staff assessment, then. It had to be called a safety
22 evaluation because of the nature of the document that
23 it was responding to -- or it was involved with may be
24 a better word.

25 MS. WOODS: They are different. But if I

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1 understand you, there needs -- in order to make a
2 change, there would be different mechanisms that would
3 be needed to make a change, depending if it was a
4 safety evaluation or a staff assessment in terms of
5 practice.

6 CHAIRMAN BOLLWERK: Right. So -- well,
7 let me flip the question, then. So a 50.54 RAI -- a
8 staff evaluation related to that would not be called
9 a safety evaluation. It would simply be called an
10 assessment. That would be inappropriate labeling if
11 you called it a safety evaluation. Or am I
12 misinterpreting what you're saying?

13 MS. WOODS: In terms of --

14 (Simultaneous speaking.)

15 CHAIRMAN BOLLWERK: Or does it make any
16 difference? Maybe it doesn't. That's what I'm trying
17 to find out.

18 MS. WOODS: Well, at the bottom, it really
19 boils down to the question of the technical rigor that
20 goes into the evaluation of the documents. And from
21 the NRC staff's perspective, the technical rigor
22 associated with a staff assessment and a safety
23 evaluation are the same.

24 The only distinction is that they serve
25 different purposes. The safety evaluation really just

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1 goes more towards licensing actions.

2 CHAIRMAN BOLLWERK: All right. Thank you.

3 Let's turn to Judge Trikouros because I
4 know he has a number of questions. I may have some
5 additional ones, and maybe -- I'm sure Judge Arnold
6 does as well. But let's let Judge Trikouros ask his
7 questions.

8 MS. CURRAN: Judge Bollwerk? Could I --

9 CHAIRMAN BOLLWERK: Yes?

10 MS. CURRAN: I'm sorry, but I would like
11 to interject --

12 CHAIRMAN BOLLWERK: All right.

13 MS. CURRAN: -- a comment or two before
14 you move on.

15 CHAIRMAN BOLLWERK: All right.

16 MS. CURRAN: I want to reiterate there's
17 no guidance or no document that has been pointed to us
18 as to what is the role and meaning of a staff
19 assessment. So when you were asking questions, does
20 a staff assessment go with this document or that
21 document, we can't find any guidance for how it's
22 supposed to be used, although there certainly is
23 guidance in NUREG-1409 for how a safety evaluation is
24 to be used.

25 Ms. Wood said a couple of times that

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1 there's no adequate protection issue here, or the
2 plant would be shut down. And I think she's mixing up
3 enforcement with adequate protection. The NRC makes
4 decisions certainly on a very fast basis as to whether
5 to let a plant keep operating.

6 But if you look at the correspondence that
7 went on between Duke and the NRC staff starting in
8 2008, the staff started saying to Duke, we're
9 concerned that you are not providing adequate
10 protection to public health and safety, and asking for
11 information. And Duke would send information. NRC
12 would ask for more.

13 And this went back and forth and back and
14 forth. The NRC had a concern that Duke was not
15 providing adequate protection from flooding at Oconee,
16 but it was exercising its discretion to wait until
17 Duke submitted the information it was looking for and
18 then reached some resolution, which was what the 2011
19 safety evaluation did. It said, we've now reached the
20 point where we find there's adequate protection --
21 reasonable assurance of adequate protection. And
22 here's why.

23 So, you know, the idea that if a plant is
24 operating, there's no adequate protection issue, that
25 just doesn't hold up. Yeah.

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1 CHAIRMAN BOLLWERK: All right. Mr.
2 Lighty, I don't want to cut you out of this
3 conversation. Why don't you go ahead and give us your
4 view of this?

5 MR. LIGHTY: Thank you, Judge Bollwerk.
6 Just very briefly, I would like to note that the 2010
7 CAL was actually a letter that came as part of a 2018
8 50.54(f) request from the NRC related to potential
9 adequate protection concerns that the NRC had that CAL
10 merely documented the commitments that Duke made as
11 part of that review process.

12 But the culmination of that process was
13 the NRC determined that there was no adequate
14 protection issue. They closed out the CAL based on
15 the analyses that were done. The alternative to
16 closing out the CAL was to initiate a backfit. The
17 NRC did not do that, and they used very unequivocal
18 language, noting that the CAL had been closed, noting
19 that the 2015 flood hazards reevaluation report was an
20 acceptable alternative means of complying with the
21 CAL.

22 There's no ambiguity in the regulatory
23 history of this proceeding. And we've spent the last
24 30 minutes, I think, talking about the procedural
25 nuances of NRC safety reviews, far afield from this

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1 SLR proceeding. But, again, the NRC made a decision
2 not to initiate a backfit because they found there was
3 no reasonable protection issue.

4 That's a conclusion that the regulatory
5 record clearly documents, and it can't be disputed
6 here.

7 CHAIRMAN BOLLWERK: All right. Ms.
8 Curran, I'll allow you one more chance, and then I'm
9 going to go back to Ms. Woods.

10 MS. CURRAN: There is no statement
11 anywhere that says there is no adequate protection
12 issue here. It is avoided discussing it. You will
13 not find one single statement that says the 2011
14 safety evaluation was mistaken; it was wrong. We've
15 changed our minds. Here's our new safety analysis for
16 adequate protection. Nothing.

17 This is like a pay no attention to that
18 man behind the curtain. The safety evaluation is out
19 there. It hasn't been repudiated. It cannot just
20 evaporate or disappear.

21 CHAIRMAN BOLLWERK: All right. Thank you.
22 Ms. Woods, anything further?

23 MS. WOODS: Nothing in particular to note,
24 Your Honor, other than that since 2010, as has been
25 noted throughout the record, that the NRC staff did

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1 engage extensively with Oconee on its flood hazards
2 protection but did culminate into the issuance of that
3 letter in 2020.

4 So just to note that there has been ten
5 years' worth of engagement with Oconee on this
6 particular matter. Thank you, Your Honor.

7 CHAIRMAN BOLLWERK: All right. Thank you.

8 All right. Judge Trikouros, I think you
9 have some questions.

10 I thank Counsel for their responses.

11 I think you may be muted.

12 JUDGE TRIKOUROS: Can you hear me?

13 CHAIRMAN BOLLWERK: Yes.

14 JUDGE TRIKOUROS: The original design
15 basis of Oconee, as I understand it, did not include
16 a Jocassee Dam failure as part of it. Is that
17 correct? So I'll ask that question to the staff.

18 Hello?

19 MS. WOODS: Apologies, Your Honor. In
20 terms of the original design basis for the site, my
21 understanding -- let me just confirm very quickly with
22 the staff.

23 My apologies, Judge Trikouros. Would it
24 be possible to consult with the NRC staff?

25 JUDGE TRIKOUROS: Sure.

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1 MS. WOODS: Thank you, Your Honor.

2 (Pause.)

3 MS. WOODS: Thank you for your patience,
4 Judge Trikouros. We can certainly take your question
5 down for the record and provide you with a response.

6 JUDGE TRIKOUROS: All right. That's fine.
7 But --

8 MR. LIGHTY: Your Honor, this is Ryan
9 Lighty, Counsel for Duke. I can confirm that the
10 original design basis for Oconee did not include a
11 flooding event from the Jocassee Dam.

12 JUDGE TRIKOUROS: Yeah. All right. And
13 that's basically my understanding, as well, that that
14 was the case. And so that the external flooding
15 design basis for the plant appears to have been some
16 probable maximum flood event, such as a limiting
17 precipitation event or some other flooding event, but
18 did not include the Jocassee Dam.

19 My question is what is the current
20 licensing basis of the plant with respect to external
21 flooding? Is it different than what it was originally
22 as a result of all these years of letters and
23 modifications that have been going on since the
24 original design basis was established? And I'd like
25 to ask that question to both the staff and the

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1 Applicants.

2 MR. LIGHTY: Yes, Your Honor. Ryan
3 Lighty. I can take the first attempt at this answer.
4 The design basis for Oconee has not changed since
5 original licensing. The Jocassee Dam failure flooding
6 event was not part of the original licensing basis.

