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NUCLEAR REGULATORY COMMISSION

Title: Nextera Energy Seabrook LLC,
Seabrook Station Unit 1

Docket Number: 50-443-LA2

ASLBP Number: 17-953-02-LA-BD01

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NUCLEAR REGULATORY COMMISSION

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ATOMIC SAFETY AND LICENSING BOARD PANEL

HEARING

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In the Matter of: : Docket No.

NEXTERA ENERGY : 50-443-LA2

SEABROOK, LLC : ASLBP No.

(Seabrook Station : 17-953-02-LA-BD01

Unit One) :

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Thursday, June 29, 2017

Nuclear Regulatory Commission

Hearing Room T-3 B45

11545 Rockville Pike

Rockville, Maryland

BEFORE:

RONALD M. SPRITZER, Chair

NICHOLAS G. TRIKOUROS, Administrative Judge

DR. SEKAZI MTINGWA, Administrative Judge

APPEARANCES:

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(10:03 a.m.)

JUDGE SPRITZER: Good morning everyone. We can see you. I trust you can see us. If you can't see us, please let me know. Very good. We are here this morning in the matter of NextEra Energy Seabrook LLC, concerning Seabrook Station Unit 1.

This is NRC docket number 50-443-LA2, also ASLBP number 17-953-02-LA-BD01. And we are here to hear oral argument on the questions of standing and contention admissibility in this matter.

My name is Ronald Spritzer. I am an administrative judge here at the NRC. I am an attorney. I've been here for approximately nine years and before that I was with the Justice Department in the Environment Division.

I'll ask my colleagues to my right and left to introduce themselves briefly.

JUDGE MTINGWA: Good morning. I'm Judge Sekazi Mtingwa. I am a nuclear physicist and retired from MIT about five years ago. Currently, I am a principal partner in a consulting firm called TriSEED Consultants in Hillsborough, North Carolina, and I've been an administrative judge here for the last year.

JUDGE TRIKOUROS: Good morning. My name

is Nick Trikouros. I am also an administrative judge for about the last 11 years. I am a nuclear engineer. Prior to becoming an administrative judge, I was a nuclear energy consultant for a number of years, running my own consulting company.

JUDGE SPRITZER: Very good. Can we ask the party's representatives to introduce themselves. Let's start with the petitioners.

MS. TREAT: Good morning. I'm Natalie Treat. I'm the executive director of the C-10 Research & Education Foundation. We are from Newburyport, Massachusetts near Seabrook Station.

Would you like me to introduce -- so I'm going to lead on the standing part of it, and I've got a few of my board members, who will make comments on contentions. Would you like them to introduce themselves now?

JUDGE SPRITZER: Yes, that would be helpful.

MS. TREAT: Here you are, Chris.

MR. NORD: Good morning.

JUDGE SPRITZER: Good morning.

MR. NORD: I'm Mr. Nord. I live in Newbury, Massachusetts and am a longtime board member and founding member of C-10.

MS. DOENMEZ: Good morning. I'm Sarah Doenmez. I am the academic dean of the Dublin School in Dublin, New Hampshire, and I am a member of the board of C-10.

MS. SKIBBEE: Good morning. I'm Pat Skibbee, a longtime, probably 30 years' member of C-10 and president of the board of directors. Nice to meet you.

JUDGE SPRITZER: Thank you. All right. We've covered C-10. Let's move on for the NRC staff. Who are the representatives for the staff who will be speaking?

MR. HARRIS: Good morning, Your Honor. This is Brian Harris. I'm the lead attorney for the staff and with me I have co-counsel that will be off-screen. I imagine I'll be doing most of the talking for this argument, but with me is Ms. Anita Ghosh and Mr. Jeremy Wachutka.

JUDGE SPRITZER: Very well. And for Seabrook, NextEra Energy?

MR. LIGHTY: Thank you, Your Honor. This is Ryan Lighty with Morgan, Lewis, and I will be the primary spokesperson today. I'm also joined by my fellow representatives Paul Bessette, also with Morgan, Lewis and Steve Hamrick with NextEra.

JUDGE SPRITZER: Very good. That about covers it, I believe. We think we have people listening on the phone. Unfortunately, we don't know precisely the number, but a number of people did call in and indicate they were planning on listening in, but I understand their phones are muted so we shouldn't be interrupted.

In the event anyone is presently on the line, let me at least give a brief explanation of what this case involves. The petition filed by the C-10 Research & Education Foundation is challenging a license amendment request, which you may hear referred to as the LAR, which seeks to adopt a particular methodology for analyzing a problem called the alkali-silica reaction and its effect on concrete at the safety-related structures at the Seabrook plant.

Petitioners are challenging the adequacy of that methodology, and we will be hearing argument first about their standing, which basically means whether they have alleged a legally sufficient injury to be entitled to bring the case.

And then second, we will be hearing argument about their contentions, particularly whether those contentions satisfy the criteria adopted by the Nuclear Regulatory Commission for proceeding to the

next stage of the case, which would involve potentially an evidentiary hearing or at least a decision on the merits of their claim.

As far as time limits for argument, we've indicated those in our order. We will adhere to those to the extent possible, but the primary purpose of this argument is for you to answer our questions, so we're not going to interrupt anybody in the middle of an answer. We will allow you to speak as long as necessary to get the answers to our questions.

If you're getting close to your time limit, I will attempt to give you a warning. I don't think we can use the cards that we normally use at an in-person oral argument, but I'll try and give you a warning if we're getting close to your time limit. But, as I said, we will allow you the time you need to answer our questions.

If, at some point, you need to confer with someone else who's with you, and you don't want us to hear what you're saying, which I suspect would be the case, you'll need to mute your phone. I think they can also turn off the camera. Correct? So you can mute both those things.

Just let us know you need to confer, and we'll take a break, a short break, not leaving the

room, but we'll give you adequate time to do that, and we won't hold any time you take for that against you. That is, it won't count against your time limit.

We will take a full break, that is leaving the courtroom, probably about halfway through. I would guess that would be around 11:30, although it depends on what the most convenient time is. I think that covers the administrative matters. Does anyone have any questions before we get started?

Hearing none, we will proceed. We will hear first from the petitioners, and I take it the first argument will be on standing presented by Ms. Treat.

MS. TREAT: That's correct. Okay. Well, thank you everyone. Good morning, Chairman Spritzer and Judge Trikouros and Mtingwa. Thank you for the opportunity to come before you today. As mentioned, I'm Natalie Treat, executive director of the C-10 Research & Education Foundation, Incorporated. And as you heard, I'm here with members of my board of directors, who will speak on the contentions that we raised in our April 10th petition.

As you see, we are seeking to intervene pro se. I began this position here at C-10 in March, and as you've heard, my board of directors has been at

it for a lot longer, tracking safety issues at Seabrook for decades. So we thank the board for your forbearance as we share the job of presenting today.

The C-10 Foundation has maintained our standing as a legitimate voice of concern for public health and safety within our reactor community, where we have monitored both the radioactive emissions and the general operation and condition of the plant since well before NextEra assumed Seabrook's ownership.

Born out of a group of citizens who live within the ten-mile radius of Seabrook Station and were concerned with the viability of emergency evacuation plans, the C-10 Research & Education Foundation, Incorporated was established in 1991.

We have operated a real-time airborne radiation monitoring network under contract with the Commonwealth of Massachusetts since the plant went online, and we have expressed a concern about ASR since 2010.

It is worth noting that the C-10 Foundation is the only organization seeking to intervene in this important docket. Several state and local leaders are on record with NRC expressing their concern with Seabrook's concrete and the possibility of a failure would cause grave harm to the public,

which includes their constituents and our members.

So here are the reasons why we believe we should be granted standing before the board. NRC has acknowledged that the concrete at Seabrook Station is failing due to alkali-silica reaction or ASR and that there is no known remedy. That is why NextEra was compelled to file a license amendment request and that's why we are here today.

NRC has admitted that you cannot know the true rate or extent of the concrete degradation, therefore cannot know when a catastrophic failure may happen. Reasonable assurance of adequate protection for the public is NRC's ultimate responsibility.

The concrete walls and containment dome at Seabrook that are experiencing ASR are what separates C-10, its members and the public-at-large from exposure to some of the most deadly toxins on earth. C-10 Foundation's office and my home are both within the ten-mile radius of Seabrook Station thus in harm's path should there be a significant release of radiation.

The majority of our members and board live within the ten-mile emergency planning zone and no one believes that a catastrophic event, such as Three Mile Island, Chernobyl or Fukushima can happen until it

does. But, as we know, accidents can and do happen.

While the NRC claims our alleged injury is merely hypothetical, by acknowledging in its response to our April 10th petition that we have made a viable contention, NRC has also effectively admitted that C-10 and our members are exposed to the risk of harm due to radiological contamination resulting from the concrete degradation.

If this license amendment request is granted, C-10, our members and the public-at-large will remain at heightened risk of physical and financial harm should the degraded concrete ultimately fail.

The facts alleged in our findings to date have satisfied both traditional and proximity-based standing requirements. The organization of C-10 would be harmed if failing concrete at Seabrook's containment structures contributed to a radiological release that caused us to evacuate our office and cease operations.

Given the choice of staying or fleeing the area with my young child, I would of course evacuate and be unable to perform my job as contracted with the Commonwealth of Massachusetts Department of Public Health.

Likewise, our board of directors and members would be forced to evacuate their homes with a potential for serious physical and financial losses. As NRC staff knows, the fact that our petition did not also include a separate affidavit laying out these facts is not a fatal deficiency.

To quote from the U.S. NRC Staff Practice and Procedure Digest number 15, "If an official of an organization has the requisite personal interest to support an intervention petition, her signature on the organization's petition for intervention is enough to give the organization standing to intervene."

JUDGE SPRITZER: What was the citation, you said the NRC Practice and Procedure Digest and --

MS. TREAT: The U.S. NRC Staff Practice and Procedure Digest Number 15, Page 165. It was pre-hearing matter 78, dated January 2010. And we're happy to follow up on this and do written comments of our oral statements if that's helpful, Judge.

JUDGE SPRITZER: Only if we ask you to, I think.

MS. TREAT: Great. So I'm the executive director, who signed the petition under direction from my board. To restate, Seabrook's concrete is failing. The rate, extent and point of failure remain unknown.

NextEra's LAR seeks to prove that the concrete will continue to perform as designed.

Our contention is to ask NRC regulators to consider if that is true. We have demonstrated standing in this docket and that the organization of C-10, I and our members, along with the general public will be harmed if the concrete fails and triggers a radioactive release.

NRC staff has admitted that the C-10 Foundation made admissible contentions. So we are asking you, the agency whose mission it is to protect people and the environment, to carry out this duty. We do not believe we should be the ones defending ourselves for the right to speak. The burden should be on NextEra and NRC to ensure ongoing public health and safety. Thank you.

JUDGE SPRITZER: Very well. We'll next hear, as I understand it, from Mr. Nord on the contentions?

MS. TREAT: Yes.

JUDGE MTINGWA: Before we proceed, could I as a quick question about what she just --

JUDGE SPRITZER: Certainly.

JUDGE MTINGWA: Ms. Treat, could I ask you a question? So you are claiming both organizational

and representational standing, is that correct? You didn't say it explicitly, but it's sort of implicit. So are you claiming both?

MS. TREAT: Yes.

JUDGE MTINGWA: Okay, thank you.

MS. TREAT: Thank you.

MR. NORD: So thank you, everyone, once again for the opportunity on behalf of C-10 to address this court and the other participants here on this hugely important matter. If you all are ready, I will go ahead with my first comment on the contentions.

I'm not alone in addressing contentions, I'm one of three, but I'll be first up. So --

MR. HARRIS: Your Honor, if could interrupt. This is Brian Harris of the staff. There's an echo going on on the audio.

MR. NORD: It's just the way I talk.

MR. HARRIS: That was better.

MR. NORD: And if I look like I'm chewing on something, it's because I've got a cough drop in my mouth, so my apologies for that. So are you all ready for me to present?

JUDGE SPRITZER: Absolutely, go ahead.

MR. NORD: Very good. While C-10 is generally amenable to NRC staff's reconfiguration of

the contentions within our petition for leave to intervene, we do wish to raise some important points of disagreement with staff concerning their objections to aspects of specific contentions.

First, is Contention B. Contention B argues, this is a quote from NRC staff from their answer to us on 5-5-2017, "Contention B argues that expansion occurring within a reinforced concrete structure due to ASR is not equivalent to a pre-stressing effect.

This argument is not material to the findings that NRC must make, because the LAR depends on limits derived from the MPR/vessel large-scale test programs, such that as long as the test program was bounding of the Seabrook concrete then the limits would also be bounding" et cetera, I'm not going to read the whole thing.

C-10 must take issue with staff's rebuttal as tidy as it presents the potentially fatal flaw embedded here has to do with the health and safety of nearby residents. The Ferguson data may appear to show a pre-stressing effect for ASR-attacked reinforced concrete, but according to Dr. Brown, who is our expert witness on this matter, the change in strength of such concrete is temporal and dynamic only

in one direction, toward failure.

Since the timing of the failure of ASR-attacked reinforced concrete cannot be anticipated with accuracy, and because such concrete may be within the supporting structure of the spent fuel pool, it is incumbent of the NRC not to treat such ASR-attacked concrete as "equivalent" to pre-stressing.

To do so is to turn a blind eye to the potentially dangerous degradation that is really at work at the atomic power facility that you are responsible for in a community to whom you are accountable.

For these reasons, the importance of the distinction between the changing impact of ASR and the appearance of equivalence to pre-stressing is certainly germane to NextEra's license amendment request. And the citation that we have for Paul Brown is from our C-10 petition, Page 5, Paragraph 5 through 7.

My next comment is on Contention C. Oh, I'm sorry. This is where I step out and one of our other board members is going to address the question of petrographic analysis. So, this is will be Sarah Doenmez.

MS. DOENMEZ: Good morning.

JUDGE SPRITZER: Good morning.

