

Official Transcript of Proceedings
NUCLEAR REGULATORY COMMISSION

Title: Public Meeting on Southern Nuclear
Operating Company Vogtle Units 3&4

Docket Number: (n/a)

Location: teleconference

Date: Thursday, August 12, 2021

Work Order No.: NRC-1623

Pages 1-67

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UNITED STATES NUCLEAR REGULATORY COMMISSION

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PUBLIC MEETING ON SOUTHERN NUCLEAR OPERATING COMPANY

VOGTLE UNITS 3&4

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THURSDAY,

AUGUST 12, 2021

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The Commission met at the via
video/teleconference, at 9:00 a.m. EST, Cayetano
Santos, Facilitator, presiding.

PRESENT

CAYETANO SANTOS, NRC, Facilitator

GARY ARMSTRONG, NRC

MARISSA BAILEY, NRC

GREG BOWMAN, NRC

NICOLE COOVERT, NRC

BRADLEY DAVIS, NRC

JAMES GASLEVIC, NRC

BILLY GLEAVES, NRC

ANDREA JOHNSON, NRC

BRIAN KEMKER, NRC

KATIE MCCURRY, NRC

PHILIP MCKENNA, NRC

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

9:00 a.m.

MR. SANTOS: So, good morning everyone.

My name is Tanny Santos. I am a Project Manager at the NRC's Vogtle Project Office within the Office of Nuclear Reactor Regulation.

I'd like to welcome everyone attending this public meeting between the NRC and Southern Nuclear Operating Company to discuss issues associated with the NRC's review of licensing actions and ITAAC closures for Vogtle Units 3 and 4.

This is an observation public meeting. This means that members of the public attending will still be able to observe the discussions between the NRC staff and SNC, and then have an opportunity to ask questions and provide comments to the NRC staff at designated points during the meeting.

However, the NRC is not actively soliciting comments about any regulatory decisions at this meeting. No regulatory decisions will be made during this meeting.

This meeting is being conducted via Microsoft Teams or by telephone. A transcript of this

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meeting is being kept, so I request that speakers identify themselves and speak loudly and clearly.

For those that are listening in, please ensure that you are muted to minimize any background noise or distractions.

We appreciate any comments that you may have that would help us improve public meetings.

If you do have comments, please fill out the public meeting feedback form, which can be found on the NRC's public meeting schedule website under the show recently held meetings tab. A link will be available for this particular meeting.

So, this morning we have two topics for discussion. One is ITAAC closure for components that are not installed until after they're -- until after fuel load. The second topic is the ITAAC closure notification for ITAAC Index Number 570.

So, I'd like to begin by introductions, beginning with the NRC, what I'll do, is I'll just try to go through the list of participants. Try to speed things along.

So, in addition to myself, I see Marissa Bailey, Greg Bowman, Bradley Davis, Jim Gaslevic, Billy Gleaves, Andrea Johnson, Katie McCurry, Philip

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McKenna, Michael Spencer, Susan Vrahoretis, Michael Webb, Christopher Welch.

Is there anyone else from the NRC staff, please introduce yourselves?

MR. ARMSTRONG: Gary Armstrong, Vogtle.

MR. SANTOS: I heard Gary Armstrong. Who was the next one?

MS. COOVERT: and Nicole Coover, Region 3 Branch Chief.

MR. SANTOS: Thanks Nicole. Anyone else from the NRC?

MR. KEMKER: Brian Kemker.

MR. SANTOS: Welcome Brian. Okay. Katie -- Kelli, I'll turn it over to you for SNC for introductions.

MS. ROBERTS: All right. Thanks Tanny. Good morning everybody. This is Kelli Roberts. I'm the ITAAC Manager here at Vogtle 3 and 4.

I'm going to go over the participants I see on Teams. And then we'll go around in the room. Then we'll open it up for any call ins.

I see we have Mark Wilson, Jeff Sharkey, Alan Lovett, Nick Kellenberger, Eddie Grant, Keith Dorsey, Amy Chamberlin, Jerri Byers and Stephanie Agee.

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And then we'll go around in the room here.

MR. CURETON: Tim Cureton from the ITAAC,
the 5.15 Manager.

MR. MORROW: Carl Morrow, ITAAC
Supervisor.

MR. BEILKE: Bob Beilke, ITAAC Project
Manager.

MR. YOX: Mike Yox, Public Affairs
Director.

MR. GREGORY: Ken Gregory, Outage
Specialist.