7 The NRC issued the 2008 50.54(f) request
8 for information to evaluate whether a backfit was
9 necessary to add that to the design basis. That
10 resulted in the CAL process and the various analyses
11 that were done and the NRC's conclusion that a backfit
12 was not needed.

13 And then intervening in that is the
14 September 20th, 2012, letter from the NRC stating that
15 the CAL review process would be superseded by the
16 Fukushima 50.54(f) letter, which considered whether
17 all of the licensed power reactors in the plant needed
18 to amend their design bases to incorporate certain
19 events.

20 And the NRC eventually closed out that
21 process, concluding that the design basis for Oconee
22 did not need to be modified. So through two separate
23 50.54(f) processes, the NRC has not modified the
24 design basis of the plant. It's still a beyond-
25 design-basis event.

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1 And as a result of various commitments
2 that Duke made as part of the CAL process and as part
3 of the assessment for the post-Fukushima reviews, Duke
4 has committed to take certain actions, has made plant
5 modifications, and has committed to maintain certain
6 compensatory measures and (audio interference)
7 commitments that are part of the licensing basis, but
8 the design basis still remains the same. A Jocassee
9 Dam failure is a beyond-design-basis event.

10 JUDGE TRIKOUROS: There were
11 communications back and forth that indicated that
12 while the Jocassee Dam failure was not a design-basis
13 event, it was a design criterion for the plant. Are
14 you familiar with that? And I'm trying to understand
15 the implications of that.

16 I believe that puts it in the category of
17 anticipated transience without scram and station
18 blackout, for example, which are not design basis, but
19 they are design criteria. Are you familiar with the
20 Applicant's -- Duke's -- discussions regarding making
21 the dam failure a design criterion and what the
22 implications of that are?

23 MR. LIGHTY: Unfortunately, Your Honor,
24 I'm not familiar with those discussions and
25 considerations.

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1 JUDGE TRIKOUROS: All right. So the
2 current licensing basis of the plant, as far as you're
3 concerned, has not changed?

4 MR. LIGHTY: Well, the design basis has
5 not changed. The licensing basis does, however,
6 contain the commitments that Duke made to the physical
7 modifications, the compensatory measures, and other
8 actions as a result of the CAL and the post-Fukushima
9 process.

10 JUDGE TRIKOUROS: And the full list of
11 these changes would be basically the five rather large
12 modifications that were identified in -- I believe
13 it's an April 29th, '11, letter -- and also the CAL
14 measures? Is that the sum total of the changes that
15 have been made?

16 MR. LIGHTY: Yes, I believe that's
17 correct. The physical modifications were the five
18 modifications that the NRC inspected and noted in its
19 2016 CAL close-out letter, and the measures that Duke
20 initially committed to as part of the 2008 50.54(f)
21 and the CAL process, they were initially interim
22 compensatory measures that Duke agreed to make
23 permanent measures. And so those are documented
24 commitments.

25 JUDGE TRIKOUROS: And the 2011 safety

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1 evaluation that we've been discussing, that document
2 had a stated purpose in the document of basically
3 doing a technical evaluation of the 2010 inundation
4 study to determine if it was indeed bounding. Were
5 there other purposes of that safety evaluation that
6 you're aware of?

7 MR. LIGHTY: Your Honor, I'd have to go
8 back and look at that record a bit more close. I
9 think the genesis of that really was the 2008 50.54(f)
10 letter, in which the staff was trying to determine
11 whether a backfit was necessary. And so that, I
12 think, is the bigger picture of why the CAL came
13 about, why the analysis and the safety evaluation were
14 performed.

15 JUDGE TRIKOUROS: Yeah. Let me ask the
16 staff --

17 MS. CURRAN: Can I make a comment before
18 you move on, Judge Trikouros, in response?

19 CHAIRMAN BOLLWERK: Let me just find out.
20 Do you want to hear from the staff first
21 and then we'll go to Ms. Curran, or do we want to hear
22 from Ms. Curran now?

23 JUDGE TRIKOUROS: We'll let Ms. Curran
24 speak. That's fine.

25 MS. CURRAN: Thank you. I just wanted to

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1 respond to a point that was made by Mr. Lighty about
2 the staff's determination that a backfit was not
3 required. Honestly, I can't put my finger on the
4 letter right now -- oh, it was apparently a letter
5 dated March 19th, 2013, ML16070A287.

6 But my recollection of this process is
7 that the staff was assuming that Duke and the NRC had
8 worked out mitigation measures needed for adequate
9 protection and had agreed upon those measures, and
10 therefore, there's no point to a backfit order if the
11 parties agree.

12 So I just want to dispel any implication
13 that a backfit was deemed unnecessary because there
14 was no sum determination there was no adequate
15 protection issue anymore. I believe it was because
16 the staff thought, well, adequate protection is being
17 addressed here thanks to the 2011 safety evaluation.

18 That's it.

19 JUDGE TRIKOUROS: Yeah, I'd like to ask
20 the staff the purpose of that 2011 safety evaluation,
21 which we've been discussing so much here. As I said
22 before, the stated purpose, the purpose in the safety
23 evaluation itself, is to determine whether or not the
24 2010 inundation analysis was indeed bounding.

25 I didn't see any other purpose in that

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1 document, even though a great deal is being ascribed
2 to that document. Can the staff educate me here on
3 was that document supposed to have other purposes?

4 MS. WOODS: Thank you for that question,
5 Your Honor. I can confirm with the NRC staff, but I
6 believe that is the case that it was just responding
7 to the CAL. But let me confirm with them, if I may
8 have just a minute to consult. Thank you.

9 JUDGE TRIKOUROS: All right. Thank you.

10 MS. WOODS: Thank you, Your Honor.

11 MS. CURRAN: Judge Trikouros, while we're
12 waiting, I just want to get in the queue to respond to
13 that.

14 JUDGE TRIKOUROS: I'm sorry. Say again.
15 I didn't hear you.

16 MS. CURRAN: While we're waiting, I just
17 want to put myself in line to respond to your question
18 after Ms. Woods.

19 JUDGE TRIKOUROS: Fine. Fine.

20 (Pause.)

21 MS. WOODS: Thank you for your patience,
22 Judge Trikouros. In response to your question, that's
23 the only stated purpose that we can identify in the
24 letter. It's stated right under the subject letter
25 that it's regarding the confirmatory action letter.

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1 But I can take that question for the record and
2 provide you a response.

3 JUDGE TRIKOUROS: All right. That's fine.
4 Thank you.

5 MS. WOODS: Thank you.

6 JUDGE TRIKOUROS: What I'm getting at here
7 is that the -- and then Ms. Curran can comment. In
8 the petition and Mr. Mittman's document -- I believe
9 it's page 13 -- it says the NRC safety evaluation
10 required Duke to protect the Oconee site from random
11 sunny-day failures of the Jocassee Dam to a flood
12 depth of 19.5 feet in order to ensure adequate
13 protection.

14 Do you agree that that is what came out of
15 that safety evaluation, that it was a requirement to
16 protect against 19.5-foot flood?

17 MS. WOODS: Judge Trikouros, is your
18 question directed at the NRC staff?

19 JUDGE TRIKOUROS: Oh, I'm sorry. I was
20 referring to the NRC staff, at least right now.

21 MS. WOODS: Thank you, Your Honor. As a
22 matter of general principle, NRC staff safety
23 evaluations are not part of a licensing basis, nor do
24 they establish requirements. They are the
25 documentation that provides the technical safety and

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1 legal basis for the NRC staff's decisions in those
2 types of matters.

3 JUDGE TRIKOUROS: All right. So what
4 we're left with is that that safety evaluation really
5 had only one purpose, and that was to determine
6 whether or not the analysis that resulted in the 19.5-
7 foot inundation was correct and bounding.

8 MS. WOODS: As I mentioned, Your Honor,
9 the only stated purpose that I can see at this time is
10 responding to the CAL. But as I mentioned, I will
11 take that question back for the record. But to
12 clarify, NRC staff safety evaluations do not contain
13 requirements.

14 JUDGE TRIKOUROS: All right.

15 Ms. Curran, do you want to say something
16 now before I ask Mr. Lighty?

17 MS. CURRAN: Yes, please. Thank you. In
18 fact, the safety evaluation establishes what Duke
19 needs to do in order to protect against -- or
20 establishes that Duke needs to protect against a flood
21 of 19 and a half feet in order to provide a reasonable
22 assurance of adequate protection of public health and
23 safety.