MS. DOENMEZ: The presence of ASR in all buildings of the Seabrook Nuclear Power Station is assumed by NextEra. The fact of cracking in containment and the spent fuel pool is recognized. That ASR is a progressive and irreversible condition is established.

That Seabrook is operating outside its current license is established. That there is no remedy for ASR is known. Since ASR has never before been dealt with in a nuclear power station in the United States, all possible measures and an abundance of caution should be employed in handling the question of the future of the Seabrook Nuclear Power Station.

NextEra contends that its visual monitoring of the surface of Seabrook structures is sufficient, that it has put extensometers in place and that the Texas test has shown that ASR conditions at Seabrook do not compromise the operability of the buildings there. It states that it will start to collect data to study trending from 2016 to 2030 using these extensometers, which I believe are not yet in place.

C-10 recognizes and is fully aware that ASR exists at Seabrook and that NextEra monitors its

progression by visual inspections in accordance with an NRC schedule. But we are not asking that ASR merely be detected. What we need is full disclosure of the extent of ASR throughout the station, and the evaluation of that condition that can be independently assessed by impartial experts, as well as of the rate of progression since the ASR was first detected in 2009.

The only meaningful question in considering the future operability of the Seabrook Nuclear Power Station is when the ASR condition will render the station dangerous to the public. When will the walls crack through? When are buildings likely to be able to collapse? When will the rebar reinforcement corrode? How can we project this point of deterioration?

In order to get to that kind of an understanding, thorough petrographic analysis of core samples must be done in conformance with standards, I'm sorry, ACI 349.3R and ASTM 856-11.

JUDGE SPRITZER: One of our questions for C-10 was to explain what you mean by petrographic analysis. Can you provide us some --

MS. DOENMEZ: What we mean by petrographic analysis is the evaluation of the core sampling for

the interior of the concrete. As Paul Brown states, the microcracking in rebar-reinforced concrete may not be visible on the surface. The core sampling and the analysis of those core sampling by chemical means and for tensile strength are part of an analysis of petrography that is not just a visual looking at core samples.

NextEra has stated that it has taken some samples and looked at them visually, but not subjected them to that thorough analysis that is necessary to evaluate the strength of the interior of the building.

JUDGE SPRITZER: You also say that NextEra plans to discontinue, this is in your petition, that NextEra plans to discontinue core sample testing or is attempting to avoid such testing. What's the basis of that statement?

MS. DOENMEZ: NextEra took some samples in 2015 that were supposed to be submitted to the NRC for further inspection. Some of those samples were given to the NRC, others were not. They then concluded that there were going to be further core samples taken when the extensometers were going to in place, which was supposed to happen in 2016.

To the best of our knowledge, some of those extensometers were in place and some core

samples may have been derived at that time. The reporting on core sampling that we have seen to date is one paragraph in a February 2017 report. It's very clear that despite a call for core sampling, NextEra has preferred other methods and not followed through with analysis beyond a visual inspection of core samples.

I have further text on that if you'd like me to go to that point.

JUDGE SPRITZER: All right.

MS. DOENMEZ: The full extent of the information given to us on core sampling done by NextEra came in an email from Fred Bower to Debbie Grinnell in 2015, where he says, "Our conclusions regarding NextEra's core sampling and testing activities are described in NRC inspection reports, which were claimed to be available on the website. I was unable to find them.

For affected structures, NextEra staff assessed structural design attributes using bounding values for assumed ASR degradation derived from core industry test data. These evaluations were informed using the material property test results from core samples from various Seabrook ASR affected and nonaffected structures." That was in 2015. It's an

email from Fred Bower to Debbie Grinnell.

There is not a lot of detail communicated here, but it does suggest some use of core sampling. There were also mentioned in this email the fact that there were 30 cores, 20 of which seemed to have been reviewed, ten of which were not. And it appears to be the case that NextEra changed their mind about handing over five of the core samples to the NRC at that time.

JUDGE SPRITZER: Is this email you're referring to, has this been submitted to us? I'm not familiar with it.

MS. DOENMEZ: To you, it is in, I believe it is in ML14112A323.

JUDGE SPRITZER: All right.

MS. DOENMEZ: I guess my time is up, and I will turn it over to Pat Skibbee for attention to other contentions.

JUDGE SPRITZER: All right. Thank you.

MS. DOENMEZ: I'm sorry, to Chris Nord.

MR. NORD: So on to Contention D. Quoting from NRC staff answer to C-10 from the 5th of May, "Contention D is not admissible in and of itself, because it does not explain why its representative argument is within the scope of the proceeding or material to any of the findings its staff must make.

Contention D merely asserts in the abstract that the test program is not representative of the Seabrook concrete and does not explain what effect this lack of representativeness has on the LAR or on the findings that staff must make on the LAR."

So our response is as follows. Contrary to the assertions made by staff with regard to their claim of inadmissibility of C-10's Contention D for not explaining why representativeness is within the scope of the proceedings, C-10 very specifically addressed this point.

Both staff and NextEra seem to want to make the concept of representativeness something we have introduced on our own. In fact, we make plain that representativeness of new Texas concrete as the source of testing data to be used for the strength of Seabrook's three-plus-decade old concrete is a concept that NextEra made central to their license amendment request.

Because NextEra's contractor for the Ferguson project, MPR Associates, made so succinctly their understanding of the central importance NextEra has given representativeness to the issue of how Seabrook's concrete strength may be analyzed and their understanding of why they were contracted for testing

and analysis at Ferguson by NextEra, C-10 quoted from their LAR supporting document, MPR-4288, in our petition for lead to intervene.

And just to take one sample of that, "The application of the conclusions from the literature to structure at Seabrook Station can be challenged by lack of representativeness. As a result, for selected structural limit states, NextEra commissioned MPR to perform large-scale structural testing using specimens that were designed and fabricated to be representative of structures at Seabrook Station."

Obviously, NextEra uses nearly identical language concerning representativeness within the body of the LAR itself. And I have three examples. First example, "The specimens that were used in testing were structurally representative of concrete used in constructing Seabrook." That's Page 15, Paragraph 1.

The second one, "Although structural testing of ASR-affected test specimens has been performed, the application of conclusions to the specific structure can be challenged by lack of representativeness in the data." And that's Page 15, Paragraph 3.

And then the last one, "The large-scale test programs included testing specimens that

reflected the characteristics of ASR-affected structures at Seabrook Station." That's on Page 15, Paragraph 4.

C-10 elected to quote from MPR Associates in our petition to establish that the firm in charge of the testing program that forms the experimental basis of the LAR, and I want to emphasize that this is experimental, clearly understood that the appearance of representativeness was a goal of the project and therefore central to the LAR.

And in its turn, this appearance of representativeness that is central to our opposition to LAR, NextEra has attempted a kind of sleight of hand in creating a facade of legitimacy around testing purpose-formed Texas concrete for strength data in place of their own New Hampshire salt marsh variety while calling the use of Seabrook Station concrete impractical without justification.

MPR was not blind to the pitfalls of a test program that, in their own words, "is unique in the industry and purpose, scale and methodology", which is why we're calling it experimental. They name the criterion, which they and NextEra understand must be met in order for the LAR to have merit. "The application of the results of the vessel test program

requires that the test specimens be representative of reinforced concrete at Seabrook Station." And that is in our C-10 petition for lead to intervene Page 9, Paragraph 2.

Because NextEra and MPR have repeatedly stated the significance of representativeness as a criterion of the applicability of the Ferguson project to Seabrook's ASR degradation, the burden of proof is not on C-10 to establish how representativeness may be germane to the proceedings.

NextEra must defend how the Ferguson project can in any way represent the ongoing ASR degradation here on the New England coast. In C-10's judgement, it does not.

JUDGE SPRITZER: Our second question on contention of admissibility was what would satisfy C-10 that the limits derived from the LSTP results are bounding of the Seabrook Unit 1 concrete. Can you answer that?

MR. NORD: I could. We're a little out of order here. I don't mean as far as your process goes, but our intention was to go all the way through our presentations concerning contentions and then go with the questions. We want to make sure that we don't go over our time for the presentation part. But, if you

want us to answer directly now according to those questions that were submitted, I'd be happy to do it.

JUDGE SPRITZER: Yes, that would be helpful. That's our primary interest here. All of us have read your petition in detail.

MR. NORD: So you would like me to go ahead and answer the question?

JUDGE SPRITZER: Yes.

MR. NORD: Okay.

MS. TREAT: Do you have that question in front of you?

MR. NORD: I'm trying to find it.

MS. TREAT: Okay, it's right here, number two.

MR. NORD: Number two, good. Okay. What would satisfy C-10 or staff that the limits derived? Understood. Okay. C-10's answer is as follows. If large-scale testing was needed to establish data for comprehensive monitoring of Seabrook Unit 1's ASR, why was such testing of concrete sections cut from Unit 2 considered impractical while purpose-formed relatively short-lived concrete with rapidly propagating ASR from entirely different sources are to be accepted as representative?

Unit 2's concrete is for all intents and

purposes the same age, subject to the same conditions of weather and water without the radiation exposure of course, which we cite in our petition as known to have a further deleterious effect, and which would therefore have to be factored in.

C-10 has asked this question concerning why Unit 2 wasn't used literally for years now in every official form available to us with virtual silence in response. The most important quality which NextEra and MPR have failed to quantify is one they themselves have highlighted, representativeness, as I just mentioned.

Because the concrete used in Texas has so little in common with the in situ concrete of Seabrook Station, as C-10 lays out all through Contention D, the data derived has only the most general relationship to Seabrook in terms of ASR progression.

And how then can its applicability be reliably quantified in a way that is useful for Seabrook's problem. The relevance of the data derived from the Ferguson study is unknown, and for the sake of the health and safety of the community surrounding Seabrook, this should be considered inapplicable.

As to the specific question about bounding, I want to point out that, you know, bounding

has been used in a couple of different ways and apparently means a couple of different things.

Bound can mean to exceed and that's how NextEra has used it. Bound can also mean to encompass. And in the sense that the Ferguson test encompasses Seabrook for all of the reasons that we have stated and that NRC staff had actually bundled together so eloquently in their response to us, we do not consider that the Ferguson test is bounding of or is encompassing of the Seabrook ASR problem. That's as detailed as I can get it.

MS. TREAT: That wasn't the question.

MR. NORD: That wasn't the --

MS. TREAT: The question is what would satisfy --

MR. NORD: Oh, what would satisfy C-10, as we have attempted to say repeatedly in every forum as I have mentioned, is that we see thorough petrographic analysis of the concrete at Seabrook in order to have a basis to compare the data from Texas to see that it has any relationship to what is going on at Seabrook.

And if for some reason that is judged to be impossible with the active Unit 1, then you certainly have a reactor sitting right next door that's all closed up that could be used. The concrete

from that could certainly be used. It's all reinforced exactly the same way as the one next door.

It seems to us an obvious treatment of this problem and unless and until that's done, this is not bounding. And I wanted to go back to something that was said a little earlier by Ms. Doenmez about petrographic analysis, just to say that none of us are engineers. I'm sure that's obvious to all of you.

We're simply lay people who are trying to get this task done because of the extreme importance of it. So we're following the lead of our expert, Dr. Paul Brown, who has made very clear that the ACI and ASTM standards that we have already cited for you are the ones that he believes should be followed.

And to just take one piece of that, for instance, testing crack width indexing and using extensometers is not in itself to be considered thorough petrographic analysis. It's a part of, but to call that petrographic analysis is not to get us the whole picture of the degradation of Seabrook.

JUDGE MTINGWA: Is it your understanding that the concrete used in Unit 2 precisely the same as the concrete used in Unit 1?

MR. NORD: My answer to that is, you know, again, I'm not a concrete expert. I just know that to

the best of my knowledge, the concrete was gotten from generally the same site for both units. They were poured within a matter of years of each other, as opposed to a 30-year difference.

Both of those units have stood out in the weather, have been subject to degradation having to do with inundation from the salt marsh. They've been subject to brackish water. All of those things that have happened to Unit 1's concrete has happened to Unit 2's concrete, except for the radiation exposure, which according to NRC's own documents, which we have cited in our petition, indicate that radiation can have a deleterious impact. And that that impact will actually be magnified by ASR.

So it's going to be a much closer fit than the concrete that is purpose-formed that is relatively short-lived that was used in Texas for the Ferguson study subjected to 28-day tests. It can't get any closer than that.

I'm getting hand signals from my boss over here. We want to just make sure that we're not way over time. We have one more important presentation that we want to make --

JUDGE SPRITZER: Before you do that, Judge Trikouros has a question.

MR. NORD: -- so, you know, I'm trying to answer them, but hopefully, you're going to give us the time we need to get through all this.

JUDGE TRIKOUROS: We'll give you the time.

MR. NORD: Okay, thank you.

JUDGE TRIKOUROS: In the cover letter that accompanied Dr. Brown's analysis --

MR. NORD: Yes.

JUDGE TRIKOUROS: -- basically it said that C-10 and UCS have reviewed Dr. Brown's analysis, and they urged the NRC to deny the license amendment until certain things happened.

There were three specific things that were called out. One was that appropriate tests be carried out, which you've been discussing now. Two, to develop a specific system for monitoring Seabrook's structures. And, three, to develop a specific plan for responding to the future progress of ASR.

Now, of those three, is the appropriate testing the only one that concerns you at this point?

MR. NORD: Well, I'm a little stumped trying to answer this question, because my understanding of this hearing was that our point was to speak in opposition to adoption of the LAR. And you're asking questions that are leading us beyond the

license amendment request itself. Can we have a minute to discuss between us?

JUDGE TRIKOUROS: Well, let me point out that one of the major purposes of the LAR was to develop a specific monitoring system, so many of the tables in the LAR are dealing specifically with monitoring.

MR. NORD: Absolutely.

JUDGE TRIKOUROS: All right.

MR. NORD: Correct. So, you know, is the -- okay, I'm seeing taps that I should not say another word until we have a chance to speak, so we're going to mute for a minute.

JUDGE SPRITZER: All right, go ahead.

(Whereupon, the above-entitled matter went off the record at 10:43 a.m. and resumed at 10:44 a.m.)