MR. FISHER: John Fisher, ITAAC
Supervisor.

MR. KELLENBERGER: Nick Kellenberger,
Site Licensing.

MR. LEGIHTY: Steve Legihty, Licensing
Manager.

MS. ROBERTS: All right. Anybody from
Southern on the call in that wants to introduce
themselves?

(No response)

MR. SANTOS: Okay. Is there any members
of the public attending? If so, could you please
introduce yourselves now?

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(No response)

MR. SANTOS: No? Okay. We'll check again in a few.

MR. HARPER: Zach Harper, Westinghouse.

MR. SANTOS: Oh, welcome Zach. Sorry about that.

MR. BRINKMAN: And Bob Brinkman with Oglethorpe Powers.

MR. SANTOS: Anyone else from the public?

(No response)

MR. SANTOS: Okay. So, I'll turn it over, so the first topic is again, ITAAC closure for components that are not installed until after fuel load.

I'll turn it over to Chris Welch to begin the discussions. Chris?

MR. WELCH: Good morning. Thank you, Tanny. So, this morning's discussion has to do with the components or as-built to ITAAC.

And it's really a continuation of our discussions of July 24 and August 8 associated with ITAAC, a proposed draft ITAAC 515 and subsequent extent of condition due to discovery or identification that the incore thimble assemblies are not installed, and

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can't be installed in the reactor in their final position located on the site until after the 103(g) finding is made and fuel load is accomplished.

Tanny, could I share my screen?

MR. SANTOS: Absolutely.

MR. WELCH: Can everybody see my screen?

MR. SANTOS: Yes, we see it.

MR. WELCH: Okay. So, I'm sure everyone is, you know, on the line here is familiar, but just in case somebody's not, Appendix C of the combined license, which contains the Tier 1 of the DCD in the ITAAC, defines as-built, and states as-built means the physical properties of a structure system or component following the completion of its installation or construction activities at its final location at the plant site.

In cases where it's technically justifiable, determination of physical properties of the as-built structure system or component maybe based on measurements, inspections, or tests that occur prior to installation, provided that subsequent fabrication, handling, installation, and testing, does not alter the properties.

For anyone who was following, this is the

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combined License Appendix C. It's available on the public website on our Vogtle Unit 3 page, if you want to go to the source.

So, with this definition, it's been the NRC's position that the two sentences, the first sentence about its location, and the second sentence about determining the physical properties in a location other than the final location, are not separable.

If it's technically justifiable, then you may determine the physical properties of a component at a vendor facility.

However, prior to submittal of the ITAAC closure notification and closure of the ITAAC, it's required that the component be installed in its final position in the plant. And verified that handling installation didn't impact the properties that were previously determined.

And that's where we're having a problem.

Because this is not separable, the as-built ITAAC have to be completed with the component, or closed, with the component in its final location.

So, if we go and we'll look at 515, -- just do this. Getting close. So, the issue came to light with Southern Nuclear's submittal of a proposed change

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between the UIN, or the uncompleted ITAAC notification in their submittal of the ITAAC closure notification.

And the proposed change was a result of their identification that the thermocouples that are referenced in Table 2.5.1-1 cannot be installed in their final location.

And here is the as-built requirement, brought in through the inspection tests and analysis.

And this is where we come to the issue.

So, we looked internally, discussed internally, if there was another way of interpreting or applying the guidance that we hadn't thought of.

And we've come to the conclusion that there isn't.

And that the best path forward would be for the licensee to submit the necessary exemption and license amendments to modify the ITAAC or the Appendix C in the license from the specific components that cannot be installed in their as-built location.

So, for 515, the issue is the four thermocouples in Table 2.5.1-3, the core exit temperature thermocouples IIS-013, IIS-030, and IIS-034, which are within a specific incore thimble assembly. All of the other components should and can be installed in their final location.

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So, having gone through the license, and again, it's the licensee's responsibility to draft and submit the license amendment requests and identify anything that would need to be changed.

But, I've gone through and I've looked at the components that I have identified that cannot be installed until after the fuel load. And those are the incore thimble assemblies, which come into play in ITAAC 515.

And the purpose of this here is failing to ensure that the signals of the thermocouples are not being used like the ones that are routed to DAS, are not being shared with PMS or the plant control system.

And the licensee can accomplish this ITAAC without having the thermocouples installed, and it's still a valid ITAAC to maintain.

You just have to be a little more explicit in how you verify that the sensors or the signals being sent to DAS, are in fact, separated from those that are sending PMS and the plant control system.