24 That's an important part of this letter.
25 So, you know, that sentence -- you read this paragraph

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1 a little while ago, this paragraph on page 13 of the
2 safety evaluation, including the sentence that says
3 that the Case 2 scenario will be the new flooding
4 basis for this site.

5 And if you look earlier in the safety
6 evaluation, on page 12, it says that the intake dyke,
7 which has a top elevation of 815 feet MSL, will allow
8 flooding of the plant upon overtopping, independent of
9 the breach locations.

10 And we know from page 2 that the ground
11 elevation is 796 feet. If you subtract 796 from 815,
12 you get 19 feet. So this is not just a conclusion.
13 It's a stipulation as to what Duke needs to do to
14 provide adequate protection.

15 JUDGE TRIKOUROS: All right. Mr. Lighty,
16 do you agree with that, that that was the purpose of
17 that safety evaluation in addition to the stated
18 purpose?

19 MR. LIGHTY: No, Your Honor. I see no
20 language in the 2011 safety evaluation that requires
21 anything. There is certainly nothing in there that
22 says this and only this analysis (audio interference)
23 for some requirement that Duke must comply with.

24 There's no language in it. Ms. Curran
25 does not mention it. It's not referenced in the

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1 (audio interference) report. Nowhere is there any
2 language requiring any action to protect the site
3 against a 19-something-foot flood event.

4 JUDGE TRIKOUROS: And what I was reading
5 before, just in case it wasn't clear, was the petition
6 itself was -- in the Mittman report was indicating
7 these rather hard requirements which don't appear to
8 be easily discernible from that safety evaluation.

9 In fact, it appears that the only purpose
10 was what I had mentioned earlier, to verify that the
11 19.5 feet was, in fact, bounding and correct.

12 MR. LIGHTY: All right.

13 MS. CURRAN: Judge Trikouros, can I add
14 something here? I think a sentence that has to be
15 focused on is that the Case 2 scenario will be the new
16 flooding basis for the site. That sentence appears on
17 page 2 of the safety evaluation and appears on page
18 13. What is the flooding basis for this site?

19 So this is a basis on which to establish
20 required conditions. It's not written in the clearest
21 possible terms, but this is the technical writing that
22 the NRC staff does to say, this is what you must do to
23 give us a reasonable assurance of adequate protection.
24 And you don't have it now.

25 And you look back at the letters that the

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1 NRC wrote before this safety evaluation. They said to
2 Duke, you don't have reasonable assurance of adequate
3 protection. What are you going to do to show us that
4 you've got it?

5 So it's not approving any kind of status
6 quo. It's not a purely analytical letter. It's
7 saying, here's what you guys got to do to come into
8 compliance with the adequate protection standard.

9 JUDGE TRIKOUROS: All right, thank you.
10 So let me carry this a little further then. Again,
11 I'd like to ask the Staff, initially. That 19.5 foot
12 flooding evaluation, transitioned into the flood
13 hazard reevaluation report. And was in fact
14 superseded by the flood hazard reevaluation report.
15 Can you explain to me how that transition occurred?
16 This is for the Staff.

17 MS. WOOD: Thank you, Your Honor. I was
18 trying to come up before you.

19 As that really is a very technical
20 question in terms that that relates to the current
21 ongoing operations of the site, I would need to
22 consult with the NRC Staff to get a better response
23 for you. But I can certainly do that, or I can take
24 the question for the record. But I can certainly
25 consult with the Staff now if you would like.

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1 JUDGE TRIKOUROS: All right, that would be
2 fine. Thank you.

3 MS. WOOD: Thank you, Your Honor.

4 (Pause.)

5 MS. WOOD: Thank you again for your
6 patient, Judge Trikouros. The purpose of the flood
7 hazard reevaluation report was to respond to the
8 50/54(f) letters that were post-Fukushima.

9 JUDGE TRIKOUROS: Yes, I understand that.
10 But once they were, once those responses were
11 developed, those analyses associated with that
12 superseded the analyses that were in the 2011 safety
13 evaluation, that's correct, I, that is basically what
14 we've been discussing.

15 MS. WOOD: That is correct, Your Honor.

16 JUDGE TRIKOUROS: Yes. Well, therefore
17 the 2011 safety evaluation is not sitting out there
18 unfulfilled. It sounds to me like it's been
19 superseded by the two, I believe there were two, flood
20 hazard reevaluation reports. The initial and the
21 revised. Is that correct?

22 MS. WOOD: That is correct, Your Honor.

23 JUDGE TRIKOUROS: Great. So any
24 modifications that have been made to the plant, the
25 basis for those is not that safety evaluation but the

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1 flood hazard reevaluation analyses, is that correct?

2 MS. WOOD: If I may consult with the NRC
3 Staff, but yes, that is correct. That would be the
4 position.

5 JUDGE TRIKOUROS: Okay.

6 MS. CURRAN: Judge Trikouros?

7 JUDGE TRIKOUROS: Okay.

8 MS. CURRAN: Judge Trikouros, can I
9 comment on that question that you asked?

10 JUDGE TRIKOUROS: Yes. Yes.

11 MS. CURRAN: You just said that, you asked
12 whether the post-Fukushima measures superseded the
13 2011 safety evaluation. And I just want to make sure
14 that the record is clear, no mention of that term is
15 made in any NRC document.

16 There is no document that says, we hereby
17 say that the 2011 safety evaluation no longer has
18 validity or traction. Never said, never mentioned.
19 That is the key here.

20 They talk about how the CAL was closed
21 out. And earlier letter was closed out. But they
22 skip over the 2011 safety evaluation. There is an
23 avoidance of that.

24 And I think the reason is because the 2011
25 safety evaluation contains legal language that gives

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1 Duke and the NRC a problem. And the way the NRC and
2 Duke choose to deal with that was, not mention it,
3 avoid it, pretend it's not in the room. It's the
4 elephant in the room. It's still there.

5 And you can search and search and you will
6 not find any document that says it's superseded, it's
7 revoked, it's reconsidered, we were wrong, we're
8 changing it. You can't find anything like that. I
9 just want to make that clear.

10 MR. LIGHTY: Your Honor, if I may. Just
11 to correct Ms. Curran's very adamant statement.

12 The word superseded appears very clearly
13 in a NRC's November, I'm sorry, September 20th, 2012
14 letter that was issued after the 2011 safety
15 evaluation stating that the Agency intended to
16 maintain the CAL activity only then proceeded by
17 regulatory action related to Fukushima responses.

18 And you can also look to the June 16th,
19 2016 CAL closure report to understand why the NRC did
20 that. It was "to ensure consistency in the Staff's
21 approach to addressing these issues for all plants."

22 So the NRC made a policy decision that
23 they were shifting to this standardized process for
24 all plants to evaluate these reevaluated flooding
25 hazards. And the NRC's intention that that process

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1 would superseded the 2011 safety evaluation is made
2 clear in the September 20th, 2012 letter.

3 CHAIRMAN BOLLWERK: Ms. Curran, I think
4 you're muted.

5 MS. CURRAN: I'm sorry. I just want to
6 comment. I'm looking at the letter and it doesn't say
7 anything about the 2011 safety evaluation, that I can
8 see. These letters all go back to the CAL that was
9 from 2010. But none of them talk about the safety
10 evaluation.

11 Give me something that says, the safety
12 evaluation was wrong. Where is that?

13 CHAIRMAN BOLLWERK: Judge Trikouros, do
14 you have another question for the Staff or where are
15 we at?

16 JUDGE TRIKOUROS: I wanted to hear Mr.
17 Lighty's --

18 CHAIRMAN BOLLWERK: Okay.

19 JUDGE TRIKOUROS: -- response to that
20 statement.

21 CHAIRMAN BOLLWERK: All right. Go ahead.

22 MR. LIGHTY: The NRC very clearly stated
23 that the reevaluated flood hazard, the FHRR, was an
24 acceptable alternative to complying with the CAL
25 requirements. So, let's think about this more

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1 broadly.