MS. TREAT: I'm sorry, was that Judge Spritzer that asked the question or was it about the cover letter? Were you referring to the batch of board comments that were submitted on March 9th or about our petition to intervene on April 10th?

JUDGE TRIKOUROS: Yes, this was October 21st letter to Justin Poole from the then executive director of C-10.

MS. TREAT: Okay, that was before. So it was the October letter. Okay, it was about submitting the comments.

JUDGE TRIKOUROS: And it attached the Dr. Brown analysis.

MS. TREAT: Okay. Was that sent as an appendix to our filings this spring or it just stood alone as an earlier submission?

JUDGE TRIKOUROS: One second.

MS. TREAT: You don't know? As I mentioned, I'd come on board here in March and our board has been leading the effort, as you can see, on the contentions. So it's the October 2015 that Sandy submitted.

JUDGE TRIKOUROS: Yes, you did not send us that document, but you did reference it, and we were able to find it in --

MS. TREAT: It was referenced in our comments, and it was what -- yes.

MR. NORD: Okay, so it's October 15th, correct? Of what year, October 15th?

MS. TREAT: Did you say that was 2015 or '16?

JUDGE TRIKOUROS: October 21st of '16.

MS. TREAT: '16, last fall. We'll try to

keep it brief. Thank you.

(Whereupon, the above-entitled matter went off the record at 10:46 a.m. and resumed at 10:47 a.m.)

MR. NORD: My apologies to you all, we have not been able to find the specific document so that we can see it. I'm going to try to state as simply as possible that our interest is to see the Nuclear Regulatory Commission and, through the Nuclear Regulatory Commission, the licensee follow existing well-established standards for petrographic analysis that are the standards from ACI and ASTM that we mentioned above, those apply specifically to nuclear plants.

That's what we would like to see. That's what our expert witness has called for. And we're going to get much closer to knowing what's actually going on with the ASR problem at Seabrook if that happens. And unless and until that happens, the results that we find from the Ferguson study are not bounding of the Seabrook ASR problem for the reasons I've already stated.

JUDGE TRIKOUROS: Okay. The logic I'm trying to get through is this. There is a monitoring program in place identified in the LAR. That

monitoring program has certain limits, acceptance criteria that are derived from the large-scale testing program.

And your contention is, and Dr. Brown's comments are specifically stating that that test program data is not representative of Seabrook. Therefore, anything associated with it would not be appropriate for Seabrook.

However, you also state, and I believe Dr. Brown also states that the large-scale testing program would be acceptable if there were appropriate testing done on the Seabrook concrete itself. Such, and I'm drawing a conclusion here, such that there would be let's say a benchmarking of the testing program to the plant. Is that correct?

MR. NORD: As I said before, the testing that was done at Ferguson, its applicability to Seabrook is unknown. It's unknown. Because we don't know, as you said benchmarking, we don't know what its relationship is to Seabrook.

We need a study done that involves actual Seabrook concrete in order to have any idea what relationship the Ferguson test has to Seabrook concrete, first of all. Second of all, we need to know in the kind of testing that was done at Ferguson,

where the tipping point is, where the failure point is beyond the tipping point, because the Ferguson test did not test out that far.

And we have comments that we want to make that I am not prepped to do, but one of our presenters today is set to do that when we have a chance to get to that. But, you know, there are certain things that we have called upon you all to institute, so we're trying to get to that. I'd like to turn over the chair here to Sarah Doenmez, who is going to try to complete your answer.

JUDGE TRIKOUROS: Before you do that, it appears that, if appropriate tests were done to your satisfaction, then you would consider -- and assuming the answers were of an appropriate benchmark to the test data, then you would consider the testing program representative and therefore, the LAR monitoring program would be acceptable. Does that logic follow correctly?

MR. NORD: I think, based on the questions that have been put before us as far as certifying the LAR or not certifying, we're going to remain standing in opposition to the LAR as it was presented to us. So I'm going to relinquish the chair here to Ms. Doenmez.

MS. DOENMEZ: Thanks. I just want to address the aspect of your question that has to do with the testing as proposed in the LAR. First of all, I'll just make it clear that we only saw a nonproprietary version of the LAR so that the test data was blanked out in certain places.

But, I will say that the LAR envisions a program of visual monitoring of the structures of Seabrook on a tiered program of Tiers 1, 2 and 3. They list even the containment building, which is known to have severe outer cracking and building deformation as a Tier 1 problem, the least of the severe problems, which means monitoring, I think, only on the scale of time of every year.

We would not view external visual monitoring, even if it does use the cracking index, as sufficient testing whether of Ferguson or of Seabrook concrete unless we have some kind of thorough petrographic testing that uses core sampling over time, petrochemical analysis for shearing and for tensile strength.

None of Seabrook's current comments or NextEra's current comments on Seabrook talk about the tensile strength of that building. Until we have testing that looks at the strength of the rebar, we

would not be satisfied with the testing program outlined in the LAR.

JUDGE SPRITZER: Let me ask this, Question number 11 on contention and admissibility, we asked you whether you have requested access to the proprietary versions of the LAR documents, the License Amendment Request documents. Have you done that? And if so, what's the status of that?

MS. DOENMEZ: We have done that, and Pat Skibbee can speak to that more thoroughly in a moment. I just want to also mention that ultrasonic testing is another form of petrographic analysis that we would consider called for.

In other words, the whole point being that we need to know what is going on in the interior of the concrete, damage that may not be visible on the surface via surface cracking. So I will turn this over at this point to Pat Skibbee to address that question about our requesting the more proprietary data. Thank you.

MS. SKIBBEE: Hi, Pat Skibbee. So I'll try to answer, which is a yes or no question, have we attempted to get a non-proprietary version of the LAR, and the answer is yes. We filed a 2.206 in order to do that. It's May 12th, it's actually 2.204, sorry.

And we have not had a response to that, to Mr. Victor McCree, director of operations. We have not had a response to that. So yes, we have attempted to do that.

JUDGE SPRITZER: All right.

JUDGE TRIKOUROS: Well, once again, I just want to clear this up before we move on. The focal point seems to be that if appropriate tests were done, that the majority of your concerns would disappear, assuming the appropriate tests showed that the large scale test program was adequate. Is that a correct statement?

MS. SKIBBEE: I think that's not a correct statement. I think as other people have already spoken to, the idea of using formed concrete in Texas as a stand-in for concrete in a disintegrating nuclear power plant is absolutely not appropriate.

I think this is what should happen. I think the LAR should be rejected, and what should happen is that the NRC should take on the responsibility which I believe should belong to the NRC for creating a test protocol for ASR that would apply to all nuclear facilities in the country.

I mean, what we have now is we have the Applicant, NextEra, creating or attempting to create

regulations to control itself.

JUDGE TRIKOUROS: Well, when I say appropriate tests, I'm not talking about experimental tests. I'm talking about tests on the actual concrete at Seabrook itself. Okay, so I'm not referring to the FSEL program.

All right, and that's, in reading the material that you've provided us, it sounds as if that was what you wish to happen, assuming it's not happening. That is what you wish to happen. And that would give you confidence that the large scale test program is acceptable, or let me say representative.

MS. SKIBBEE: No, I can't see how those things are related to each other actually.

MS. TREAT: I would say that it's not only the testing, but the sharing of the information, the results of the tests with the public as appropriate so that we know where is the point of danger.

JUDGE TRIKOUROS: Well, let's say for the sake of argument that that information was available to you. Would that satisfy it?

MS. SKIBBEE: You would have to explain what you mean by the relationship between testing the actual concrete in Seabrook compared with testing, you know, preformed concrete.

MS. TREAT: He's talking about testing in, he's talking about testing in --

MS. SKIBBEE: No, I think you're talking about if there were adequate testing at Seabrook, would that convince us that the Ferguson Structural Engineering Laboratory tests are valid, is that right? Is that the question?

JUDGE TRIKOUROS: Right. Well, that was your contention, that it would not be valid until such testing were done.

(Off microphone comments.)

MS. SKIBBEE: No, that would render the FSEL testing irrelevant, which I believe we contended is irrelevant. Somebody else want to jump in here?

MS. SKIBBEE: Am I answering your question? Does someone else want to speak to this

JUDGE SPRITZER: We have obviously kept you there with questions passed the 30 minute limit. Do you have any other of our questions that anybody is going to address?

MR. NORD: There's two other contentions.

JUDGE SPRITZER: Two other contentions, all right. Then is one person going to speak to those?

MS. DOENMEZ: Yes.

JUDGE SPRITZER: Okay, why don't we hear from that person, and at that point I think since we have run over, we'll take a break. Let me just quickly ask the staff at NextEra, we didn't provide a specific order for you. Which of you, have you discussed among yourselves who will speak first, staff or NextEra when we do get to you?

MR. HARRIS: This is Brian Harris for the staff. We had not discussed amongst us who would go first. I would probably defer to NextEra if they wanted to go first since it is their license amendment that's at issue.

JUDGE SPRITZER: I think that makes sense. Is that all right with NextEra?

MR. LIGHTY: We're fine with either, Your Honor. We thought it might make sense for the staff to go first to respond to the Board's question about their proposed reformulated contention so that we could follow them and respond to those remarks. But we're fine with either order.

JUDGE SPRITZER: Well that does also have a certain appeal. Is that all right with the staff for you to go first and discuss your reformulated contentions and then NextEra can address their objections to both the original contentions and your

reformulated contentions?

MR. HARRIS: That's fine with the staff, Your Honor.

JUDGE SPRITZER: All right. As I said, we'll try and finish up with the Petitioners now, and then we'll take a short break and come back and start with the staff. All right, Petitioners with the last, you said you had two additional questions you wanted to, two additional contentions you wanted to talk about?

MS. SKIBBEE: Yes, please. Yes, this is Pat Skibbee speaking. So good morning. I think we've sort of done our good mornings, but I do want to say that we appreciate the opportunity to bring these things to light.

The NRC has kindly suggested that C-10 combine it's ten submitted contentions into one general contention. C-10 has done that to some extent, and I want to continue in that vein while stressing two specific areas of serious concern in this section of our testimony.

The purpose of this proceeding from C-10's perspective is to support our position that the NRC, through its Atomic Safety Licensing Board, should reject NextEra's license amendment request on the

grounds that it does not fulfill the critical function of providing adequate testing and monitoring procedures for the ASR damaged concrete structures of the Seabrook Nuclear Power Plant.

I'll begin by using the NRC's wording to restate our major and inclusive contention, "The MTR/FSL large scale test program is not bounding of the Seabrook concrete because of the age of the Seabrook concrete, the length of time that ASR has propagated in the Seabrook concrete, the effect of water at varying levels of height and varying levels of salt concentration on the Seabrook concrete, the effect of heat on the Seabrook concrete, and the effect of radiation on the Seabrook concrete.

As a result, the proposed monitoring acceptance criteria and inspection intervals are not adequate." C-10 maintains that the testing is not bounding of the Seabrook concrete for the reasons stated above because at this point testing that has been done, and the testing and monitoring proposed in LAR-1603 is insufficient to establish the actual status of the 40 year old concrete at Seabrook Station.

Therefore, it is impossible to know whether the testing is actually bounding of the

situation at Seabrook or not. In support of this position, the following information is offered. First, the concept of tipping point in failure of any sort.

Have you read the responses to this area of our contention in the NRC response? I feel need to explicate the concept. Tipping point is the point at which failure is inevitable. Therefore, it precedes actual failure.

The amount of time at which, excuse me, the amount of time and margin by which it precedes actual failure depends on the circumstances and the materials in question. This concept is totally missing from the LAR.

There is a definite lack of acknowledgment that such a tipping point or a following failure could ever be reached. It is impossible to know that the plant is operating within a margin of safety when neither margin is known.

LAR in Section 2.51 lays out limits to ASR damage that are acceptable. The percentages are redacted. "The ASR expansion limit stays are summarized in Table 4." The LAR then states that the test program did not, "test out to ASR levels where there was a clear change in limit state

capacity/failure," Page 16 of 73.

Instead, the LAR states that, "Maintaining these limits is assured by periodically measuring through thickness expansion areas affected by ASR." The point here is that repeatedly the LAR purports that the structures at Seabrook are operable but degraded as long as ASR damage remains below the higher degradation limits found or imposed on the "representative" test samples in Texas which are stated to be higher and more severe than the actual damage at Seabrook.

But it is acknowledged by all the ASR is progressive and non-self-limiting. Therefore, what is the future scenario when the monitored ASR damage at the actual plant exceeds the percentages in Table 4. This is the area that is completely ignored by the ASR.

JUDGE SPRITZER: Well, my understanding, and the staff or NextEra can correct me if I'm wrong when we get to their presentations, but my understanding is the ASR limits in Table 4 are essentially intended to make sure you never get to the so-called tipping point, that is they kick in at a point before there would be the type of very serious degradation that you're referring to. Is that your

understanding also?

MS. SKIBBEE: But my question is --

JUDGE SPRITZER: We just, we didn't hear your answer.

MS. SKIBBEE: Your opinion and mine are the same. But the question is ASR doesn't stop because limits are reached, because it exceeds Table 4. The ASR continues.

JUDGE SPRITZER: What's your understanding of what they'll do when we get to the limits in Table 4? My understanding is they will basically have to reevaluate at that point. Is that your understanding also?

MS. SKIBBEE: I don't think reevaluation answers the danger of crumbing concrete. And that's exactly my point about the LAR, it does not address what the real issue is. This is a progressive non-self-limiting, rate unknown situation that's going on at Seabrook. And because you write a limit in Table 4 doesn't mean the ASR stops. It doesn't stop. It keeps right on going.

JUDGE SPRITZER: So it sounds to me like your real complaint is you don't know what's going to happen next if you ever do get to the ASR limits in Table 4, is that a fair statement?

MS. SKIBBEE: That is a fair statement, and that should be the concern of all involved.

JUDGE SPRITZER: All right.

MS. SKIBBEE: That is the chief concern, exactly. Shall I go on?

JUDGE SPRITZER: If you have anything further.

MS. SKIBBEE: I do.