So, I still find the ITAAC valid. It can be completed without the actual incore thimbles installed into the reactor vessel or connected to the

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cabling.

I believe that a review of the design requirements in the construction drawings and the cables that are in fact routed from the various panels down to the quick lock on the reactor vessel head should be sufficient to demonstrate this ITAAC is met and can be met.

The second ITAAC that we've come across, and this was raised in the August 8 presentation as one of the potential ITAACs by yourselves, was ITAAC 565.

So, 565 is your qualification ITAAC, seismic qualification and harsh environment qualification.

And from the incore thimble assemblies again, that's what this is looking at. This is Table 2.5.5-1, incore thimble assemblies and each are installed.

And there are 42 incore thimble assemblies. So, this ITAAC applies to the 42 incore thimble assemblies.

And the first two, there's no issue with. The i and ii, and the component on the Nuclear Island. And it's ii, the qualification of the component

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itself, either by type test analysis, those two are not impacted by the as-built requirement.

However, for seismic, the iii is an as-built requirement. So, this would have to be modified to support the closure of this ITAAC, such that you'd still be interested in demonstrating that the actual thimble assembly.

Because recall in ii, when you're taking up here, it may not be the actual component, and generally it is not the actual component that's installed in the plant that is type tested.

And analysis would be of the design of the component. So, part iii is still valid in assuring that the component you received and are going to install, is in fact bounded by the qualification that was accomplished in section ii.

The same logic applies to 3.a, which is the environmental qualification. The i is not impacted. It's not an as-built. It's the qualification of the thimble assembly to withstand a harsh environment.

But, ii has the as-built configuration. And as we've stated, the incore thimble assembly cannot be installed in its final location.

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But, there's still value in this ITAAC in demonstrating or assuring that the incore thimble assembly that you've purchased and obtained, is in fact bounded by the qualification requirements.

And that when you do the final made up, it will be environmentally qualifying based off of the type of fittings, et cetera, that were qualified that you have on the actual component you installed.

The last one related to this component, the incore thimble assembly, is the class -- 570, the class 1E running cables have sheaths.

And again, it's all dealing with the incore thimble assembly, which cannot be in its final position until after fuel load.

But again, there is value in maintaining this ITAAC to ensure that the incore thimble assemblies in the MI cable, the incore thimble assembly reactor vessel head area cable, are properly constructed and do have the internal sheaths that are commonly grounded to prevent a common cause failure or loss of the Class 1E cables due to failure of the non-Class 1E cables that do not have the adequate separation distance.

So, those are the ITAAC that I've identified or seen that are impacted with the inability

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to install the incore thimble assembly until after fuel load.

If you go back to the reactor systems chapter, 2.1.3, we've gone too far, excuse me. Bear with me one second. I'm getting there.

Now, in this Chapter 2.1.3, I believe they did try to address the as-built issue. But, I would still believe if we, would we -- excuse me, I'm mumbling.

I still believe it would be beneficial and prudent to address this in a potential law exception to just eliminate any question about the as-built scenario.

And the reason I'm saying that is because in this chapter, there was a Table 2.1.3-3, which identified the location of the components.

So, for fuel it specifically identifies that the fuel will be located in the Aux Building product to fuel loading, as well as the rod control cluster assemblies and the gray rod cluster assemblies.

But, the only place that this Table is actually invoked is in the functional arrangement ITAAC Number 68. And it's invoked because the functional arrangement as we've discussed in the past, when

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there's a functional arrangement ITAAC, it includes all the components that are described in Section 2.1.3, the tables and figures.

And this ITAAC still applies the as-built requirement, i.e., that it be in its final installed location on the plant site. And obviously, the fuel, the gray rod cluster assembly, and the rod control cluster assemblies cannot be installed until after the 103(g) finding.

So, I see that this is applicable. It does look like it was tried. It was attempted to address it. But, I just think if we're going to do this, we ought to just clean it up so there is no potential question in the public's mind whether or not this is met with the fuel rod install.

And I'm just wondering, when you went and did your ITAAC consolidations back a year or so ago, it eliminated a number of the functional arrangement ITAACs. If this was an oversight, or if there was a specific reason to maintain it.

Because in reality, when you look at the components, ITAAC 2 and ITAAC 2A Number 69 and 2C Number 71, really cover the major components of the reactor vessel already.

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The other ITAAC concern with the fuel is ITAAC 75. And again, just like with the incore thimble assemblies, for seismic the first two should not be an issue.