2 I mean, there are alternative ways to
3 satisfy a regulatory requirement. If you choose one
4 alternative and comply with the requirement, you are
5 not in noncompliance with the alternative you did not
6 choose. There were alternative acceptable means of
7 satisfying the CAL requirements.

8 Duke chose one. Duke committed to take
9 actions based on that analysis, the 2015 FHRR. It
10 made physical modifications, it notified the NRC of
11 those modifications. The NRC inspected against those
12 modifications.

13 And the NRC closed out the CAL process,
14 transitioned the further review to the Fukushima
15 process. And eventually closed out that process as
16 well.

17 MS. CURRAN: Judge Trikouros?

18 JUDGE TRIKOUROS: Yes, Ms. Curran.

19 MS. CURRAN: I just wanted to say, I have
20 experience with the concept that there are more,
21 there's alternative ways to satisfy the regulations.
22 Absolutely.

23 But in the end there's a standard. The
24 alternative has to meet the adequate protection
25 standard. And clearly in all these post-Fukushima

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1 documents, that standard is not applied, it's
2 something else.

3 It's something that has no origins in the
4 Atomic Energy Act, no origins in the Part 50
5 regulations. It's something the NRC came up with in
6 the course of this Fukushima review.

7 And maybe that's fine for ordinary,
8 regular operation, but we're in a license renewal case
9 where there has to be an adequate environmental review
10 of significant environmental issues. And the G, as I
11 said earlier, the GEIS relies on the Atomic Energy Act
12 based safety regulatory framework for a large portion
13 of its environmental findings.

14 Alternatives that don't meet the Atomic
15 Energy Act standards, that don't even purport to meet
16 them, they might be good for some post-Fukushima
17 purposes but they don't fit into the framework that
18 the GEIS relies on for these environmental findings.
19 That's got to be the Atomic Energy Act framework.

20 That was setup a long time before the
21 Fukushima accident happened. And if the NRC is going
22 to change that, they got to do a new EIS to change it.

23 JUDGE TRIKOUROS: All right, thank you
24 very much.

25 MR. LIGHTY: Your Honor, if I may just

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1 very briefly, to tag on to that. We have spent the
2 last hour or so talking about current licensing basis
3 safety issues with very little discussion of NEPA, but
4 I would like to remind the Board that the 2011 safety
5 evaluation very clearly assesses a bounding scenario,
6 which is outside the scope of NEPA.

7 JUDGE TRIKOUROS: Thank you.

8 MS. CURRAN: And we have addressed that.
9 Mr. Mittman's analysis is based on estimated risk,
10 it's not a bounding analysis.

11 JUDGE TRIKOUROS: Going back to Mr.
12 Mittman's evaluation in the petition, he mentions that
13 the overtopping of the dam and seismic failure of the
14 dam were not included in the NRC's 2011 safety
15 evaluation. And I believe that's also, I believe
16 that's on Page 18 of Mr. Mittman's report in the
17 petition.

18 No, I take that back, it might have been
19 back on Page 13 of the, in the same area that I had
20 read earlier.

21 It's just noting that, in the cover letter
22 of the safety evaluation it says the random sunny-day
23 failure scenario was selected after evaluation of the
24 failure modes determined that the potential failure of
25 the Jocassee Dam from either an overtopping event or

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1 seismic event was not credible.

2 Now, that's not in the actual safety
3 evaluation but it is in the cover letter that explains
4 why the safety evaluation was focusing on the Jocassee
5 Dam sunny-day failure. Do you have any comment on
6 that, Ms. Curran?

7 MS. CURRAN: We could not find any public
8 documentation of the NRC's basis for making that
9 finding. As you say, it was stated in a cover letter,
10 there's no technical underpinning for it, it's just a
11 statement. And we found other information that
12 contradicted that. So that was what we relied on.

13 If we could have found documentation of
14 it, we would have looked at it and addressed it. But
15 it's just a bare-naked statement.

16 JUDGE TRIKOUROS: I believe I do have
17 reference to other documents where that same statement
18 is made within a letter. Again, it doesn't have any
19 more, it doesn't asserted anything more than a, sort
20 of a statement of that. I don't know if there was
21 ever an evaluation done.

22 Well, there is a clear statement that
23 there was an evaluation done, but I haven't seen the
24 evaluation. All right.

25 So let me ask this then to all of the

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1 parties. If in fact the, it's not credible for
2 overtopping or seismic failure of the dam, then what
3 effect would that have in the determination of the
4 core damage frequency and large early release
5 frequencies that Mr. Mittman is saying would be much
6 larger because of those two effects?

7 CHAIRMAN BOLLWERK: Who do you want to
8 start with?

9 JUDGE TRIKOUROS: Ms. Curran.

10 MS. CURRAN: Okay, just give me one minute
11 to consult with Mr. Mittman.

12 JUDGE TRIKOUROS: Thank you.

13 (Pause.)

14 CHAIRMAN BOLLWERK: While she's doing
15 that, I'm going to have a question about, does that
16 evaluation exists that everybody seems to say is
17 simply stated? For Mr. Lighty or Ms. Woods. Does
18 that document exist?

19 MS. CURRAN: I'm sorry, Judge Bollwerk,
20 could you repeat your question, I was thinking about
21 something else?

22 CHAIRMAN BOLLWERK: Sure. I didn't want
23 to interrupt what you were doing, but there's a
24 question about whether there is a bald statement that
25 there was an evaluation. I'm just wondering, does

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1 that evaluation exist? What's the document?

2 Anyway, go ahead and do what you're going
3 to do and we'll come back to that.

4 JUDGE TRIKOUROS: It's a good question.

5 (Pause.)

6 MS. CURRAN: Judge Trikouros, I think I
7 know what you were asking me and I have an answer.
8 That, I think you're asking if we took overtopping out
9 of the picture, would the environmental impact still
10 be significant? Is that what you're asking?

11 JUDGE TRIKOUROS: Yes, that's the bottom
12 line really. Because the statement was made that the
13 core damage frequency is much higher than assumed and
14 that it's even higher than that because of the
15 overtopping and seismic contributions. Which is
16 stated everywhere, that I've seen, to be not credible.

17 And I wasn't sure what not credible means
18 with respect to core damage frequency and large early
19 release frequency.

20 MS. CURRAN: All right. Mr. Mittman tells
21 me that his calculation does include overtopping and
22 seismic. But if you were to leave those out it would
23 still be significant.

24 JUDGE TRIKOUROS: All right, fine. I
25 don't know what to say about that. I don't know what

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1 the word significant means in term of a number, but
2 that's fine.

3 MS. CURRAN: Well, he hasn't broken it
4 down sitting right here. And if you wanted
5 supplemental, you know, a supplemental declaration
6 saying what that would be, we could provide it. I
7 don't think he can do it off the top of his head.

8 JUDGE TRIKOUROS: All right. Well, what
9 I hear then is that the CDF and the LERF would not
10 change very much if you excluded overtopping and
11 seismic?

12 MS. CURRAN: That's correct.

13 JUDGE TRIKOUROS: All right. All right,
14 thank you very much.

15 MS. CURRAN: Thank you.

16 JUDGE TRIKOUROS: Judge Bollwerk, did you
17 want to follow-up on your question?

18 CHAIRMAN BOLLWERK: Let me just go to the
19 Staff and the Applicant, whoever wants to answer
20 first. We've heard statements that this is, it's a
21 statement that has no support. At least none that can
22 be found in the record. Do you want to address that
23 in any way?

24 I shouldn't say the record, but the public
25 available documents may be a better term. So.

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1 MS. WOOD: Judge Bollwerk, if you could
2 clarify your question when you say, this statement.
3 To what are you referring?

4 CHAIRMAN BOLLWERK: So, the statement is,
5 and I don't have it in front of me but Judge Trikouros
6 read it. That from the letter that basically says
7 that overtopping and seismic are not considered, Judge
8 Trikouros, is the word credible or not --

9 JUDGE TRIKOUROS: Yes. It's the cover
10 letter to the safety evaluation that we're referring
11 to specifically says that the reason they used the
12 Jocassee Dam sunny-day failure was because in
13 evaluating the overtopping and seismic failure they
14 found both of those to be not credible. And that's
15 the reason the safety evaluation does that detailed
16 evaluation, only of the Jocassee Dam failure. Of the
17 sunny-day Jocassee Dam failure.