JUDGE MTINGWA: Let me ask you a question, ma'am. How would you go to the tipping point? What would you do to do what Dr. Brown called turning the concrete into mush and it just crumbles.

What would you do? Suppose there is no tipping point anywhere in the -- by stretching things even far beyond where they are now because you're talking about radiation damage, heat damage and so forth. How would you get to the tipping point?

MS. SKIBBEE: Well, we don't have to get to the tipping point. The concrete damaged by the alkali-silica reaction gets to the tipping point all by itself.

JUDGE MTINGWA: No, but I mean what would you suggest that NextEra does to test some sampling of concrete toward the tipping point?

MS. SKIBBEE: Well, what the LAR says is

that the testing that was done at the Ferguson Structural Engineering Laboratory, it says that they did not have sufficient samples and it was impractical to test to the tipping point or point of failure.

We really don't understand if they had a lack of samples why they couldn't make more samples, or why it would be impractical to keep on testing until you get to a point of failure because logically, and this is covering some of what I'm going to read, I mean, logic will tell you that it's going to get to the point of failure.

The question is when is it going to get to the point of failure? And the testing that was done at the lab on the, sorry, artificial concrete manufactured for that purpose, it wasn't even tested to that point.

JUDGE MTINGWA: Okay, but --

MS. SKIBBEE: We don't understand --

JUDGE MTINGWA: But you have problems with the large scale test program. So even if they reached the tipping point there, why should you believe that would be applicable to the Seabrook Unit 1?

MS. SKIBBEE: That is a very good question. And the presumed answer is correct, it's still irrelevant. But our job today is to explain why

this license amendment request should be rejected, why it is not adequate.

And therefore we're trying our best to focus on that. So that is a fault in the LAR. I mean, it's obviously a more general fault in the whole situation. But for purposes of this proceeding, it's a false in the LAR.

JUDGE SPRITZER: Let me ask this of you, and again maybe the staff and NextEra can help me with this also. If they did get to the Table 4 limits, wouldn't they then be outside their current licensing basis even if the LAR is approved? That is they can only go out to those limits --

MS. SKIBBEE: Right.

JUDGE SPRITZER: -- and then they're back outside, or they're back to square one essentially, they're back outside their current licensing basis, isn't that right?

MS. SKIBBEE: That's right. That's right. And so --

JUDGE SPRITZER: At which point the NRC staff, the NRC would have to decide what action is appropriate, wouldn't they?

MS. SKIBBEE: Yes. And while all those things are true, they do not stop the progression of

the LAR and the concrete.

ASR, what did I say? Sorry, ASR. Let me see if I can skim through the rest of this because some will be repetitive of our conversation. Well I just, this is repetitive but I'm going to say the sentence anyway.

The LAR does not address the end stage scenario even though it is logically clear that someday it will occur. There is no way to stop ASR, it will keep eroding the plant, not only through its operational license but for the foreseeable future and beyond.

Let me summarize for time's sake. The rate of progression is unknown. We don't know if it's linear, we don't know if it varies, we don't know if it can increase or decrease. These things are just not known at this point.

There's another vital omission from the LAR and supporting MPR documents which relates directly to the overall question of representativeness of the Texas manufactured concrete to the actual Seabrook concrete.

There is no chart or table or text comparing the chemical and molecular composition of the two concretes. It is stated in the MPR testing

that all concrete used in the large scale Texas test was exactly the same. Elsewhere it is stated that Seabrook concrete is inhomogeneous which I believe means heterogeneous, that is different mixes were used in different parts of the plant.

There were 12 different mixes used in Seabrook according to MPR 4153 Page 22 Section 3.3.1. Therefore, representativeness has not been demonstrated in the LAR. In a number of areas in the LAR, NextEra states that the concrete made for testing was, "designed to be as representative as practical of the concrete at Seabrook Station including reinforcement detail."

It is not explained what this means or how the several concretes differ. What are the practical considerations that prevented FSEL from replicating rather than making it representative of the Seabrook concrete?

What are the factors that presented FSEL MPR from testing to the point of failure? LAR states that it was the number of samples, at least in part, that prevented such testing. Again, could they not have made more samples? Let me see if I can skim through this part.

From the extent science and information,

C-10 believes there is no way to completely accurately predict the tipping point or point of failure. However, it is clear that this LAR fails to even attempt to get to that final finding.

This area of our contention is within the scope of the proceeding and it directly addresses stated parameters of the LAR. It is material to what the NRC staff must find to determine the validity of the LAR since it goes directly to the stated testing protocol of the LAR.

It is supported by citation to the LAR, MPR 40153, concrete expert Dr. Paul Brown, and oral statements by NRC staff at the June 15th, 2017 meeting.

The second, and this is way shorter, the second specific area under the general contention I want to comment on is the lack of soundness of the LAR's proposed structural monitoring program inspection intervals.

Table 5 in Section 2.5.1 proposes a fixed schedule monitoring based on current crack index observation. The intervals vary from 6 months to 30 months, depending on current visual observation. But at this time, there is no evidence or knowledge on the speed of disintegration of the concrete or the

anticipated rate, steady, increasing, decreasing of ASR progression.

Given current technologies, including petrographic examination and the potential for wider than proposed use of extensometers, the LAR should have proposed an ongoing monitoring schedule of all parts of Seabrook Station.

To not look at any part for 30 months is not sensible. Due to this inadequate monitoring schedule and due to the lack of current knowledge of the seed of progression ASR at the plant, LAR 1603 needs to be rejected because it does not adequately account for the probable changes to the actual Seabrook concrete.

Therefore, it does not fulfill the NRC's stated mission of protection of public health and safety in the lack of adequate monitoring result in leakage of radioactive materials from any structure of the plant. The health of those within the ten mile proximity of the plant is threatened by that leakage.

Rejecting the LAR addresses that injury because it that is a better monitoring system, could foresee and present such leakage. This contention is within the scope of this proceeding and it addresses directly the structural monitoring program of the LAR.

It is material to what the staff must decide in order to determine the validity of the LAR since it points out a serious flaw in it. Citations are used from the LAR itself, and this part of the contention raises a genuine dispute with the proposed LAR.

JUDGE SPRITZER: All right, let me ask my colleagues if they have any further questions at this point. Otherwise we'll take a break and then hear from the staff.

MS. SKIBBEE: Wait, so just a sec. Somebody wants to say something here.

MR. NORD: There was one more comment on contention, which you can read if you want to. I mean --

MS. SKIBBEE: Oh, it turns out we have one more comment on contention which I hadn't realized. You want to do it?

MR. NORD: Yes, I can do it. It's very short.

MS. SKIBBEE: Okay, Chris Nord is going to do it and he says it's very short.

JUDGE SPRITZER: All right.

MR. NORD: I promise.

MS. SKIBBEE: He promises.

MR. NORD: Thank you for your indulgence, gentlemen. It will only take a minute or two. On Contention F, Contention F, this is a quote from NRC staff's answer to C-10 on Page 42.

"Contention F is outside the scope of the LAR because Seabrook has an existing structures monitoring program under the maintenance rule of its current license.

"This program already inspects for evidence of rebar corrosion through routine visual inspections for corrosion products on the concrete surface and through opportunistic visual inspections of exposed rebar.

"C-10 does not identify any evidence of potential rebar corrosion to support its assertion that the rebar is undergoing corrosion. The LAR does not propose to change the methods for monitoring rebar corrosion."

So our answer to that is contrary to staff's assertion that we have not identified, "any evidence of potential rebar corrosion," C-10 must point out that the known presence of ASR is evidence that rebar corrosion is underway.

Within this contention, that is contention F, Dr. Brown lays out the basic chemistry involved

which I will not repeat, but it leads him to conclude that, "Given the service environment at Seabrook, I think there is a reasonable basis to anticipate that the reinforcement at some locations is likely to have undergone significant corrosion." That's of our petition Page 13 Paragraph 1.

Furthermore, as is the case with ASR-attack itself, the reliance on visual inspection noted by staff as the primary inspection tool cited above is not sufficient for a determination of the presence of corrosion, nor is it sufficient for a determination of the presence of ASR as we also know.

As described by Dr. Brown, "The accumulation of chloride which is an agent of depassivation and corrosion in the Seabrook concrete can be established by petrographic means using scanning electron microscopy." And that is in our petition, Page 12 Paragraph 9.

NextEra has made the presence of the reinforcing steel a component of the rationale for needing the experimental testing program at Ferguson that is central to the license amendment request.

Furthermore, their characterization of the, "pre-stressing effect" that they use to rationalize the voracity of the test data derived from

Ferguson relies on the continued strength of the embedded reinforcement.

Therefore, the apparent insufficiency of the corrosion monitoring program should be addressed as part of the license amendment request.

JUDGE SPRITZER: All right, let me see if my colleagues have any further questions. All right, we'll take a, follow my own rule about silencing the cell phones. We'll take a 15 minute break at this point. We'll come back at 11:30 and start with the staff.

MR. NORD: We'll find you, thank you.

MS. SKIBBEE: Thank you.

(Whereupon, the above-entitled matter went off the record at 11:17 a.m. and resumed at 11:31 a.m.)

JUDGE SPRITZER: All right, looks like we have everyone back and we're ready to move on and hear from the NRC staff. And that would be from Mr. Harris.

MR. HARRIS: That's correct, Your Honor, and thank you. There are a couple of issues I wanted to address before getting into the main presentation just to cover a couple of things that came up in C-10's presentation.

The first thing that I want to emphasize is that a lot of the arguments that you were hearing earlier was about the NRC staff's review and the NRC's requirement to make NextEra perform a particular analysis.

The issue in this proceeding is the adequacy of the license amendment, not the adequacy of the staff's review. We had a chance --

JUDGE SPRITZER: While you're on that, if you could, if I could just interrupt for a second, what is the status of the staff's review at this point? Are you able to enlighten us about that?

MR. HARRIS: The staff has begun its review. There is still a lot of outstanding review that needs to be done, including some additional information that the staff is seeking that will help to inform its review.

I think right now the anticipated time for when the staff might make a decision on this license amendment is towards the fall of 2018.

JUDGE SPRITZER: Fall of 2018?

MR. HARRIS: That's correct, Your Honor. There is a number of calculations that remain outstanding that the staff needs in order to complete its review.

JUDGE SPRITZER: All right, please proceed.

MR. HARRIS: With that, proprietary axis that came up earlier it's not, we believe that C-10 was referring to a 2206 petition that they had filed previously. That 2206 petition has been denied.

In this proceeding there was a NRC notice for the Federal Register that provided the instructions for how to obtain proprietary information in this license amendment proceeding. The staff is not aware and did not receive any request from that notice about obtaining proprietary information.

However, should the Board grant the petition, we would expect that a protective order would be put in place for access to that proprietary information going forward.

JUDGE SPRITZER: Okay, thank you.

MR. HARRIS: And then the one other issue that came up is the practice and procedure digest. We had a chance to go examine that case during the break. It refers to a Georgia Power case that was Atomic Safety and Licensing Board. The cite for it is 34 NRC 138.

That case found standing because of an affidavit that was submitted in a very recent related

case. However, since that case was originally decided, it's been superseded by a Commission case CLI 1007 which states that standing can only be determined based on the pleadings in the case at hand. So it was not just from the signature on the pleading in that case.

Moving on to the main presentation, the first thing I would like to address with standing is that petitioners in an Atomic, in an NRC proceeding for a license amendment have a number of different ways that they can establish standing as an organization.

They can establish it through their own organizational interest, or through their representational interest. And then separately, you can show standing either through a proximity presumption or through the traditional judicial concept of standing.

In this particular case, and consistent with the Commission case law, is license amendments generally aren't entitled to a proximity presumption with the exception of a few cases that have come out.

That was being of course original EPUs, additional packing of spent fuel pools where the Commission has determined that there is an obvious

potential for offsite consequences from those kind of license amendments to show in a standard license amendment proceeding you would need to show that the proximity presumption applies by showing that there's an obvious potential for an offsite consequence from this license amendment.

And it's the staff's position that this license amendment is not going to result in an obvious potential for offsite consequences is that the concrete that is being used is not being proposed to be modified in any way.

The actual analysis of record that is being applied to the concrete is remaining the same and that all NextEra is attempting to do is to provide sufficient technical analysis to show that they can analyze the ASR loads within the concrete structure using those code cases which I believe are HCI 341, I'm sorry, I just -- it was mentioned earlier, which those code cases don't have a way to analyze the ASR issue currently.

Without that obvious potential for offsite consequences, the proximity presumption does not apply. Therefore, C-10 needed to show the judicial concept of standing which are traceability, I'm sorry, the ATI code case I was referring to is 318.

The traditional concept of standing which is, I'm sorry, injury in fact, traceability, and redressability. It is --

JUDGE SPRITZER: Before you go on to that, let me ask a question about the proximity presumption. Most cases, at least most that I've seen involve individuals who reside within a particular distance of a facility that's at issue, nuclear power plant that's either being licensed or has a proposed license amendment.

Does it make any difference in this case we're talking about a corporation? I mean, suppose we disagree with you and think there is an obvious potential for offsite consequences, does it matter that C-10 is an organization as opposed to an individual?

MR. HARRIS: So it would depend. And that's because an organization itself could show that it is entitled to standing based on its representational standing for its members who are, you know, are entitled, you would evaluate their standing based as persons so that it's not any different when you look at it from that particular perspective.

However, they could also show based on their own interest in this proceeding. We think that,

you know, an organization is different than a person in terms of that proximity presumption in that they're not entitled to that same type of analysis that they would need to show that their harm is to the organizational interest.

That has been the traditional way that the federal courts have taken it if they need to show some particular harm to the actual organizational interest itself.

JUDGE SPRITZER: Federal courts don't have a proximity presumption, or at least I've never seen one. In the context of the proximity presumption, let's suppose hypothetically that the petitioner is a brick laying company, but they're within the ten mile area, whatever area is alleged to have an obvious potential for all offsite consequences, wouldn't that be sufficient to establish their standing of whether their particular organizational interests have to do with, you know, making a profit on laying bricks, or in the case of C-10, monitoring activities at Seabrook.