The third is an issue because it's asking for the fuel and the rod control cluster assemblies to be in their as-built location, which you can't.

But again, there's still value in this ITAAC in demonstrating through the report that these components in fact are seismically qualified and will be seismic in their installed location.

From the harsh environment, this ITAAC is not applicable to the fuel rods, et cetera, et cetera.

The only one of concern is this seismic issue for those three components.

So, in sum, looking at it, you know, there's a number of options that you could take. You know, you could go after just changing or clarifying the as-built definition.

Though we see that could be somewhat problematic or a more difficult path. Or you could add specific guidance to the ITAAC themselves, or some combination.

But, in a nutshell, I do want to address

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the proposed draft for 515. And the draft that you had submitted will not be acceptable because it doesn't -- one, it does -- we need to change the ITAAC to address the as-built condition.

But, even as it's written, it doesn't demonstrate that the -- the language does not demonstrate the signals are separate.

It -- calling in the vendors aspect really doesn't provide any benefit, because the vendor just verified the construction. It doesn't get you anywhere towards verifying the separability of the signals.

With that, I'll stop sharing my screen, unless somebody has a specific issue they want.

So, I'm interesting in hearing your thoughts and any thoughts you may have on how you're proceeding, or plan to proceed, or any feedback.

MS. ROBERTS: Hi Chris. This is Kelli Roberts again with Vogtle 3 and 4. We really appreciate you, the review that you did of the Appendix C. Appreciate you walking us through that. So, thank you.

What I'd like to do, is first address the comments on ITAAC 68 and 75. And let you know what

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our plans have been for those to date.

For -- specifically for 68 and 75, if you look at Table 2.1.3-3, you know, that -- the component location for the fuel assemblies, it's very c that this is going to -- that the fuel would be located in the Auxiliary Building prior to fuel up.

And so, our intent has not obviously been to, you know, verify the as-built condition in the core.

But, you know, verify that it was on the Aux Building.

And based on, you know, our reviews of the EQ ITAAC for 75, we believed we were going to be able to get through all of the verifications necessary to demonstrate the acceptance criterion is met without, you know, the fuel being in the core.

That said, I mean, if ALARA is required for other ITAAC, you know, it is a good opportunity to make that crystal clear. We felt like that note in the table was clear.

But, we can certainly take a look at that and see if we have an opportunity to make it even more clear. So, thank you for that.

Regarding the definition of as-built in the COL, yeah, our understanding was not that those two sentences have to go together in all circumstances.

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And the -- and our basis for that understanding is, NEI 08-01, Rev. 5 corrected which has been, of course, endorsed by the NRC as an acceptable method for complying with 52.99.

So, if I can, I'd like to share my screen and walk through the section of NEI 08-01 that we've specifically been looking at as it relates to the as-built definition for the incore thimble assembly.

Can you see my screen okay?

MR. SANTOS: Yes. I see it fine. Thank you.

MS. ROBERTS: Okay. Great. So, this is Section 9. And this document, of course, is available to the public. Again, this is NEI 08-01, Rev. 5 corrected.

Section 9 provides guidance for inspections, tests or analyses performed at a location other than the final installed location. It provides the definitions of as-built. Very similar to the definition that Chris just went over, it's the same.

As-built means the physical properties of a structure, system or component following completion of its installation or construction activities at its final location at the plant site.

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In cases where it is technically justifiable, determination of physical properties of the as-built structure, system, or component may be based on measurements, inspections, or tests that occur prior to installation, provided that subsequent fabrication, handling, installation, and testing do not alter the properties.

This section goes on to explain what that definition means. The next paragraph talks about Section 9.1 through 9.6.

And it discusses that there are a range of different types of inspections and tests that could be performed at manufacturing, fabrication or even test facilities.

It talks about requirements for including design specifications and purchase orders.

And the different types of things, like dimensional inspections, NDE, hydrostatic testing, and it goes on here toward the end to say that the -- for these ITAAC as-built physical properties of the completed engineered component may be determined via an inspection, test, or analyses performed in the manufacturing facility.

After installation or construction in the

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final location, ITAAC associated with verifying the installed configuration and system or integrated system inspection/testing may be performed. Licensee should not submit ITAAC Closure Notification for as-built ITAAC until after the component/module is installed in its final location.

So, this paragraph here, you know, specific to Section 9.1 through 9.6, you know, makes it clear that for these specific scenarios that the, you know, structure, system, or component should be installed prior to -- but it can be submitted after we've installed the component.