18 And that's in the cover letter to the
19 safety --

20 CHAIRMAN BOLLWERK: Right. And the
21 question I guess I'm posing is, is there any
22 documentary support among the documents that we have
23 access to, that shows that that, how that evaluation
24 was done or what the results were.

25 MS. WOOD: Thank you for that question,

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1 Your Honor. Or I'm sorry, Mr. Lighty.

2 MR. LIGHTY: Go right ahead.

3 MS. WOOD: In response to your question,
4 there is a document, it's the 2015 Staff assessment,
5 that does state that, as documented in the FHRR staff
6 assessment, the NRC Staff concluded the licensee
7 demonstrated that, one, seismically induced failure of
8 the Jocassee Dam is not a reasonable mode of failure
9 based on current information, present day methodology
10 and regulatory guidance.

11 Two, overtopping induced failure of the
12 Jocassee Dam is not reasonable, is not a reasonable
13 model of failure based on current information, present
14 day methodologies and regulatory guidance.

15 And three, the sunny-day failure of
16 Jocassee Dam was considered an unlikely, although
17 reasonable failure mode. The licensee postulated the
18 most likely locations of the breach. And inspection
19 of piping in the westbound abutment. I won't go
20 further.

21 CHAIRMAN BOLLWERK: Right. So the 2015
22 document cites the 2011 document that makes a
23 statement that I'm still wondering what the support
24 for it is.

25 MS. WOOD: I would have to consult with

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1 the technical staff, but I can take that question for
2 you for the record and look into that and provide you
3 with a response.

4 CHAIRMAN BOLLWERK: Let me see, does Mr.
5 Lighty have anything he wants to say about this, one
6 way or the other. Maybe he knows of a document or
7 something that Oconee filed with the staff that we
8 just aren't, that didn't come to our attention at this
9 point.

10 MR. LIGHTY: No. Off the top of my head,
11 Your Honor, I'm not aware of that specific document.
12 I think we shouldn't assume that it doesn't exist, for
13 a statement like that.

14 CHAIRMAN BOLLWERK: I'm not necessarily
15 trying to assume that but I don't know what it is.

16 MR. LIGHTY: Right. Right. And in the
17 2016, April 14th letter, in Section 3.4.2 the Staff
18 does mention that the 2015 FHRR evaluated the
19 potential for those events and determined that neither
20 type of failure is credible. So I believe that there
21 is an assessment in the 2015 FHRR that discusses that
22 issue.

23 And in any event, the sunny-day failure is
24 the bounding critical failure event for the site. And
25 that is also documented in a 2015 FHRR.

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1 JUDGE TRIKOUROS: All right. Now, Mr.
2 Lights, your answer to the petition on Page 18,
3 Section 3 it says, consideration of seismic and
4 overtopping events.

5 It specifically says that the 2015 FHRR
6 considered the potential for overtopping seismic and
7 sunny-day failures of the Jocassee Dam. So what
8 you're saying is that, that the other failures were
9 evaluated as part of the Fukushima response.

10 MR. LIGHTY: Yes, Your Honor.

11 JUDGE TRIKOUROS: There's no reference
12 here. Yes, there is no --

13 MR. LIGHTY: Yes. Yes, that was in
14 response to an assertion by Mr. Mittman that the NRC
15 and Duke were silent about those mechanisms. And
16 that's certainly not the case, they have been
17 considered.

18 JUDGE TRIKOUROS: Well, they have been
19 considered, at least by the flood hazard reevaluation
20 report, not in the safety evaluation apparently.
21 Which only considered the sunny-day failure.

22 MR. LIGHTY: Yes. As directed by the NRC.
23 Yes, Your Honor.

24 JUDGE TRIKOUROS: All right. There's an
25 April 29th, 2011 document that Duke issued. It

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1 provides an overall mitigation strategy and a detailed
2 list of modifications. Which I assume have been
3 completed.

4 Do you know if that document was
5 addressing the 19.5 foot inundation level?

6 MR. LIGHTY: No, Your Honor. The April
7 29th, 2016 letter confirming the completion of the
8 modifications was based on the 2015 FHRR. And that's
9 the document that, or rather what Duke committed to,
10 in its letter of August 8, 2014. Duke specifically
11 said we're going to take actions on the Fukushima
12 reevaluation.

13 JUDGE TRIKOUROS: So, we could conclude,
14 you're saying, that there were no modifications made
15 to this plant in response to the 2011 safety
16 evaluation, but only to the flood hazard reevaluation
17 analyses, is that correct?

18 MR. LIGHTY: That's correct, Your Honor.
19 The Fukushima event happened just two months after the
20 2011 safety evaluation. And that's when the NRC
21 announced its intent to (audio interference) --

22 CHAIRMAN BOLLWERK: You dropped off, Mr.
23 Lighty. We lost your audio, sorry.

24 MR. LIGHTY: All right, are you able to
25 hear me now?

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1 CHAIRMAN BOLLWERK: Yes. Thank you.

2 MR. LIGHTY: Okay. So, yes, the
3 modifications that were completed, as noted in the
4 April 29th, 2016 letter, were based on the 2015 FHRR.
5 And that's the commitment that Duke made in a separate
6 letter on August 8th, 2014.

7 So, about two years before that Duke
8 committed to take those actions based on the FHRR,
9 rather than the 2011 safety (audio interference) -- it
10 was issued and that the NRC announced its intents to
11 the perform superseding analyses of that issues.

12 JUDGE TRIKOUROS: And does the Staff agree
13 with that?

14 MS. WOOD: Your Honor, let me consult with
15 the NRC Staff.

16 JUDGE TRIKOUROS: Thank you.

17 MS. WOOD: And, Your Honor, if I may
18 clarify your question, is it, is your question
19 regarding the status of the, or the bearing of the
20 2015 flood hazard reevaluation report?

21 JUDGE TRIKOUROS: The question is, were
22 the modifications that have been implemented at the
23 plant, based upon the 2015 flood hazard reevaluation
24 report, and not on the (audio interference) --

25 MS. WOOD: Understood, Your Honor. If I

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1 may --

2 JUDGE TRIKOUROS: -- and that, yes, go
3 ahead. Sorry.

4 MS. WOOD: No, my apologies. There was a
5 bit of an audio delay, please continue.

6 JUDGE TRIKOUROS: And that's really the
7 question. That the 2011 safety evaluation
8 requirements, if there was such things, were not
9 implemented in any plant modification, but only the
10 2015 flood hazard reevaluation report, what formed the
11 basis of the plant modification.

12 MS. WOOD: Thank you for the
13 clarification, Your Honor. If I may, let me consult
14 with the NRC Staff?

15 JUDGE TRIKOUROS: Okay, thanks. Thank
16 you.

17 MS. WOOD: Thanks, Your Honor.

18 JUDGE ARNOLD: While she's consulting, is
19 this video conference ending at 4 'clock?

20 CHAIRMAN BOLLWERK: Not necessarily.

21 JUDGE ARNOLD: Okay.

22 JUDGE TRIKOUROS: This will be my last
23 question and I'll move on to, and then you can move on
24 to your questions. Because we're not going to get all
25 the questions in today, obviously, so.

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1 (Pause.)

2 MS. WOOD: Thank you, Your Honor. As it
3 relates to the 2011 safety evaluations, the changes
4 were not implemented since the Fukushima earthquake
5 happened, only about two months later. But there were
6 changes implemented as a result of the 2015 flood
7 hazard reevaluation report.

8 JUDGE TRIKOUROS: All right. All right,
9 thank you very much.

10 MS. WOOD: Thank you, Your Honor.

11 JUDGE TRIKOUROS: I appreciate that.

12 MS. CURRAN: Judge Trikouros --

13 JUDGE TRIKOUROS: So that --

14 MS. CURRAN: -- can I make a comment?

15 JUDGE TRIKOUROS: Go ahead.

16 MS. CURRAN: Hello, this is Diane, can I
17 make a comment?

18 JUDGE TRIKOUROS: Yes. Yes, please.

19 MS. CURRAN: Now, someone mentioned the
20 Fukushima accident happened within a couple of months
21 after the issuance of the safety evaluation. The
22 great irony here is that the Fukushima accident was
23 used as a tool, the post-Fukushima review, was used as
24 a tool for lowering the level of safety at Oconee for
25 dropping the flood height against which this plant had

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1 to be protected, it looks like. That's the
2 implication.