In terms of the proximity presumption, does it make any difference?

MR. HARRIS: Well it does, just like it does for people is that a person could be entitled to

proximity presumption based on their business interest within the -- if we just use the traditional 50 mile range.

So if they show that they have significant business interest, a person could establish, or a significant transit across that area could establish a proximity presumption.

So you would need to look at that particular corporation's interests within that 50 mile range. So if it's merely a postal address, that might not entitle it to the proximity presumption. If it was a, you know, more substantial action that's located there, that would be I think a different analysis.

JUDGE SPRITZER: I mean, the case of C-10 they say, and I don't understand you dispute, that their office is located within approximately ten miles of the plant. Am I correct that that's not an issue here, that their office is located approximately ten miles from Seabrook Unit 1?

MR. HARRIS: If I understand the question, we're not disputing that their office is located so close to the Seabrook Plant.

JUDGE SPRITZER: And it seems that based on what they have provided us in the way of

information, that they're, it's more than a post office address. It's where their executive director works, it's where their only office as far as I can tell is located.

They also say they do monitoring under contract with the State of Massachusetts, they do radiation monitoring of the plant. That seems like a good deal more than a post office address. Wouldn't that be sufficient to, if the proximity presumption applies, if there is an obvious potential for offsite consequences, wouldn't that be sufficient to, for them to be able to use the presumption as an organization?

MR. HARRIS: So while not agreeing that the proximity presumption applies, you know, we think that it's somewhat of a test that it's not an issue that has come up previously where most organizations have sought it through representational standing and provided the appropriate affidavit.

It is potentially a fair reading of the regulation. But I think that because the regulations do put out, account for corporations being treated as person within the regulation. So it is a difficult distinction to make.

However, we're not sure that they even made it because they needed to show that initial set

that in a license amendment proceeding that the proximity presumption applies to them.

JUDGE SPRITZER: All right.

MR. HARRIS: Moving on to the judicial concept of standing, here you need to show an injury in fact from this license amendment proceeding. And the staff's position on this license amendment proceeding is that C-10 has failed to plead any injury in fact to itself in its initial pleading, and that the additional supplementation that occurred in the reply should not be form the basis of any standing finding for C-10.

The Board had asked us to review two cases, Bell Bend and South Carolina, and the staff's position on those cases is that they are neither controlling and they are distinguishable from the issue here.

Both South Carolina and Bell Bend do contemplate that in the reply --

JUDGE SPRITZER: Sorry, let me just ask first, are those still, I understand your argument that they were distinguishable, but have either of them been overruled by the Commission? I wasn't able to find that, but maybe you know more than I.

MR. HARRIS: No, we weren't saying that

they're overruled, but we don't think that they're controlling in this case under these facts.

JUDGE SPRITZER: Okay, explain why that's the case.

MR. HARRIS: South Carolina and Bell Bend both contemplate that petitioner can supplement their standing in the reply. But in both those cases, the supplementation was in direct relationship to the arguments that were made in the initial pleading. So they were merely expanding on arguments that they had already made.

If you go to, I'm sorry, ELI 0819 which is what the staff cited, the Commission has stated that you can't expand an argument or create new arguments in standing in your reply.

And we feel that C-10's arguments during the reply arguing for these particular injuries that they had never brought up before, arguing for representational standing based on Ms. Treat's address and Ms. Treat's child, cannot be supplemented into the reply and cannot form the basis of that, and they should be stricken. To know why there's not an injury in fact --

JUDGE SPRITZER: Let me ask on that just one further question. Ms. Treat provided her specific

location in the reply I think saying she actually lives 3.5 miles from Seabrook. I understand your position about representation withstanding.

But that is also potentially relevant to impact to the organization if their executive director has to move out of the area, that could certainly impact the organization. Is that something we can consider in the context of organizational standing, because they certainly raise that in the petition.

MR. HARRIS: Well, I don't know that that actually addresses that issue. She did not provide her address. She provided a general location. It is incumbent on the petitioners to provide the very specific details.

There is no way for the staff or for NextEra to evaluate that statement for the truth of it to provide any argument that it's not true. It's vague and undefined. So they really have not provided an opportunity for the staff or for NextEra to make an argument that was opposed that particular part.

In terms of the organizational standing, while she might need to be evacuated should you have an accident of some kind, I don't believe that that means that she couldn't perform her duties as an executive director.

Of course, it could impact their office location. But that doesn't mean that the duties still cannot be performed. This happens to, you know, if you do have the untoward event of an accident and offsite release, people would, you know, would be expected to be evacuated.

But that doesn't mean that their job speed -- in this particular case they're performing real-time monitoring, education and information. That could continue despite, you know, having to be evacuated.

JUDGE MTINGWA: But if there's a catastrophic accident, they could lose their monitoring equipment, they could lose vital records which is probably more important. That could definitely be substantial damage to the operations.

MR. HARRIS: I don't believe that I would dispute that the monitoring equipment might be damaged from a catastrophic accident, or that records that have not been backed up could be lost. But that is when you look at the accidents that they've proposed in their reply as the reason why they might be harmed, they assume that of course the ASR is occurring and the concrete is losing its structural capacity.

But then they layered on that an

unexpected earthquake. The staff interpreted that to mean an earthquake that Seabrook has not been designed for, so a beyond design basis earthquake. That is simply outside the scope of the license amendment and what Seabrook is required to do.

Of course there is an earthquake that we can assume that is large enough that could cause, you know, structural damage. But Seabrook is only required to protect up against the design basis earthquake.

JUDGE MTINGWA: No, but I'm thinking in terms of they make the argument that the concrete could turn to mush, and the whole building collapses. And that kind of a catastrophic accident which they do refer to in their original petition, they could, the organization would suffer substantial damages.

MR. HARRIS: Right, but the license amendment itself, the requirements for the concrete that has been impacted by ASR are not being changed. So they're going to continue to perform their same intended functions should that concrete at some point exceed its ability to maintain its structure and protect the equipment within, there are limited conditions of operation that would require the plant to shut down before you were allowed to continue to

operate with a concrete that was not in compliance with its licensing basis, putting aside the small caveat that right now we consider the concrete to be operable but degraded.

So we know it's outside its licensing basis, and this is what this license amendment is attempting to change so that it would come back within its licensing basis. So for example in the containment enclosure building, should you lose its functionality, the plant's required to shut down within 12 or 30 hours depending on the particular nature of how you lose that function in being cold standby.

So you can't assume that the concrete is, that they're operating well outside their license, and then also assume another accident because their license would require them to shut down once they lost that function of the concrete.

JUDGE SPRITZER: Let me see if I'm following this. If the license amendment request is denied, they would have, Seabrook Unit 1 would have to shut down, is that right?

MR. HARRIS: That is not what I'm saying. What I'm saying, the concrete right now is considered operable but degraded. So that means we see the

concrete that's been impacted by ASR to continue to perform its design function.

However, it is technically not in compliance with its licensing basis because the ASR is not accounted for in the analysis of record that ACI 318. It does not provide for a way to analyze ASR issues. But the concrete itself continues to perform its design basis function.

At a point where that concrete no longer could perform that design basis function, and the reason I'm being a little general is that there are a lot of different structures that are impacted and each one has a different, potentially a different function, is those have limiting conditions of operation on them.

So if you lost that function for that structure, there are requirements to potentially shut down the plant in hot standby and cold standby within certain time periods. I brought up the containment enclosure building because that's one of those with a limiting condition of operation attached to it.

JUDGE SPRITZER: I mean, the petitioner's position, and for standing we're not going to decide the merits, we're simply taking their position. Their position is the concrete's degraded, it's going to

continue to degrade and the methodology proposed by NextEra is inadequate to show that that degradation will not progress further or won't create a dangerous situation at the plant.

They think there is a risk, in other words. So assuming we have to accept for purposes of standing their allegations, at least certainly where they're supported by an expert's affidavit, to say, you seem to be saying that we should just assume everything's fine, but that's not their position.

Don't we have to take their theory of the merits of the case for purposes of standing and say does this show an obvious potential for offsite consequences?

MR. HARRIS: So I would not describe it that was is that you can't just take their theory for how the merits might proceed for standing. One, it's incumbent on them to establish their standing and plead it at this stage of the proceeding, and that cannot be based on a mistake of fact, you know, a mistake in terms of how they're analyzing it.

Putting aside the merits, and I recognize that this does, it does, you know, there are some overlapping issues with that. But standing needs to be established by them.

In this particular case, assuming the license amendment doesn't proceed, this license amendment does not increase the likelihood of an accident. This license amendment is simply, you know, allowing an analysis that had not previously accounted for ASR to, for them to keep that analysis of record can account for the forces ASR would impose on the concrete in terms of its structural capacity.

So the concrete is going to perform the same both before and after the license amendment, regardless of the license amendment.

JUDGE SPRITZER: Yes, but at least part of their argument is directed at the concrete not being adequate to mitigate the effects of an accident if it were to occur. Isn't that sufficient to establish --

MR. HARRIS: That would --

JUDGE SPRITZER: Let me finish. Isn't that sufficient to establish an obvious potential for offsite consequences, even if the amendment itself won't increase the likelihood of an accident? But in their view, the amendment is insufficient to ensure that there will be adequate mitigation if an accident were to occur.

Isn't that sufficient to demonstrate an obvious potential for offsite consequences?

MR. HARRIS: If the license amendment was, they're making a change to the licensing basis that that license amendment somehow made the plant less conservative, making an accident more likely from that license amendment.

I believe that I would agree with your statement. But here those issues that they raised weren't raised until the reply. They were never addressed in the initial pleading.

And in the reply, they combined the ASR effect with a beyond design basis earthquake. That beyond design basis earthquake is clearly outside the scope of the licensing basis. The structures themselves are designed, you know, right now to deal with the design basis earthquake, and that's why we consider them still operable at this point.

This license amendment is not going to change whether or not those structures, the earthquake that they have to withstand or their ability to maintain their structure during that earthquake.

JUDGE SPRITZER: All right.

JUDGE MTINGWA: But it seems to me the main point they're trying to make is that they don't know where the tipping point is. Right? I mean, you could be very near the tipping point now and not know

it based upon your past experiments.

So outside of an earthquake, I mean, there could be a tipping point there. And if there is a catastrophic accident because of that, they would be impacted. I mean, doesn't that give them standing?

MR. HARRIS: Well, you can't, you can't assume an earthquake beyond the design basis of the plant. So the concrete itself needs to be able to, you know, perform its function during the design basis earthquake.

JUDGE MTINGWA: Right. Just outside of the earthquake. You know, just forget about the earthquake. Suppose just the ASR is putting you now even very close to the tipping point. They're worried that just the ASR outside of any earthquake could lead to a catastrophic accident. And in that case, they would have standing.

MR. HARRIS: It needs to be related to the license amendment. And perhaps I'm not quite understanding the question is that the , we think that, I think that that's not quite equivalent analysis is that the ASR is not going to lead to a catastrophic accident. It's going to slowly degrade over time.

The license amendment of course proposes

to monitor that and put in place a method to, you know, calculate the structural capacity of the building so that if we move a little bit from standing into the contention because I don't want, is that that tipping point is a function of the representativeness of the testing that was done.

So if that representativeness was appropriately bounding, then the limits that were established by it in terms of the expansion in the concrete, you would not get close to that tipping point. And because of the licensing basis for the plant, you would not expect an accident to cause the plant to fail, those structures to fail to perform their functions.

So there's not an obvious potential for offsite consequences there. To get there based on this license amendment, you have to impose, essentially impose an accident of some type, some initiating event that is beyond the design basis of the license of the plant.

If that answers all the questions on standings, I'll move on to contentions. The first thing I would like to address is that the staff's answer did not add additional information fact to our arguments why the Board should admit a modified

contention.

And while the staff's position in this case is that the petition should be denied for lack of standing, if you read the entire set of ten contentions holistically and understanding that they were written by pro se petitioners and they did not necessarily incorporate portions of the other contentions the way we would expect counsel to by, you know, stating explicitly incorporation by reference, the staff read the pleadings to make several cross references to each other, especially dealing with the representativeness through the other contentions A through C and G through H.

The staff maintains however that had just Contention B been pled and none of the other contentions been pled, that Contention B without being added to the portions of A through C, that the staff, you know, suggested should be admitted as an admissible contention and G through H would not form the requisite challenge to the issue that the staff must decide is that representativeness by itself, without applying it and challenging some other aspect of the license amendment, is not material.

JUDGE TRIKOUROS: Mr. Harris, does that have to do with the connection to the monitoring

program?

MR. HARRIS: It has a connection to the monitoring program. It also has a, you know, connection to the type of inspections that are being done. It could potentially impact the actual acceptance criteria for how much through-wall expansion has occurred.

This is because part of what that test, the large scale testing program did was to help try to establish how much expansion occurs through wall prior to the putting in extensometers in it. So that through-wall expansion that occurs prior to the installation of extensometers is unknown.

And so we need a way to account for that expansion that occurred prior to being able to monitor the actual expansion.

JUDGE TRIKOUROS: All right.

MR. HARRIS: Now, sorry, I just got an echo when I was speaking, so maybe it's my issue for the echo. While the staff's requirement of consenting finding parts of the -- if they had actually established -- if C-10 had actually established standing, we think that the portions that they could combine Contention D of any of the admissible portions and Contentions A through C and G through H

individually.

So it doesn't require that you actually admit all of A through C or all of G through H to form an admissible contention. However, we think that specifically those particular issues that are worth calling specific attention to is the visual inspections, the crack indexing, the use of extensometers with what we had just talked about, the fact that the through-wall expansion can't be measured until occurs prior to the extensometers being put in place.

And then that also impacts as a tipping point where if you're not representative, you know, then it's hard to know how close you might be to the potential edge and that there might need to be more conservatism applied to where we think that the data provides.

You had asked us to address what the actual requirements that the staff is going to use to evaluate this particular proceeding. And that is a little bit of a difficult issue. Of course the staff had to make its requisite findings of reasonable assurance of adequate protection, and there are a number of codes that are put into place by the regulations identified in 50.40 and 50.55(a).