And then the guidance goes on to say that there may be cases that are not discussed in Section 9.1 through 9.6. And we believe that, you know, the incapability of installing the incore thimble assembly very clearly falls into, you know, a case not considered in Sections 9.1 through 9.6.

And in that case, Section 9.7 provides guidance for a situation like this. I'm going to skip down to 9.7.

And I will note that in the last discussion that we had, we were looking at invoking 9.5. And understand the, you know, the discussion and feedback

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there.

Since then we've reassessed the 08-01 guidance and got some input from our corporate licensing group and Eddie Grant. And our -- the best path forward from our perspective, would be to utilize Section 9.7.

So, this particular section says that technical justification for other tests or inspections at other than the final location, if we can't fit into Sections 9.1 through 9.6, then a technical justification for performing an inspection or a test or an analysis of SSCs at other than their final location is in a manner other than described in Sections 9.1 through 9.6, should be documented in the ITAAC Completion Package and summarized in the ICN.

So, in this case, for Sections 9.1 through 9.6, when we submit the ICN, the guidance up front in Section 9 asks that the licensee identify at which section it was being utilized, but doesn't require a technical justification.

However, because Section 9.7 is different, it actually does provide guidance that says that we should include in an ICN our technical justification for what we're proposing, and also, you know, the

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basis for being able to maintain the ITAAC once the ITAAC, or the component, excuse me, is installed.

Part of the guidance for this, you know, requires us to engage the NRC whenever we would, you know, choose to invoke this section of the NEI 08-01 guidance.

So, from our perspective, you know, if you look at ITAAC 515 for example, this is to verify that the sensors for DAS are different and diverse from the PMS sensors.

In this case, we do believe that you can verify that via the installation of the sensors that were performed at the manufacturers. We have 42 incore thimble assemblies. Thirty-eight of them are 1E and have PMS sensors.

And four of them, you know, are the sensors for DAS. So, you know, they're literally manufactured inside of different incore thimble assemblies.

And then so from our perspective, there is no way that a subsequent installation of completely separate incore thimble assemblies, you know, could make the sensors no longer diverse.

And so, you know, our intent at least until we received the feedback that you just went over, Chris,

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was to amend our approach to invoke Section 9.7 of the NEI 08-01 guidance, and provide a justification in the ICN that clearly explains why it's technically justifiable, why we can't install the incore thimble assemblies prior to fuel load, and provide the basis for how we know that once they are installed that the acceptance criteria will continue to be met.

Now that, you know, we've heard the NRC's you know, thoughts and position on that, of course, we'll take that back and consider that before our next ballot on this topic.

MR. SPENCER: This is Michael Spencer from OGC of the NRC. And I wanted to address the points you just made about the NEI guidance, if you don't mind.

MS. ROBERTS: Sure.

MR. SPENCER: Okay. So, the -- I was involved working with OGC when this as-built guidance was being developed and as the NEI 08-01 guidance was being reviewed.

And, I think, that we -- you have to consider, you know, what the purpose of ITAAC is, and how the as-built term plays into that.

So, as required by the Atomic Energy Act, and this is Section 185(b), the NRC issues a COL based

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on a predictive finding that the plant will be constructed and operated in accordance with the various requirements listed therein.

And ITAAC have to be necessary and sufficient to provide reasonable assurance that if the ITAAC are satisfied, then the plant has been constructed and will be operated as required. And the -- and the key part of ITAAC is the has-been constructed part.

There are some ITAAC that address more operational issues like emergency planning exercise ITAAC. But, most of the ITAAC address how the plant has been constructed.

And the point of the ITAAC -- well, if you go look at what does construct mean, for purposes of Section 185 of the Atomic Energy Act, that term is defined in our regulations. It's in 10 CFR 50.10, and that definition applies to the licensing of, you know, when a license is required.

But, it's the same term that's used for ITAAC, for the ITAAC requirement. And the point of the ITAAC is to verify that when the plant is all put together, it actually meets the -- meets all the requirements.

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And the only, really, the timing, the only term in the ITAAC that reflects or ensure that the ITAAC verified that the plant is actually put together, is the as-built term.

And if you look at, let's say, the 2007 SRP, when you had the original definition of as-built, which was just the first sentence, it defines the purpose of ITAAC in the terms of as-built.