3 And so, this terrible accident that
4 happened in Japan, what we learned from that was that
5 the standards for Oconee could be relaxed, or while it
6 had been just a few months prior, determined to be
7 necessary for adequate protection. And the standard
8 applied was just a plain old word, reasonable. Not
9 reasonable assurance of adequate protection but just,
10 this is reasonable. What does that mean? Good
11 enough.

12 And it seems like the supreme irony that
13 the Fukushima accident was used to essentially ignore
14 the safety evaluation. That ought to go into the
15 record, the NEPA record, for this decision.

16 The public should know what happened at
17 Oconee. Because it's not good. It does not reflect
18 well on this Agency. Thank you.

19 CHAIRMAN BOLLWERK: Could I go back and
20 clarify one thing. Ms. Woods, was your answer that
21 you agreed with Mr. Lighty or you didn't agree with
22 Mr. Lighty, in terms of the way he characterized it?

23 MS. WOOD: Thank you for that question,
24 Your Honor. To the extent that Mr. Lighty is
25 indicating that the 2011 FHRR changes were not

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1 implemented as a result of the Fukushima earthquake
2 and that changes were actually made as a result of the
3 2015 flood hazard reevaluation report, I would be in
4 agreement with that characterization.

5 CHAIRMAN BOLLWERK: Okay, thank you.
6 Sorry.

7 MS. WOOD: Thank you, Your Honor.

8 CHAIRMAN BOLLWERK: Judge Trikouros?

9 JUDGE TRIKOUROS: Again, I have many
10 questions. I think at this point I'm going to defer
11 to Judge Arnold.

12 JUDGE ARNOLD: Okay, let's see. On Page
13 14 of Mr. Mittman's report he states, in 2010 NRC
14 finalized its own generic dam failure frequency. And
15 that was the 2.8 times 10 to the minus 4 number.

16 And on Page 17 of Duke's answer they
17 discuss their probabilistic best estimate calculation
18 of dam failure. Specifically for the Jocassee Dam.
19 And that also came out in 2010.

20 And I think it was within a couple of
21 weeks of the 2010 NRC number. Does that seem right to
22 you, Mr. Lighty, that they were contemporary
23 estimates?

24 MR. LIGHTY: Yes, Your Honor, they do
25 appear to be dated within a, in a similar time frame.

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1 In 2010.

2 JUDGE ARNOLD: Okay. Well let me ask you
3 this. In performing the 2015 flood hazard
4 reevaluation report, were the people that performed
5 that evaluation aware of the generic dam failure
6 frequency that had come out earlier?

7 MR. LIGHTY: I'm not sure about that, Your
8 Honor, but I would note that the FHRR and the analysis
9 performed for the CAL were deterministic analyses
10 rather than probabilistic analyses. So I would assume
11 that they were at least aware of it, but I don't know
12 off the top of my head.

13 JUDGE ARNOLD: Okay. This is a question
14 for Petitioners. On Page 17, okay, on Page 17 of
15 Duke's reply to your petition Duke states the 2.8e
16 minus four dam failure frequency used by Mr. Mittman
17 is an estimated generic dam failure rate for large
18 rock dams.

19 And their reference to that statement was
20 the 2010 memorandum for Mr. Mittman. So would you
21 disagree with that characterization that it is an
22 estimated generic dam failure rate?

23 MS. CURRAN: No.

24 JUDGE ARNOLD: Okay. And then, let's see.
25 Also on Page 17 of Duke's answer they quote an NRC

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1 information notice to support their assertion that
2 generic values are typically used as bounding values
3 of dam failure rates. Would you disagree with that
4 characterization?

5 MS. CURRAN: The answer is, sometimes
6 they're used for bounding and sometimes it's the best
7 information that's available.

8 JUDGE ARNOLD: Okay. In this case would
9 you consider it to be the best information available
10 in light of the probabilistic best estimate
11 calculation that Duke had their people perform?

12 MS. CURRAN: Judge Arnold, there is no
13 record that the NRC Staff has received that document.
14 It's not in the public record. So it's a document
15 that Duke has but there is no way to review it and
16 evaluate it.

17 JUDGE ARNOLD: Okay. Let me ask Mr.
18 Lighty. Is that correct that they, your dam failure
19 rate is not available to others?

20 MR. LIGHTY: In the context of the RAC
21 report that we cited in our answer pleading, we
22 pointed out the existence of that to contradict an
23 assertion from Mr. Mittman that no Jocassee specific
24 value was available or existed because it was
25 available in a document on the NRC's website that Mr.

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1 Mittman himself cited multiple times. So that was the
2 purpose for referencing that specific document from
3 2010.

4 JUDGE ARNOLD: Okay.

5 MS. CURRAN: Can I respond to that for
6 just a moment, Judge Arnold?

7 JUDGE ARNOLD: Yes.

8 MS. CURRAN: This document, we talked
9 about this, it's discussed in our reply. It's not
10 docketed by the NRC, it was released in a mess of
11 documents under FOIA.

12 Apparently the NRC had it, but if you look
13 at the document carefully it has the watermark, draft,
14 stamped on the pages. It's just, you can't tell, is
15 this supposed to be something people should rely on?

16 There is no cover letter to the NRC
17 saying, here's our document, this is final. It's very
18 difficult for us going through many, many documents
19 to, it really is unreasonable to expect us to even
20 figure out what this document is supposed to be.

21 JUDGE ARNOLD: Okay. Different subject.
22 On the top of Page 15 of the petition you state, they
23 fail to take into account additional significant
24 contributors to dam failure risks such as seismically
25 induced dam failure and dam overtopping.

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1 Is it your assertion that, to this date,
2 seismically induced failure and dam overtopping have
3 still not been considered?

4 MS. CURRAN: We can see no evidence they
5 have been considered in the environmental report, that
6 is correct. That is the subject, the environment
7 report, is the subject of this hearing request. It is
8 the draft of the supplemental GEIS that the NRC Staff
9 will be preparing.

10 Under 10 CFR 2.309, this is the focus of
11 our hearing request. So if we don't see it in the
12 environmental report, we don't have to go looking for
13 it elsewhere. That's the document that we're supposed
14 to be evaluating.

15 JUDGE ARNOLD: Hm. And if I understood
16 correctly, the answers to Judge Trikouros's question,
17 all that we've seen so far is a couple of references
18 saying that they've been considered and they're
19 insignificant. Is that how you understand it, Mr.
20 Lighty?

21 MR. LIGHTY: Your Honor, the consideration
22 of seismic and overtopping event was discussed in the
23 2015 FHRR. So it has been considered by Duke. It's
24 not an issue that has been ignored by anyone.

25 JUDGE ARNOLD: Okay.

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1 MR. LIGHTY: And just to respond to Ms.
2 Curran, it is not due to position that she is being
3 faulted for not disputing any PRA information that is
4 not otherwise presented in the environmental report.
5 And that was very clear in our answer pleading.

6 Everything that is required by Part 51 to
7 (audio interference) --

8 CHAIRMAN BOLLWERK: We had gone off again.
9 There you go. Nope. You said, everything was
10 required by Part 51, that was the last I heard.

11 MR. LIGHTY: Everything that was required
12 by Part 51 is presented in the environmental report
13 itself. We stated that in our answer pleading. That
14 is still our position. Information required by Part
15 51 is in the ER.

16 MS. CURRAN: May I make a comment?

17 JUDGE ARNOLD: Yes, you may.

18 MS. CURRAN: It just seems to us that Duke
19 is trying to have it both ways. The way we read the
20 environmental report it said, we've done some updates
21 to our PRA and we find they don't change the analyses
22 that we did in 1998 to any significant degree.

23 And we had some information about what was
24 done in 1998. A lot more than was given in the 2021
25 analysis, so we looked at that.

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1 And now they're saying, wow, you really
2 should have looked at all this other stuff we did. We
3 did a PRA, the Fukushima work. And it's not mentioned
4 there.