It would also be looking at what the licensee has done in terms of what they're proposing which deals both with the general design criteria. But part of the staff's difficulty in being able to provide a full and complete answer to this is that the staff is still awaiting some structural calculations of each of the different buildings.

And those different buildings have different requirements and different code cases that are applicable to them. And so until the staff has a chance to review those, we would tend to point out to what the NextEra has proposed in its license amendment as a place to start for where the review would be done because the staff hasn't, you know, made up its mind that those particular ones that have been proposed are necessarily correct because the ones that are finally settled on or that there might be something else that comes up as a result of the additional calculations that we receive.

JUDGE TRIKOUROS: But those calculations are assuming the ASR loads in the LAR?

MR. HARRIS: Yes, those calculations are assuming that what they've done so far can be translated into their code cases as a result of the representativeness. I probably defer somewhat to

NextEra to say exactly how those are being done because we haven't seen them yet, or I don't think we've seen very many of them yet.

JUDGE SPRITZER: On the question of the regulations you would apply, if you had your answer to the petition at the top of Page 47.

MR. HARRIS: I do, Your Honor.

JUDGE SPRITZER: I would assume you stand behind this as an adequate, well at least as representing the basic standards that the staff has to apply. I guess you might call them the overarching standards the staff has to apply in evaluating the license amendment.

MR. HARRIS: That's correct is that of course we had to make our finding and that we would apply the same standards for the license amendment that you would apply to an original licensing, you know, as applicable.

So in this case you would be looking at the code cases for concrete structures. You would also be looking at, you know, potentially general design criteria. But different structures have different requirements.

So it's when you look at the number of structures that are potentially implicated in the ASR

issue, there are about 20-something different, 26 different structures that are implicated, and they all have different requirements.

JUDGE SPRITZER: Let me ask to you to address the third of our questions on contention and admissibility which relates to the representative in this issue and your claim that that's not material to the findings the staff has to make.

MR. HARRIS: So representativeness by itself is simply saying that what was done at the University of Texas, without tying that explicitly to the other portions of the license amendment, would not be material because they could have done that analysis in a number of different ways that would have, that potentially could be acceptable.

So you could have done it in a very, very conservative way. It would not necessarily be representative of the Seabrook but be done so conservatively that the data it produces would be potentially acceptable.

So it really requires doing more than that. The reason why we said D was not admissible by itself was we were trying to provide sort of a full and complete answer of looking at what was just within the four corners of what they pled without looking

outside of that through that intertwining of representative that shows up in the other contentions because it was not done the way we would expect counsel to do it, incorporating by reference.

But when you looked at it as a whole, all those contentions, it appears to us that C-10 was trying to incorporate representativeness into other contentions or those other contentions into D. So we think that it should be admitted as that, not purely as an issue of how representative it is. Once you --

JUDGE SPRITZER: If I understand what you're saying, if they had incorporated the other contentions by reference in contention D, then D itself would have been admissible?

MR. HARRIS: It's close. What I was saying is that if you look at the way counsel, if they've been representative by counsel, counsel would have done that, would have made specific incorporation, you know, or we would have expected a party represented by counsel to have specifically said I'm incorporating these particular issues into this contention.

But when you look at that representativeness, you can find references to that same representativeness in contentions A, B, C, D, and

H where they're sort of tied together.

And so we think that they were attempting to incorporate by reference, and that's why the staff rewrote the contention to put all those parts that the staff interpreted as being related together.

JUDGE SPRITZER: If the petitioners had simply filed one contention with all their different arguments as sub-parts of that contention, obviously there would be some of those sub-parts you think are inadmissible. But we wouldn't have this problem.

We could just say we're going to admit the one contention narrowed down to the specific issues that are admissible in this one hypothetical mega-contention. Is that a fair --

MR. HARRIS: That's essentially the staff's position.

JUDGE SPRITZER: So basically it goes to the form of their pleading, and you're satisfied that at least for a pro se petitioner we can overlook the defects in the form and admit the modified or reformulated contention you proposed?

MR. HARRIS: That's correct, Your Honor. And putting aside whether or not standing was established, so we're not waiving our standing arguments by --

(Simultaneous speaking.)

JUDGE SPRITZER: I understand.

MR. HARRIS: -- the contention could, you know, can be admitted in a limited form.

JUDGE SPRITZER: All right.

JUDGE MTINGWA: I have a question about that. You don't think that they have standing. So you would like the petition to be denied, is that correct, on the basis of lack of standing?

MR. HARRIS: Yes. The staff believes that the petition should be denied for lack of standing.

JUDGE MTINGWA: So why go through the trouble of trying to help them with the admissibility?

MR. HARRIS: Well, the staff's obligation is to, you know, both protect, to represent the staff itself and to try to protect the procedures that are in place here. So we evaluated, we're providing both our answer on standing, we don't think that they met standing.

But should the board, you know, decide that the staff is incorrect on standing, we think that the petition should be admitted in a limited form. So it is trying to, you know, represent what we believe the rules that have been established for these proceedings and where the staff believes how those

rules should be interpreted in this particular case.

We would not want to simply argue that you shouldn't, you know, we wouldn't normally rest on just they don't have standing and then not address the contentions themselves. You know, it's possible that the Board would disagree with our argument on standing.

But we would not necessarily believe that the Board should admit issues related to the tone or the proprietary nature or the impact of rebar which is really, rebar corrosion which is really outside the scope of this license amendment proceeding.

So we had an obligation to point those issues out where we didn't think that they actually were admissible.

JUDGE MTINGWA: But I guess apparently isn't done so often based upon some of the arguments I've seen in the documents. It's rather rare for you to do that. In fact, I think C-10 argued that this is the first time in one of this type of hearings in Part 50, number 50 hearing that you've done that.

MR. HARRIS: I believe, yes, NextEra said that staff has not done that. I've personally been involved in part two proceedings, three proceedings before the Board where the staff had reformulated

contentions to try to identify the issues that are material for the Board to decide as a result of a proceeding that was ongoing.

My most recent experience, you know, experience with that was of course was in Davis-Besse where the staff initially proposed that part of a contention was admissible and reformulated it. By the time the board actually had an opportunity to rule on that contention, that issue had been resolved, and the staff's position at that ultimate argument was that it was no longer admissible because the issue had become moot.

JUDGE TRIKOUROS: In your reformulated contention, you include Contention G.

MR. HARRIS: That's correct. That's the, I believe it's the intervals for the inspection. And this is --

(Simultaneous speaking.)

JUDGE TRIKOUROS: No, actually Contention G is this tipping point issue that was brought up earlier and for which there was very strong, there were very strong answers against the admissibility in Contention G. Yet you included Contention G in your reformulated contention that I don't quite understand why.

MR. HARRIS: So if you give me one second, Your Honor. Let me, I'm just going to put you on mute for just a second, Your Honor.

JUDGE TRIKOUROS: Very well.

MR. HARRIS: I am back, Your Honor. The tipping point issue we think is slightly related, and it's related to how that representativeness is eventually determined. So if when you look at what the license amendment proposes, it has limits that you're not supposed to exceed.

I believe it's 0.1 percent of through-wall expansion and then you would be outside those limits. But if you're not exactly sure how representative your testing is to base that limit on, then you need to evaluate whether or not there's sufficient margin at that point.

You know, so if the large test scale, or the large scale testing program had sufficient conservatism, then that issue may be resolved by the resolution of the representativeness of the testing program.

But the closer you get to it, the more you need to look at where those margins are and how close to failure you might be. We think it's barely in there. We're not taking a position that it would be

ultimately successful, but we think that under the bare minimum of establishing an admissible contention, that there is just enough there.

JUDGE SPRITZER: If we disagreed and found G completely inadmissible, and eliminated it from the reformulated contention, would the reformulated contention still be admissible with the other parts but without Contention G?

MR. HARRIS: That is correct, Your Honor. The staff believes that you could combine the representatives with each of the other parts individually. So you wouldn't have defined that the parts in A, B, E, G, and H were admissible, but you could look at each one of them individually and it would form an admissible contention.

JUDGE SPRITZER: I take it your basic point is there has to be something to tie the representativeness issue to something more specific determination the staff has to make like what's appropriate monitoring or what's an appropriate interval for monitoring.

MR. HARRIS: And that's correct. And you know, just to address one issue I believe NextEra raised, the staff's not trying to use this proceeding to review the license amendment. The staff will

continue its review in the normal process through RAIs. So this is not a staff trying to, you know, to basically review a license amendment through a proceeding.

I believe that I've covered most all the questions that the Board has proposed. There is the issue about what would the staff, satisfy the staff regarding the limits to the long, large scale test program.

And at this point we're not sure. That's part of our review. So I would not want to get out ahead of establishing what those limits should be that would be satisfactory. I think that would be pre-judging the technical staff's opportunity to finish their review.

JUDGE MTINGWA: But you've made several comments that the large scale test program results bound the Seabrook Unit 1 reactor. So why do you, how do you make that statement if you're not --

(Simultaneous speaking.)

MR. HARRIS: -- statement to say bound the reactor. What I was saying is that's an issue that, you know, should you, if you admit the contention and had a proceeding that the issue of whether or not the test program is bounding may resolve many of the other

underlying issues by that finding.

It's not for the staff to dictate how a licensee proposes to meet its licensing basis or how a particular license amendment is to go forward. The staff reviews what the licensee's propose and evaluates it for its adequacy in light of the regulations and the licensing basis that currently exists.

So for example, and this is merely hypothetically, a licensee could do analysis in its experimental program that was absolutely representative of the Seabrook concrete, but how that was translated into acceptance criteria and limits may be, in the staff's opinion, inadequate.

Or it could be completely adequate how they've done it. They could choose to do a very conservative bounding type analysis that produces, you know, good results. But it's not for the staff to tell the licensee that they should do this extremely conservatively for their experimental work that they did in their technical analysis to develop the license amendment.

We simply review what they submitted and determine whether or not it meets the current regulations and the licensing requirements.

JUDGE TRIKOUROS: And back again to the tipping point, you indicated you were looking to understand margin to the in plane expansion limits that are established in the LAR, but wouldn't you really look for margin there by seeing how much you would have to increase the in plane expansion limits to actually reach the point where you can't meet your design basis requirements, not whether or not the containment would have some sort of a failure under some assumed pressure condition.

I just, it seems to me you could do all that by analysis. If I were doing it, I would increase the in plane expansion limits until I could no longer reach my acceptance criterion for my design basis acceptance right there.

MR. HARRIS: I would be remiss to, you know, second judge your engineering. But the, I think what I would say is that there are a lot of different ways you could try to account for that uncertainty, you know, in terms of the data you produced and where you're going to deal with that both the -- yes the uncertainty associated with the type of analyses you did and simply the uncertainty associated with the model that we're using.

And so, you know, having that establish

that limit of 0.1 percent expansion, some of that, part of that is that the combination of the extensometer that they measure the expansion after they put it in plus what they've done to correlate I believe crack width indexing to the through-wall expansion that occurred before then, there is an amount of uncertainty there that you want to make sure that your limit for where this license amendment would no longer apply is appropriately conservative so that you could have more through-wall expansion than your program measured because of that uncertainty.

And so you could exceed that 0.1 percent as a result of the uncertainty.

JUDGE TRIKOUROS: Right. And all of that can be accomplished without Contention G.

MR. HARRIS: That's correct, I believe. But I believe that Contention G itself does address a small portion of it. Like I said, that is barely there, but we think that there was sufficient to make it admissible.

JUDGE TRIKOUROS: Okay, that's fine. We don't need to go further.

JUDGE SPRITZER: All right, Mr. Harris, thank you. I think we can, if everybody's prepared to go on and hear from NextEra, we can do that so we can

hopefully finish by 1 o'clock or at least close to 1 o'clock. Does anyone have a problem with that before we hear from NextEra?

(No audible response.)

JUDGE SPRITZER: Okay, hearing no objection, Mr. Lighty?

MR. LIGHTY: Thank you, Your Honor. And may it please the Board, Ryan Lighty for the Applicant. On behalf of NextEra, I appreciate the opportunity to appear before you this afternoon.

And as explained in our pleadings and as we will further explain today, we believe the Board should deny the petition in its entirety. And without rehashing the briefings, and before turning to the Board's specific questions, I would like to emphasize just a few overarching points and respond to a couple of comments made earlier today.

First, C-10 fundamentally misunderstands and therefore fails to effectively challenge the LAR. The petition doesn't appear to recognize that NextEra is performing mechanical property testings, or to correctly comprehend how the test results or the LSTP data are actually applied here.

And this lack of understanding should at least raise some red flags for the Board as to C-10's

ability to demonstrate a genuine dispute with the application because as the Commission has explained, a petitioner's misreading of an application is not a basis for an admissible contention.

Second, as recognized in the Board's contention question number five, the petitioner did not identify any findings the staff must make to grant the LAR much less demonstrate that any of its contentions are material to evaluating satisfaction of those unspecified standards.

So the fact that the Board even had to ask this question demonstrates somewhat that C-10 did not demonstrate materiality in their petition.

Turning to just a couple of comments made earlier today, first by C-10. Mr. Nord stated that the burden was not on C-10 to show that representativeness is germane to the proceeding, and that's simply an inaccurate statement of the contention admissibility requirements.

In 2.309(f)(1), the requirement is on the petitioners to demonstrate each element of an admissible contention. Turning also to Judge Spritzer's question about reaching the table four limits, we do believe that if you were beyond those limits it would be outside the CLB and you would need

to reevaluate.

But we certainly don't think that the petition offered any explanation as to how that would be material to the LAR that is being currently evaluated. So we'll turn now to the specific questions that were presented by the Board.

First on standing, the Board asked how an organization with an office within ten miles of the plant could be found to not have standing under the NRC's proximity presumption. And the brief answer is by not pleading it.

The petition doesn't plead standing, it doesn't acknowledge a standing requirement, it doesn't reference any legal standard applicable to the incident proceeding, or plead facts to demonstrate satisfaction of some unspecified standard.