It says, you know, the ITAAC is primarily intended to verify the as-built plant. So, the issue that came up during the development of the NEI 08-01 guidance is that industry told us that there were certain cases where if you put -- if you wait until the final location to, let's say you have a big component or module that you're installing, if you wait until the final location when the thing is put together, then you don't necessarily have access to perform the inspections and tests.

And so, they wanted leeway to perform the inspections and tests earlier. And the NRC agrees with that idea.

But, and the discussions that were involved, the definition that was finally agreed to, reflected the key consideration that the ITAAC, the

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as-built ITAAC still reflects the plant as it's put together.

So, the -- if you look at the definition, if you don't mind scrolling up to the definition that's reflected in Section 9?

So, the first sentence is unchanged. And that sentence refers to the actual physical properties of the SSC following completion of its installation or construction activities at its final location of the plant site.

So, that's what we're concerned about. You know, ultimately it's the plant as it's put together that matters.

We -- there was an allowance in the second sentence, in certain cases, so it has to be technically justifiable, for the physical properties to be determined prior to the final location, but prior to installation.

But, it's conditional on subsequent fabrication, handling, installation, and testing, not altering the properties.

And so the idea was, we would allow determinations of physical properties earlier than the final installed location one, if it's technically

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justifiable. And two, subsequent fabrication, handling, and installation and testing do not alter the properties.

And the second part of that, the fabrication -- the separate fabrication, handling, installation and testing not altering the properties is -- that's important to ensure that what you tested before actually reflects what's actually built.

So, if you -- you did mention that the statement in the -- if you scroll down just a little bit, the statement at the end of the next paragraph.

It says, licensee should not submit ITAAC Closure Notifications for as-built ITAAC until after the component or module is installed in its final location.

And so, you know, that isn't really a qualifying statement. It really applies in a general basis.

What you're talking about in 9.7 is -- are technical justifications. And so, the 9.1 to 9.6 set out preestablished technical justifications.

And 9.7 discusses a situation in which well, there may not be a preestablished technical justification and you have to describe it.

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But, those sections really only relate to the term in the as-built definition called technical justification. So, if you scroll up to see the definition, that is -- that says in cases where it's technically justifiable.

So, 9.1 through 9.7 are about when it's technically justifiable. But, it doesn't -- that doesn't change the general requirement -- general requirements on subsequent fabrication, handling, installation and testing do not alter the properties.

And that as-built ultimate meaning is the physical properties of the component of the SSC following completion of the installation or construction at the final location at the plant site.

And I guess, you know, there's also discussion of as-built in Section 3.1.4, and it says again that the ITAAC Closure Notification should not be submitted until after the component or module is installed in its final location.

And it also says that, you know, the ITAAC Closure Notification should reflect subsequent fabrication, handling, installation and testing.

So, the point was, is that, you know, if an issue came up during subsequent handling or

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installation that affected whether the property has met the ITAAC, then maybe it would have invalidated the prior test. And that would be considered in the ITAAC Closure Notification.

So, I've talked at great length. But, I'll -- I think I've explained, you know, how the guidance was developed, and the NRC's use of that guidance historically.

MS. ROBERTS: Thank you, Michael. This is Kelli Roberts again here at Vogtle 3 and 4. Appreciate you elaborating on that and providing that perspective.

MR. SANTOS: So Chris, any other comments on this -- this topic?

MR. WELCH: No. I do not have any. Tanny, do you have any questions for me?

MS. ROBERTS: Hi, this is Kelli. No, no questions. Thank you.

MR. SPENCER: Hey Tanny, I see Eddie Grant's hand is up.

MR. SANTOS: Yes. I just saw that too. Eddie?

MR. SPENCER: All right.

MR. SANTOS: Thanks.

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MR. GRANT: Yes. This is Eddie Grant with Southern. So, one consideration, I guess, that I would bring up for discussion, the ITAAC also has to be completed before we can load fuel.

So, when you're considering the final location at the plant site, could that not be considered as the final location at the plant site prior to loading fuel?

Which would fit our case here and be a part of the technical justification.

MR. SPENCER: This is Michael Spencer from OGC. The issue is that ultimately the definition says final location at the plant site.

And the final location at the plant site is when it's actually installed. The final location during the construction period, or during con -- you know, is not, in these cases it's not the same thing as the final location as the plant site.

And I think the issue is that these particular components weren't necessarily fully considered. I know that there was this -- even that for the, there's a table in Section 2.1.3 that talks about the components being, yeah, final installed in their installed location.

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So, it says, you know, completion of installation or construction activities. And so, it's we know what installation means.