5 So, you can't say, things are pretty much
6 the way they were in 1998, but the intervener, the
7 petitioners can't challenge. That's, we're way in the
8 history, way in the past, evaluating the 1998 analysis
9 when there is actually nothing new that's been
10 presented in the environmental report, except for some
11 vague statements.

12 JUDGE ARNOLD: Okay. Briefly, most of my
13 questions have been addressed already so I'm done with
14 my questions.

15 CHAIRMAN BOLLWERK: All right, thank you,
16 Judge Arnold. Let me go back to Judge Trikouros a
17 second. Anything else that you want to talk about
18 this afternoon, Judge Trikouros?

19 Anything about SAMA, I know that's one of
20 your interests, your areas of interests.

21 JUDGE TRIKOUROS: I would ask the, would
22 ask one question. Was seismic, was the probability of
23 dam failure a sensitivity evaluation that was done in
24 the original SAMA analysis?

25 Does anyone know that, yes or no? I know

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1 they did a rather extensive sensitivity study, I
2 wasn't sure exactly whether or not they considered
3 Jocassee Dam failure a probability as a parameter.
4 Mr. Lighty would be the most likely to answer that,
5 but the Staff might have an idea.

6 MR. LIGHTY: Unfortunately, Your Honor, I
7 don't know the answer to that, we would have to review
8 the 1998 analysis.

9 JUDGE TRIKOUROS: Okay. So let me ask a
10 related, or a sort of related question. With all of
11 these modifications that have been made to the plant,
12 most of which are pretty significant changes to divert
13 flooding away from the site. Is there any requirement
14 or any plan to reevaluate the inundation?

15 To redo the inundation analysis to see
16 what the results would be at this point? It's
17 certainly going to be a lot lower, it's just not clear
18 what.

19 MR. LIGHTY: Your Honor, I'm not aware of
20 any plans to redo the evaluation. I think the
21 reasoning being is that the evaluation is now
22 conservative based on additional actions that have
23 been taken.

24 JUDGE TRIKOUROS: Right. Is the Staff
25 aware of any need to redo the inundation analysis to

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1 take into account all these modifications?

2 And I'm specifically referring to the one
3 that was done in the 2011 safety evaluation which was
4 a very conservative one that arrived at a 19.5 foot.
5 It's virtually certain that it would be lower than
6 that today but we have no idea what. So that's for
7 the Staff.

8 MS. WOOD: Thanks for that question.

9 JUDGE TRIKOUROS: Yes.

10 MS. WOOD: Thank you for that question,
11 Your Honor. There is no plan at this point.

12 But if I may, to go back to a previous
13 point that was made about the availability of a
14 document. I don't have that FOIA document available
15 in front of me but I believe the letter that is
16 referenced, it's called Oconee flood protection and
17 the Jocassee Dam hazard basis for allowing NRC
18 continued operations. There's an ML number. It's
19 ML090570117.

20 Again, I don't want to introduce a new
21 document into the record, but just go back to, I
22 believe that is the document that was referenced in
23 that FOIA request. Because in it, it does state the
24 information about the Staff's best estimate of the
25 mean failure rate is approximately two times ten to

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1 the negative four per year with a 90 percent credible
2 interval.

3 Again, I don't want to introduce another
4 document into the record, but that was a publicly
5 available. And I remember that, I think it's the
6 document that's referenced in the FOIA.

7 JUDGE TRIKOUROS: Thank you.

8 MS. CURRAN: Judge Trikouros, this is
9 Diane Curran, can I make a comment in response to one
10 of your questions?

11 JUDGE TRIKOUROS: Yes. Yes.

12 MS. CURRAN: You were asking before about,
13 what had been done to study potential reductions in
14 flood heights that were achieved by modifications to
15 the plant. Petitioners want to make it clear, our
16 view, our sense of this record is that any lower flood
17 heights at Oconee are not due to modifications,
18 they're due to less conservative analysis of dam
19 breach.

20 And that leads to longer times for dam
21 failure and lower flood heights. So that's what
22 happened, is the analysis is different.

23 The flood heights are lower because the
24 analysis changed, not because Duke took all these
25 steps to address it. That's the issue here.

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1 JUDGE TRIKOUROS: Well, what I was trying
2 to get at was that the, if the modifications were
3 based on the 2015 FHRR, then the numbers that came out
4 of that analysis reflect the modifications. And it
5 would be useful, I think, to some extent to see what
6 would have happened if you re-analyzed the safety
7 evaluation analysis with these modifications included.

8 Because the 19.5 number didn't include
9 those modifications. And from the documents I've
10 seen, those modifications were pretty extensive to
11 diverting water away from the site.

12 MS. CURRAN: That may be the case, but we
13 have, in the PRA, that document was the draft summary
14 document that was in that released FOIA document that
15 said, that there is a significant risk still that the
16 SSF walls will be overtopped. And if that happens,
17 that we're talking about a core damage accident.
18 We're talking about three reactors with a core damage
19 accident. It's very, very serious.

20 And it's not, the big issue here is, to
21 what degree has Duke actually mitigated potentially
22 very serious environment impacts. I'm looking at,
23 okay, in this document, which is the, it's called
24 initial hazard curve for flooding at the safe shutdown
25 facility at Oconee Nuclear Station resulting from a

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1 random failure of Jocassee Dam.

2 The primary author is David S. Bowles, B-
3 O-W-L-E-S. And the date is February 28th, 2010.

4 If I turn to Page 21 it says, this is
5 written in 2010, right. All (audio interference) dam
6 failure cases are as estimated to result in
7 overtopping of the SSF wall. And these cases account
8 for 92 percent of the estimated total probability for
9 failure for the base run, per year of 2.6e to the
10 minus six per year.

11 This is a very significant statement. We
12 don't have any kind of assurance from Duke now that
13 the likelihood of the SSF being flooded has been
14 reduced to an insignificant level.

15 MR. LIGHTY: Your Honor, if I may briefly
16 respond. That's exactly what the 2015 FHRR shows is
17 that the SSF wall will not be overtopped.

18 Remember this 2010 RAC report is from
19 2010. At the early end of these analyses, prior to
20 the FHRR. And certainly prior to the physical
21 modifications that have been made at the site.

22 MS. CURRAN: But this all depends on the
23 analysis of how fast the flood is going to develop and
24 the size of the flood and it's still, you know, I
25 don't think that Duke has really satisfied the NEPA

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1 standard here for a hard look with a post-Fukushima
2 document that isn't even part of the, not being
3 offered as part of the environmental report. And as
4 Mr. Lighty says, uses a different analytical method
5 than PRA. It just, it needs a hard look, this issue.

6 MR. LIGHTY: Your Honor, just very
7 briefly. Ms. Curran's main complaint is that the 2015
8 FHRR uses less conservative analysis than the 2011
9 safety evaluation. And that is correct. That's
10 exactly how the NRC characterized it.

11 But the 2011 safety evaluation is a
12 bounding evaluation that NEPA does not require. We've
13 spent hours talking about current licensing basis
14 safety issues without focusing on this very important
15 core NEPA concept that NEPA doesn't require analysis
16 of bounding accident scenarios. It's a very well
17 settled principle of law that undercuts Petitioner's
18 entire claim here related to the 2011 safety
19 evaluation.

20 JUDGE TRIKOUROS: Ms. Curran, did you want
21 to say anything about that?

22 MS. CURRAN: Give me one minute please.

23 JUDGE ARNOLD: Judge Bollwerk, it seems to
24 me our questions have been answered and this has
25 devolved into a free for all between the parties.

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1 Maybe we should consider wrapping it up.

2 (Pause.)

3 JUDGE TRIKOUROS: Well, let me say, while
4 Judge Bollwerk is thinking about that, I'm finding
5 some of these interactions useful. But I agree, it's
6 not something I want to allow to go on indefinitely,
7 but some of these interactions have been useful I
8 think.