And this places the Board and the parties in the position of applying the potentially applicable standards and then combing through the pleadings in search of arguments in satisfaction of those standards that were never advanced by petitioners themselves. But the Commission has explained in the USEC case, CLI-06-10, that it's not our burden to do so.

Now we generally agree with the staff's discussion of the proximity presumption requirement

here, and C-10's petition also is silent as to the standard. So the bottom line is this is a pleading deficiency. Commission regulations require a petition to plead standing, and C-10 did not.

So turning to the Board's question number three on standing about the Commission decisions that purportedly allow new information and arguments in reply pleadings, we agree with the staff that these cases are distinguishable.

As the Commission explained in the Palisades case, CLI-08-19, there's a difference between an omission that's merely a matter of failing to cross a t or dot an i in their words, versus failing to plead, "an essential ingredient of standing." And C-10's reply attempts the latter.

In the Summer case there are the reply required a minor change from pleading membership in an organization to pleading authorization for that organization. The changes that C-10 offers in its reply are much more substantial.

And there were other distinctions in the Summer case. There the petitioners, "demonstrated standing in every other respect." That's not the case here. Petitioners there pled an inadvertent omission, also not the case here. So we think that these cases

are distinguishable.

MR. LIGHTY: As far as the proximity presumption goes, their petition, while it doesn't have a section labeled standing, or equivalent language, it gives their address, it provides information about what they do in proximity to the Seabrook Plant, and certainly the contentions themselves lay out what at least in their opinion is a potential for offsite consequences.

Why does it matter, if the facts are there or the elements of standing are there, that they didn't have a specific argument labeled standing for us to find that they've met the requirements?

MR. LIGHTY: Well, because we believe it is a requirement that if they plead that, that offsite consequence, not just a matter of discussing issues somewhere else in the petition that the Board or other parties may somehow be able to stitch together to construe that argument.

But they simply didn't plead that that was the case, that the arguments they were advancing evidence and obvious potential for offsite consequences. So --

JUDGE SPRITZER: Have you cited in your pleadings a case that will apply this rather, this

standard that you are arguing for to a pro se petitioner? Certainly there are cases which expect a fair amount from somebody represented by counsel. But what about pro se petitioners, aren't they entitled to some leeway as far as technical pleading requirements?

MR. LIGHTY: Your Honor, I don't recall specifically whether we pled it in our answer pleading or that we cited a case to that effect. I know that we certainly cited the Board, or I'm sorry, the Commission's Fermi decision that talked about applying requirements strictly to pro se petitioners.

JUDGE SPRITZER: All right, thank you.

MR. LIGHTY: And so briefly, just a bottom line on the cases cited in the Board's standing question three. One word changes and minor supplemental details are permissible in replying. But offering new, a new particularly vivid scenario to use C-10's words is something far different.

Turning now to the contention questions, questions one and two asks for an explanation as to how and whether the LSCP results found the Seabrook's concrete expansion. And just as an initial matter, we would observe that these questions, if material, would go to the merits of the application and not necessarily to contention admissibility.

But to answer this question, we would point to the LAR evaluation discussion at Section 3.2.1 where a program confirmed that the specimens experience ASR distress that was more severe than Seabrook. And then the LAR also includes confirmatory analyses for the similarity of the expansion behavior between the LSCP specimens and Seabrook, and that discussion at MPR 4273 at Page VII and Section 6.1.5. Now you would also --

JUDGE SPRITZER: If I may interrupt just briefly. The fact, what's your position on the staff's argument that bounding or representativeness by itself is not a material issue? Given that it's discussed in the LAR, doesn't that suggest that whoever prepared the LAR thought it was at least relevant to evaluating whether the license amendment should be granted?

MR. LIGHTY: Well, I think first I would point out that there's a difference between something that's representative and something that's bounding. Those are separate concepts. And in fact there's a tension that's discussed in the LAR between these two concepts.

Next there are notes that, you know, this difference is significant. If you look at Section

2.4.2 of MPR 4273, there's something of an inverse relationship here. The test designers note that the Seabrook concrete would have been the most representative data source, but would not have provided bounding data because it would merely be a snapshot of existing levels of ASR.

Whereas on the other hand the LSTP concrete, the less representative could provide data for more extreme levels of ASR. So these concepts are certainly not one in the same, and in fact there's a tension between them that's discussed and resolved in the LAR that C-10 does not seem to acknowledge or attack that discussion in Section 2.4.2.

And so, you know, we again note that the petition does not contain the word bound. This topic was raised for the first time by staff, and appears to conflate these two concepts which have a material difference in the application.

And so to the question, to the extent the question considers C-10's representativeness argument, we would again note that C-10 entirely disregarded rather than disputed that discussion in MPR 4273.

They didn't acknowledge it, reference it, point to specific assertions within it to offer a meaningful challenge. But as the Commission explained

in the Millstone case, CLI-01-24, the petitioner is required to read the pertinent portions of the application, state the applicant's position and the petitioner's opposing view, and it has not done so here.

So it's not possible to raise a genuine dispute on representativeness while at the same time ignoring the very section of the application that discusses that topic.

One of the Board's questions was what would satisfy questions on this topic. And I would just briefly note that they reference the standards in the code 349.3(r). And we would just note that this is the subject of their petition for rulemaking that is still pending here.

So C-10 acknowledges this is not currently a requirement that's applicable to reactor licensees. And in fact, the imposition of the standard is the subject of a petition rulemaking which makes it outside the scope of this proceeding.

JUDGE SPRITZER: You said they had filed a two, a petition under 2.206, did I understand you correctly?

MR. LIGHTY: No, I believe it's 2.208 which is -- 802, apologies. Petition for rulemaking.

JUDGE SPRITZER: And that petition requests what?

MR. LIGHTY: It requests imposition of this code standard for reactor licensees to use that standard to conduct the tests, the tests that they've noted would need to be done to satisfy their request here.

JUDGE SPRITZER: Do you know what the status of that petition for rulemaking is?

MR. LIGHTY: I believe it is still pending before the staff, Your Honor.

MR. HARRIS: Your Honor, this is Brian Harris for the staff. It is still pending before the staff at this time.

JUDGE SPRITZER: Okay. I assume in at least one of your briefs there's some citation to this where we could see what the petition includes?

MR. LIGHTY: Yes, Your Honor, it was included in our answer pleading.

JUDGE SPRITZER: Okay.

MR. LIGHTY: So to return to the Board's questions on contentions, question three the Board asks about using LSTP results to calibrate code equations versus just assuming test samples are representative.

And NextEra here notes that the difference lies in the fact that the codes entail embedded margins of safety. And this is a key feature of NextEra's approach, an important driver in their decision to continue using the existing codes because by maintaining the existing code, you maintain its margin of safety, the code accounts for a range of different specimens and concretes, and these ranges are leveraged by using the code.

And so the LAR methodology, it also uses mechanical property testing of Seabrook's concrete. And at bottom here, the petitioner does not appear to recognize that either of those is used. And that fundamental misunderstanding of the LAR evidences the lack of a genuine dispute with the actual methodology that's being proposed in the LAR.

JUDGE TRIKOUROS: Let me interrupt you one second. There does seem to be some confusion regarding future testing of Seabrook concrete.

The LAR does seem to imply that there will be core holes obtained throughout, you know, the future monitoring period, and that testing will be done on those, then elaborate on how frequently that would be done or what specific tests would be done. Can you say something about that?

MR. LIGHTY: Certainly, Your Honor. I would talk about a couple of different things here. First, for the tier three locations, the locations that are affected by ASR that meet the tier three monitoring criteria, there are four samples removed.

And mechanical property testing is completed on those samples as part of the program that is proposed here. And in fact the MPR document contains the results of the first set of those tests. So that's one area where it is included.

The other is the confirmatory testing that would confirm the expansion behavior at Seabrook is similar to the expansion behavior in the LSTP test specimens. And that's covered in MPR 4273 at Pages VII.

There's a chart of the different tests, the different periodicity of those tests, the approaches for those tests. And Section 6.1.5 of that document also discusses those confirmatory analyses. So it's not a matter of just assuming the expansion behavior is similar. There's confirmatory testing in this program.

JUDGE TRIKOUROS: All right, thank you.

JUDGE MTINGWA: How does the size of the core samples that you extract in comparison to the LS,

the large scale test program samples?

MR. LIGHTY: Just to clarify, is this for the samples removed from the extensometer location?

JUDGE MTINGWA: Yes, yes. When you extract those samples, what size is that relative to the size for the large scale test program?

MR. LIGHTY: If you give me just a moment to confer with my team, Your Honor, I'll see if I can find the answer to that.

Okay, thank you, Your Honor, for that opportunity to confer. It's my understanding that the core samples that are removed, the size of what is actually being tested is a cylinder that is four inches in diameter and eight inches long. And that's the test sample. What's removed is slightly larger, but that's the size of the sample that's actually tested.

And that size corresponds to the testing that was done for the correlation calculation in MPR 4153.

JUDGE MTINGWA: Okay, thank you, thank you. Let me ask another question. Is the concrete in Unit 1 and that in Unit 2, are they the same?

MR. LIGHTY: They are generally the same.

JUDGE MTINGWA: No, I mean specifically

the same. Are they precisely the same concrete?

MR. LIGHTY: They are the same specifications and the same original materials.

JUDGE MTINGWA: Okay.

MR. LIGHTY: I would --

(Simultaneous speaking.)

JUDGE MTINGWA: And is the -- go ahead, I'm sorry.

MR. LIGHTY: That certainly there are differences between the concrete at an operating reactor versus --

JUDGE MTINGWA: No, I know. But I'm just worried about the starting point of both because there was a question as to whether or not you could glean information about Unit 1 by taking samples from Unit 2. So I just wanted to know at least concrete, you know, the same, is it the same by design?

MR. LIGHTY: Yes. I think they started out with the same materials and --

JUDGE MTINGWA: Okay. And what about the thickness of the wall, the through thickness, is that the same for the two as they started out at construction?

MR. LIGHTY: I believe they would have been the same.

JUDGE MTINGWA: Okay. So the reason I'm asking that is that the methodology that you used to determine the through thickness expansion, you know, you used the LSTP results to be able to calculate using the elastic modulus what the starting point thickness was.

It would be interesting if you used that same methodology on the Unit 2 to see if you get the same thickness at the beginning. That could be sort of a check on the methodology. Is that something that you are considering?

MR. LIGHTY: It's beyond my knowledge at this point. I think that in the documents that were submitted with the LAR, the test designers considered the possibility of using the Unit 2 concrete. And the analysis there was that it would have some of the downside as harvesting the Unit 1 concrete in that once you cut it out, you lose the structural context.

And so that was something that was considered. The analysis is in the LAR documents, and that analysis was not challenged by C-10. It wasn't referenced or challenged.

JUDGE MTINGWA: Okay. Can you think of another method of getting the through thickness expansion? I mean, there's a lot of work on this

particular method, but are there other methods that you could use, because there always good, you know, as a scientist myself, to have more than one way to get at the same result. So are you considering other ways of getting it besides this normalized elastic modulus approach?

MR. LIGHTY: I can't speak specifically to that. I just have the limited understanding of a lawyer, so I'm not certain on that. But you know, again, I don't believe that's what has been proposed in the LAR.

So in other words, the fact that there may be other ways of doing what the LAR proposes to do isn't exactly the same as showing that there's some type of a deficiency in the methodology that is proposed because that's what the staff's being asked to evaluate here.

So turning to the Board's Question 7, we're going to ask NextEra to explain why C-10's statement that it plans to discontinue core sample testing, or attempting to avoid such testing is incorrect.

We again point to the testing that has been done and documented in MPR 4153 at Page 5.1, the results in Appendix D. So there is core sample

testing that is going on here, as we discussed earlier.

And the bottom line again is that the C-10 does not seem to acknowledge that this testing is being performed much less understand or dispute how it is being used.

JUDGE SPRITZER: Quick question, quick housekeeping question. I think the document you just cited was MPR 4153?

MR. LIGHTY: That's correct, Your Honor, 4153.

JUDGE SPRITZER: All right, is that, it doesn't seem to be on the list of enclosures with the LAR. Or if it is, I'm missing it.

MR. LIGHTY: It was included with the LAR supplement.

JUDGE SPRITZER: Oh, okay. All right, I'm sorry. Go ahead.

MR. LIGHTY: Turning to the Board's question eight, asking NextEra to explain its reasons for arguing that Contention D is devoid of support, given specific reasons that were apparently articulated by C-10.

Just to be clear, NextEra was referring specifically to the standard in 2.309(f)(1)(v)

requiring petitioners to provide a concise statement of the alleged facts, expert opinions, specific sources, and documents that support the petitioner's position.

And aside from quoting some limited portions of the LAR and its attachments, C-10 merely offers a quote from a NUREG document that it does not explain, and a letter arguing that ASR progression is non-linear without explaining how non-linear progression is related to representativeness.

And as the Commission explained in the USEC case, CLI-06-10, references to documents without explanation or analysis as to their relevance does not provide an adequate basis for admitting a contention.

Now we went through Contention D and noted that the petition offers six general assertions or conclusions here. And we will walk through and explain that none of these are supported as required by the regulations.

First, the general assertion that LSTP data stream in all likelihood misrepresents the progression of ASR. One can only wonder whether the LSTP result has any relevance to Seabrook. There's simply no support to the idea that one can only wonder because to the contrary, one can do more than wonder.

One can perform confirmatory testing exactly as discussed in MPR 4273 Section 6.1.5 and Page VII.

This testing includes the very definitive analytical parameters. But C-10 doesn't acknowledge or challenge any of this discussion in the application. So that's an unsupported assertion.

Number two, the assertion that ASR is non-linear. Here C-10 at least cites the documents, although it's an advocacy letter of its own creation. Still, the quote does not discuss the topic of representativeness, and it doesn't opine on the LSTP which it pre-dates by a number of years.

And in any event, NextEra doesn't dispute that ASR is non-linear. Petitioner simply doesn't explain how this purportedly supports a representativeness contention. And the quote ultimately calls for mechanical testing of extracted cores to establish compressive strength and modulus, and the LAR does both of those things.