And then construction is, as I said, it's a defined term that if you look at that, it's really about the SSCs as they're integrated together.

So, like when we issued the rule defining construction, we said well, the word construction, as applicable here, the definition, reflects the historical process of constructing a nuclear plant where all the SSCs are integrated together and actually reflect the final in place location during operation.

But, in terms of like how these ITAACs were put together, you know, I under -- I think that there might have been some recognition for the Table 2.1.3 when somebody put that together.

But, when there were responses on the as-built ITAAC like that. So, we ultimately in the AP1000 amendment, closed our review of the as-built ITAAC definition based on an REI response from February 19, 2010.

And in that response, actually for these ITAACs, 68, 75, 515, 565, and 570, the response said -- to the NRC said that there -- it would be based on,

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the closure of the ITAAC would be based on the SSC in its final location.

And so, ev -- I don't think these issues were necessarily fully considered at the time.

MR. GRANT: Well, I won't disagree that they may not have been fully considered at the time.

What we're trying to get to, is a consideration now with the words that we have in front of us.

And the definition of construction complete, and requiring that those things be installed in the core, seems a little bit inconsistent with the requirement that construction be complete before we can install fuel.

MR. SPENCER: I agree with that. So, I think the issue is that we have some di -- there appears to be, at least in part, a disconnect in the license.

And maybe part of that is that we didn't fully understand, or it wasn't fully understood where some of these components could be installed. I think maybe the incore instruments, maybe it wasn't fully considered how that would work.

But, I think that the consideration is that when you have something like this, the license amendment process can be used to actually fix the issue

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so that you can completely comply with the ITAAC. Because right now, it's not set up based on the practicality to be complied with.

And so changing the ITAAC would specify when it can be complied with. And you know, allow us to close the, you know, allow the ITAAC to be closed.

Allow us to find the ITAAC to be satisfied.

And ensure that there's certainty about when the activities can be completed. And there's certainty and predictability on that.

MR. SANTOS: So Eddie, did that address your comment or question? Do you want to ask a follow up?

MR. GRANT: It's not really a follow up.

I guess it just seems to me that the same justification for the change to -- in the ITAAC, would be the same as the technical justification that would justify doing it at the final location at the plant site where construction is complete prior to loading fuel.

And that would seem to be something that the staff could accept and move forward with. But, I think I'm hearing that's not the case.

And so, I will let others address that.

MR. SANTOS: Are there any other comments

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or questions from either the NRC or SNC on this topic?

MR. WELCH: I do not have any Mike, I mean, Tanny, sorry.

MR. SANTOS: That's okay. Thanks Chris. Hearing one, I think I'd just like to open it up.

If there is any member of the public online, if you have a comment or question about this topic, now is your opportunity to provide that.

Please just unmute yourself and make a comment.

(No response)

MR. SANTOS: Okay. Hearing none, let's proceed on with Topic Two. We're almost right on schedule with the agenda, a little early.

So, the second topic is the ITAAC closure notification, ITAAC's ind -- ITAAC Index Number 570.

Chris talked a little bit about that in the first topic.

So, as part for this topic, we did share with SNC some, you know, talking points and proposed questions that we wanted to cover for this. So, hopefully you've had a time to review that and prepare.

I don't know if it's best, Chris, do you want to make some introductory remarks and open it to

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questions?

Or should we just have Kelli respond to the questions? How do you guys want to proceed?

MR. WELCH: Well, I'll just start and then turn it over.

MR. SANTOS: Okay.

MR. WELCH: The purpose of this discussion is so I can better understand the, so we both can better understand how it is we've come to this point where we obviously have a disconnect from the ITAAC requirements and how it was interpreted or applied.

Throughout the process, right from the very first UIN through acceptance of the Unit 3 and 4 ITAAC Closure Notifications that we received, I'm not sure -- are you putting that up, Tanny? Is that --

MR. SANTOS: Yes. I'm sharing the ICN.

MR. WELCH: Okay.

MR. SANTOS: 570.

MR. WELCH: Did you have the questions? Do you want to put those up and everyone can see --

MR. SANTOS: Yep.

MR. WELCH: What the questions were?

MR. SANTOS: Yes. Here are the

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questions. Can everybody see that?

MR. WELCH: And can you scroll up to the, I'll call it the preamble. Okay. So, essentially this came to light during the June 24 and August 8 public meetings where we discussed the incore thimble assemblies.

And then we looked at the extended go -- extent of condition of well, what other ITAAC could be impacted?