9 JUDGE ARNOLD: Judge Bollwerk?

10 JUDGE TRIKOUROS: Hello?

11 JUDGE ARNOLD: When you speak we're not
12 hearing you.

13 JUDGE TRIKOUROS: Hello?

14 JUDGE ARNOLD: I hear you, Nick, I'm not
15 hearing Judge Bollwerk.

16 JUDGE TRIKOUROS: I don't either.

17 CHAIRMAN BOLLWERK: Can you hear me now?

18 JUDGE ARNOLD: Okay.

19 JUDGE TRIKOUROS: Yes.

20 CHAIRMAN BOLLWERK: Okay, great.

21 JUDGE TRIKOUROS: Did you hear what we had
22 said?

23 CHAIRMAN BOLLWERK: Yes, I did. So --

24 JUDGE TRIKOUROS: Okay.

25 CHAIRMAN BOLLWERK: -- I assume Ms. Curran

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1 wanted to make one more comment?

2 MS. CURRAN: Yes, thank you. Just one
3 moment, please.

4 (Pause.)

5 MS. CURRAN: The 2011 safety evaluation is
6 conservative. It is more conservative than the 2016
7 FHRR analysis. But it is not bounding. There were
8 more conservative parameters that were not picked by
9 the NRC, period. Thank you.

10 CHAIRMAN BOLLWERK: All right. All right.

11 JUDGE TRIKOUROS: Can I just say one
12 thing?

13 CHAIRMAN BOLLWERK: Yes.

14 JUDGE TRIKOUROS: We left this, we're sort
15 of leaving this in a bad place. Let me just point
16 out, and it really was also a question I had.

17 The procedures at Oconee require that if
18 the safe shutdown facility wall is overtopped and that
19 system, that backup system fails, that they would
20 implement then the mitigating features of the, what we
21 call the FLEX system. And I don't know what is
22 proprietary in all of this, and at this point I'm not
23 going to, I think I'm not going to say anything
24 proprietary.

25 But that FLEX system is capable of

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1 preventing a core melt for levels of flood that are
2 significantly higher than would take out the safe
3 shutdown facility. I don't know what those numbers
4 are. Those numbers are not in any of the material on
5 the record.

6 But I was going to ask if the FLEX system
7 could handle 19.5 feet, a 19.5 foot flood? I don't
8 know if anyone knows the answer to that question but
9 I was going to ask it.

10 Mr. Lighty, are you aware of how capable
11 that FLEX strategy would be?

12 MR. LIGHTY: I believe so, Your Honor.
13 And the NRC considered that in the FHRR analysis in
14 2016 looking at the additional assurance above the
15 FHRR report. And it discussed things like deploying
16 a backup method of core cooling independent of the SSF
17 using portable equipment.

18 JUDGE TRIKOUROS: Did it refer to what
19 type of flood that it would be capable of mitigating?

20 MR. LIGHTY: I'll need to confer with our
21 staff please. Just a moment.

22 JUDGE TRIKOUROS: All right.

23 (Pause.)

24 MR. LIGHTY: Yes. Judge Trikouros, I did
25 confirm that the FLEX plan is designed for 19.5 feet.

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1 JUDGE TRIKOUROS: All right. And so, it
2 can handle that. In addition, the 19.5 feet is no
3 longer applicable because of the five or six
4 modifications that have been made. So there is some
5 conservatism as it seems.

6 MR. LIGHTY: I think that's a fair
7 characterization, Your Honor.

8 JUDGE TRIKOUROS: All right.

9 MS. CURRAN: Judge Trikouros, can I make
10 a comment?

11 JUDGE TRIKOUROS: Yes.

12 MS. CURRAN: I just want to remind
13 everyone that this goes back to the 2011 safety
14 evaluation was an adequate detection evaluation. And
15 the NRC has determined that portable equipment, like
16 FLEX equipment, cannot be used to satisfy the adequate
17 protection standard.

18 So I know that NEPA's reasonable standard
19 is not the same as the adequate protection standard,
20 but, it's a big but, the NRC relies on the adequate
21 protection decision making framework and regulatory
22 (audio interference) --

23 CHAIRMAN BOLLWERK: Mr. Curran, you cut
24 out.

25 MS. CURRAN: -- that the environmental

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1 impacts of operating nuclear reactors are acceptable.

2 So if there is some safety issue that is
3 outstanding, like there is here, it can't be
4 backfilled with a non-safety FLEX solution. And that
5 can't, that just doesn't do it.

6 Unless you change the entire conceptual
7 basis of the license renewal GEIS and say, the Atomic
8 Energy Act really doesn't matter to us anymore. We're
9 not going to rely on the safety findings anymore.

10 We're going to take all the accidents and
11 we're going to subject them to our, whatever some new
12 analytical method is, the probabilistic method, and
13 we're going to look at these accidents from a
14 probabilistic standpoint. And then it's going to be
15 fair game for all the interveners to talk about that.

16 As long as the NRC wants to protect these
17 Atomic Energy Act decisions from challenge in a
18 license renewal NEPA proceeding, like this one, they
19 have to do it right. They have to comply with the
20 process.

21 And here FLEX equipment can't be used to
22 substitute for adequate protection mergers, period.
23 And that's a NEPA issue because the GEIS makes it
24 relevant to NEPA. Because the NRC has decided that's
25 going to be a fundamental cornerstone of the NEPA

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1 findings for license renewal. Thank you.

2 CHAIRMAN BOLLWERK: All right, thank you.
3 Ms. Woods, we haven't heard anything from you
4 recently. I'm going to give you one last chance if
5 you have anything you want to say on any of the
6 subjects we've been dealing with the last ten or 15
7 minutes.

8 MS. WOOD: Thank you, Your Honor. Just
9 like a last closing note. While the Petitioner's
10 arguments, and we spent a great deal of time
11 discussing them at lengths, go to the current
12 operating condition of the site, which are necessarily
13 outside the scope of a license renewal proceeding, I
14 really would just like to state again that there is no
15 adequate protection issues at Oconee, as can be seen
16 by the at least ten years worth of extension of
17 engagement that we've had, NRC Staff has had with Duke
18 on the flood hazards considerations. Including the
19 potential threat at Jocassee Dam.

20 These issues are squarely covered and
21 addressed under the NRC's ongoing regulatory
22 oversight.

23 And also that as has been shown here, the
24 Petitioners have not shown that the SAMA analysis that
25 was done by the licensee is unreasonable under NEPA.

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1 Which has been actually the source of the contention
2 asserted here. Thank you, Your Honor.

3 CHAIRMAN BOLLWERK: All right, thank you.
4 Let me just turn to the Board. Judge Trikouros,
5 anything further you have?

6 JUDGE TRIKOUROS: No, I think that's it.

7 CHAIRMAN BOLLWERK: All right. Judge
8 Arnold?

9 JUDGE ARNOLD: Nothing for me.

10 CHAIRMAN BOLLWERK: All right, thank you.
11 Well, at this point, let me deal with one subject
12 here. There were several things that were mentioned
13 about supplementing the record. Let's leave it this
14 way. If the Board needs any record supplementation
15 we'll let the parties known. And we'll set a schedule
16 for the filings. So that's something we can discuss
17 amongst ourselves.

18 I know there was questions about design
19 basis, about the, question of a document dealing with
20 seismic and overtopping. But let the Board, we'll
21 discuss that, and if we want to have any further
22 submissions we'll let you know and set up a filing
23 schedule for that, all right? Okay.

24 At this point then I think we've concluded
25 the essential pre-hearing conference and the oral

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1 argument on Petitioner's two NEPA associated dam
2 failure impact contentions. We very much appreciate
3 the presentations by the participant's Counsel, the
4 information they provided in response to the Board
5 questions.

6 As Judge Trikouros mentioned, I as well
7 found them providing some interesting and useful
8 information, so we appreciate the efforts you put in
9 preparing for the argument and your presentations
10 today.

11 And before adjourning I wanted to take a
12 moment to thank those on the licensing board panel
13 staff who made it possible for us to conduct this
14 virtual argument. And we are, as always, indebted to
15 Andy Welkie of the panel's information technology
16 staff who organized this Webex conference.

17 With the very valuable assistance of our
18 two law clerks, Brooke Taylor and Allison Wood.
19 Thanks as well to our administrative assistant, Twana
20 Ellis, for her assistance in issuing the various
21 notices and orders that provided the participation and
22 members of the public with information about this
23 conference.

24 And with a reminder to Counsel to remain
25 online to assist the court reporter with any

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1 questions, we will stand adjourned. Again, thank you
2 very much.

3 (Whereupon, the above-entitled matter went
4 off the record at 4:36 p.m.)

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