Number three, that the use of wetted absorbent fabric, "strains credulity." There's no support, expert opinion, or explanation that accompanies this statement. I know there's an entire discussion in MPR 4273 explaining the purpose of that method, explaining the confirmatory analyses that were

conducted to ensure that it satisfies that purpose, the conclusion that it did satisfy that purpose.

But petitioner doesn't challenge any of that discussion. They simply ignore it and offer their conclusion.

Number four, the assertion that there are, "far too many variables" for any test program to ever be representative of Seabrook. That broad statement also is not paired with any authority to back up the claim.

Number five, that the effect of radiation on ASR is, "notable." Here C-10 does quote a NUREG document, but they don't offer any explanation for how it might be relevant to the LAR, or much less to contention D. Again, references to documents without explanation of analysis of their relevance is inadequate as a matter of law.

And number six, the assertion that no rationale has been given for not load testing the as-built structure at Seabrook. Again, petitioner offers no support for this assertion, and it's not true anyway. MPR 4273's test design justification discussion covers this very topic.

Note discussing the comparison of harvested specimens versus fabricated ones and

discussing the consideration of Unit two concrete. But petitioner neither acknowledges nor attacks this very discussion.

So the bottom line being Contention D does not reference specific sources or documents or offer reasons, explanations, or analyses to support its supposed specific reasons. These are merely conclusory assertions which are insufficient for an admissible contention.

And finally, the Board's questions nine and ten about the staff's proposed reformulation. We again go back to the Fermi case, CLI-15-18, explaining that reformulation authority essentially comes in two varieties, trimming and grouping.

Trimming inadmissible content from an otherwise admissible contention and grouping similar otherwise admissible contentions,. And we note that those involve otherwise admissible, fully formed contention.

A board may not however add content to an inadmissible contention in order to make it admissible. It's an important distinction here, yet that's exactly what staff promise to do.

Staff admits in their answer pleading, "None of C-10's contentions are independently

admissible." Staff then proposes to cobble together portions of inadmissible contentions and then declare, in the words of Mary Shelley, "It's alive."

But it cites no authority for this Frankenstein theory of reformulation. It cited several cases on reformulation authority in its third reply, and notably none of them attempted this Frankenstein approach.

And controlling case law, in any event, says it's not permissible. The Board's reformulation authority is limited to trimming or grouping otherwise admissible contentions, which is not the case here.

Now earlier, staff noted with regard to contention --

JUDGE SPRITZER: If that's the case, then you could never take contentions, according to you, if contentions all have to be independently admissible in order to be grouped together, the Board's reformulation authority doesn't really add anything, does it?

It first has to find every contention to be admissible, and only then can group them together presumably for purposes of efficiency. But it can't ever take two contentions, each of which might be missing some element that's necessary, and put them

together which to my mind if that's the case there really is no reformulation authority at all.

MR. LIGHTY: I would respectfully disagree, Your Honor. The different is inserting content into a contention in order to make it admissible.

JUDGE SPRITZER: Well, the staff --

(Simultaneous speaking.)

MR. LIGHTY: In all of the examples --

JUDGE SPRITZER: The staff says they're not doing that. They haven't found any new evidence outside of what's been supplied by C-10. They're mainly concerned with putting the contentions together so that they provide one contention that satisfies their definition of materiality.

MR. LIGHTY: Yes, Your Honor. And I think that's an important point because in this Fermi case, CLI-15-18, this was what the Commission considered. There was no nexus pled between two concepts that were otherwise in the same petition.

And the Commission said inserting that nexus that the petitioner did not plead was impermissible. And so it's the nexus, it's inserting that connection between concepts where the petitioner itself did not plead the connections, that is beyond

the scope of reformulation authority.

And that's also why we don't think this is a matter of form over substance. This is not just the matter of a form of the pleading and an argument that the counsel would have incorporated other contentions. This is material content, pleading connections between concepts that the petitioner did not include in its petition.

And that itself is beyond the scope of reformulation. It's the staff's Frankenstein reformulation theory that's impermissible here, and in any event pleads a nexus between concepts that petitioners themselves did not offer.

So the reformulation must be rejected for those reasons. And with that we would be happy to take any other questions from the Board.

JUDGE SPRITZER: Let me just ask about the business of if you get a table to the ASR limits in ASR, excuse me, in Table 4 of the LAR, my guess this is LAR enclosure 7 which is the non-proprietary version of enclosure 1, you get to those limits.

You would then be I think you said outside of your continuing licensing basis at that point, assuming the amendment is approved. Am I interpreting what you've said correctly?

MR. LIGHTY: Yes. If you put limits into your licensing basis and then exceeded those limits, you would be outside of your licensing basis.

JUDGE SPRITZER: And at that point you have to get some authority from the NRC staff to continue to operate?

MR. LIGHTY: I believe it's an accurate statement that you would have to reevaluate and then do something.

JUDGE SPRITZER: Do something. I mean, from the petitioner's perspective, I guess they're concerned that they don't know what that something is. And as ASR continues to progress, that there could be a time gap in there between your whatever your next solution might be and the point at which you go outside your continuing licensing basis. What would be your response to petitioner's concern about that?

MR. LIGHTY: I would say it's not material to the LAR that is before the staff right now. In other words, NextEra is requesting authority to do something. And the petitioners are asking what happens beyond the authority that's being requested.

But that's not material to whether there's a sufficient basis to grant the authority to do something that's being requested in this LAR. It's

beyond the scope of the LAR, and therefore it's not material to the determination of whether it can be granted.

JUDGE MTINGWA: Let me ask you about your monitoring. You track the in plane expansion, right, that's what you're proposing to do in this three tier way of monitoring the degradation.

And you don't do the through direction because you say they're connected or they trend sort of in a same way, although the in plane expansion plateaus out at some point. And the through direction takes off actually.

So at some point during all of this expansion, the two have some disconnect. So how confident are you that just tracking the in plane expansion is sufficient?

MR. LIGHTY: Well, I believe we're doing more than that. We're measuring the expansion in the extensometer locations for --

JUDGE MTINGWA: No, that's only after you hit 0.1 percent, right? But suppose when you're at 0.09 percent the Z direction has already taken off on you and it may be in a dangerous situation with the concrete integrity.

So in other words my question is how

confident are you that just in plane monitoring is sufficient?

MR. LIGHTY: If you give me just a moment to confirm with my team, Your Honor.

JUDGE MTINGWA: Sure.

MR. LIGHTY: Thank you, Your Honor. So we understand that the limits in the table were established by observation of the expansion and the connection between those two directions that were observed in the LSTP.

In other words, up to 0.1 or whatever the number was, that they all trended together. That was the observation in the program. So two things on that. First, based on the Seabrook extensometer locations and the modulus testing that was done there, they have not seen anything that would challenge that observation.

And furthermore, in the table in MPR 4273 Page VII, the confirmatory analyses for similarity, they would specifically look for a disconnect in that trending.

JUDGE TRIKOUROS: I have one last question. In the LAR, Section 351, there's a statement that periodic monitoring of in-plant expansion in accordance with the frequencies in Table

5 will ensure that NextEra can take appropriate action before expansion reaches the ASR expansion criteria in Table 4.

The expert witness, or the expert I guess I could say witness, for the C-10, Dr. Brown, indicated that there is no action that NextEra can take. So my question is what is the specific appropriate action that can be taken?

MR. LIGHTY: I'm sorry, the specific action that can be taken when?

JUDGE TRIKOUROS: All right, so again, from Section 351 of the LAR, I'll read it again. "Periodic monitoring of in plane expansion in accordance with the frequencies in Table 5 will ensure that NextEra can take appropriate action before expansion reaches the ASR expansion criteria in Table 4."

So this implies a mitigating action. The question is what is the specific mitigating action that can be taken?

MR. LIGHTY: I'm not sure that it would be a mitigating action. But I think that this would need further review, additional testing, additional analysis to confirm the status of the concrete and the structural adequacy. But I think it would be further

review to determine what the next steps are, not necessarily some type of a mitigating action.

JUDGE TRIKOUROS: All right, so this would have nothing to do with changing the rate of ASR progression or anything physically associated with the ASR?

MR. LIGHTY: I think that's a generally correct statement, Your Honor, yes.

JUDGE TRIKOUROS: Okay. Now the statement in the LAR is confusing. When you read it, it directly implies that there's some mitigating action that would occur before you reach the Table 4 -- all right, thank you.

MR. LIGHTY: Yes, Your Honor. And I think we continue to monitor this issue. And I think the assertion there was intended to convey that before you reach that, that you trigger additional analyses that may need to be done.

In other words, you don't wait until reaching that, that you do that at some point before reaching that.

JUDGE TRIKOUROS: All right.

JUDGE SPRITZER: Anything further for Mr. Lighty? Very well. Thank you for your comments. Let me just go back to the staff for one minute, if you

can answer just one question.

I would like you to respond to Mr. Lighty's argument that our reformulation authority is limited to trimming inadmissible parts from an otherwise admissible contention doesn't really seem to apply in this case.

And then he says that in terms of combining contentions, we only have the authority to combine individually admissible contentions, meaning we would have to find, to admit your reformulated contention, that all the parts that we include are independently admissible. Is that a correct statement of commission law in your view?

MR. HARRIS: So I might state it in a slightly different way than the way you stated is the Board cannot add information that was not provided by the petitioner to make the contention admissible.

I think in this case, you're not reformulating it by, you know, by substituting stuff that was missing. We were just simply trying to show that if you looked at D without interpreting the what appears to be an intentional cross references by C-10 that D, if it had just been submitted by itself would not be admissible.

But when you trace through all the

references to all the other contentions that D traces into, that those combine to form an admissible contention. So we are not adding additional information, we are simply reformulating the admissible portions of the contentions into something that is material for the Board to decide, not adding information that was otherwise missing.

JUDGE SPRITZER: All right, thank you. We have, we're almost kept to our schedule. Petitioners did not ask for any rebuttal, but we will allow you five minutes. But I do mean five minutes, five minutes only.

And I think it would be best advised to keep that to one person if you can do that.

MS. TREAT: Thank you, I think we'll be less than five minutes, and thank you for this opportunity. Again, Natalie Treat, Executive Director of C-10 for the record.

So the point really that I want to make is that the NRC staff has acknowledged that we have admissible contentions here, however you take it. And that you have admitted them, that our organization, myself, our members, or board, and however you want to take it, are exposed to the risk of harm due to radiological contamination from the concrete

degradation.

Therefore, we believe that we have shown that we have standing, and that you have said that we have admissible contentions, Brian. And I'll turn it over to Chris for one more point.

MR. NORD: Very simply, the Palisades case law that was cited talks about the purpose of this restriction is to ensure fundamental fairness to the Commission's proceeding for all participants because allowing new claims in a reply would unfairly deprive other participants of an opportunity to rebut new claim.

And I simply want to point out that we have not deprived anyone the opportunity of rebutting claims because all we have heard for the last hour, which is fine, are rebuttals to our claim.

So it seems to me that that is actually an untenable argument as far as disallowing standing, and clarifications that we try to make as pro se representatives of our standing and contentions for those standing and contention arguments.

The last thing that I would just say is having to do with a reference earlier to earthquakes that, you know, we were sort of coming out of the blue with this notion that an earthquake is suddenly be

beyond design basis.

And so I went back and looked it up from our petition, and I don't say that the earthquake is beyond design basis. I said greater than expected. It could still be within design basis. I don't expect to have a large earthquake anywhere near us, but I do know that we're close to an earthquake fault.

So the idea that we were trying to convey, perhaps not as clearly as staff would have preferred and I understand, is that the combination of some kind of natural phenomenon, in this case an earthquake was what I used, even what is expected within design basis combined with the deterioration of the concrete because of ASR could result in a calamitous consequence. That was the point that I was trying to make.

So with that we'll just say thank you for giving us the opportunity to make some further clarifications.

JUDGE SPRITZER: Very well. That concludes the argument. Are there any housekeeping -- well let me first say we will do our very best to get our ruling out within the 45 day period which starts running today. If in the event we don't meet that, we will issue the order required by the regulations

explaining when we will get the ruling out. But we will give every effort to deal with all the issues we've been presented with in that time period.

Are there any other housekeeping matters we haven't, we need to talk about here today that we haven't covered?

MR. NORD: Thank you for the opportunity.

JUDGE SPRITZER: All right. Just one question for, I guess this is mainly for NextEra. On the documents, the privileged documents or the protected documents, I think for all of them we have redacted versions that we could use what we would cite in our order.

If we don't, my understanding is you have blocked out everything we need to not refer to either in red boxes or otherwise. So if we did have to refer to a document that was protected, I would think we could refer to the portions that aren't blocked out or in a red box. But I just want to make sure that I'm correct about that.

MR. LIGHTY: Yes, Your Honor, that's correct. All of the proprietary content has been blocked out of the documents.

JUDGE SPRITZER: All right, very good.

(Simultaneous speaking.)

JUDGE SPRITZER: Unless there's anything further, we will conclude our --

Oh, excuse me.

MS. TREAT: Just one clarifying question. I believe that Attorney Harris indicated that if we were admitted standing in this docket that we would have privilege to the redacted versions as well, that we missed the previous deadline. What would we be able to see?

JUDGE SPRITZER: Well, I think what he said was if the petition is granted, if we admit the petition and proceed with the case, that the Board would then enter a protective order that would allow appropriate access for the representatives of C-10. Am I paraphrasing you correctly, Mr. Harris?

MR. HARRIS: You have got me absolutely correct, sir.

JUDGE SPRITZER: All right. We'll get to that stage when and if we issue our order. There will be something in our order or at least shortly thereafter about moving forward with a protective order. That would typically I think, probably either the staff or NextEra have some form of protective order that they've used in other cases that they could confer with you and hopefully come up with an

appropriate order that would allow the access you need.

Anything else? I think that concludes our proceedings then. Thank you, it's been a very informative, interesting argument.

(Whereupon, the above-entitled matter went off the record at 1:13 p.m.)