And one of them was 570, was brought up. And we looked at that. And to me, that ITAAC is talking about the cables from the thermocouple element to the disconnect panels.

And looking at that, we had questions. And I won't read the whole verbiage of the -- I'll give everybody a few minutes to read the few paragraphs that are up there. And then we'll go to the questions.

So, at this point I'll just turn it over to SNC to provide their response. I don't believe everyone needs to listen to me read what they can read.

So, Kelli Ann, if -- I'm not sure if you're going to lead the response, or somebody else. But, if you guys could go ahead from here.

MS. ROBERTS: Great. Thank you, Chris.

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This is Kelli Roberts again, here at Vogtle 3 and 4.

I'm going share my screen with you, and essentially go through the history of this ITAAC. And then walk through the ICN and explain kind of paragraph by paragraph exactly what was done to satisfy this ITAAC.

And I believe that will answer most of the questions that you have. We can always come back and answer some if they don't get answered in this exercise.

But, I think we'll be able to answer most of them by going through this information. So, where I'd like to start is back in 2016.

This was the initial uncompleted ITAAC Notification that Southern submitted for ITAAC 570.

This was around -- it was back in 2016.

So, you can see the design commitment and the inspection test analysis and the acceptance criteria here. And specifically the acceptance criterion is that the as-built Class 1E cable between the incore thermocouple element and the connector boxes located on the integrated head package have a sheath.

So, initially, you know, in terms of scoping, there's two portions of interest here. So, the portion of the cables on the head area cable

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assemblies is a portion above the reactor vessel that, of course, is external to the reactor vessel.

And then the incore thimble assembly itself inside of the vessel is where the thermocouple resides.

And so, the way that Southern has always interpreted this ITAAC is that the scope for the acceptance criteria is for the Class 1E cables on the integrated head package.

And this goes back to 2016. You can see here that originally what we provided would be that the incore thermocouple elements and the connection panel located on the integrated head package are connected by 42 Class 1E head area cable assemblies.

It was actually 38 Class 1E head area cable assemblies.

But, from a scoping perspective, we've always been looking at the head area cable assemblies only. And not the incore portion.

The -- there was a public meeting back in 2016 where the NRC commented on this UIN that the discussion that we provided did not provide evidence that the cables installed in a manner could demonstrate with the cable performance function.

At the time, we were looking at this from

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an inspection only perspective. And that we were just looking at the sheaths themselves.

But, the NRC provided feedback that we should also provide justification to demonstrate that the cable actually performs.

So, we withdrew this UIN. And then in 2018 we submitted a new UIN. And the ICN that we submitted in 2020 essentially had no consequential changes from the UIN.

So, as we're looking through the ICN here, I'll point out there's, you know, two primary places that are slightly different. But, they're of very little consequence for the most part.

This ICN is the same as the UIN that was accepted in 2018. So, the -- let me -- there we go. Yeah.

All right. So, the first paragraph under the ITAAC determination basis is essentially a restatement of the design commitment, the ITA and the accepted criteria.

All of our ITAs have a very similar format in that regard, where the first paragraph really just repeats back the scope of what we're doing.

The second paragraph of the ICN identifies

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the scope of the inspection for the ITAAC. So, here we've defined the incore thermocouple elements and the connection panel located on the integrated head package, or connected by the 38 Class 1E head area cable assemblies.

So again, very similar to the initial. The scope has always been defined as the head area cable assembly.

This next paragraph was added in large part based on the initial feedback that we received from the NRC. So, we added discussion about the design of the internals of the cable.

So, you know, this particular cable essentially has wires or cables within the cables.

And each of the cables inside of the cables are also sheathed.

So, you've got like a round, you know, configuration of that sheath. And then you've got within that you've got cables that are sheathed as well.

And so that -- this paragraph was added specifically to explain the design of the internals of the head area cables and how the Class 1E and non-Class 1E wires are separated within the head area cable assembly.

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And that the design specifications do provide a requirement for the performance of the cable.

For overvoltage, insulation resistance, and continuity.

And that ultimately the successful test results indicated that the sheath, you know, internal to that cable, protect against credible single faults between the Class 1E and non-Class 1E signals.

So, this was, you know, based on the discussion that was -- that we had with NRC back in 2016. And really was just intended to describe the configuration of the cables.

The next paragraph of the ICN, we -- the difference is between the UIN and ICN here, we also cited the quality release's certificate of performance. We added the reference here. Very standard for a UIN to ICN change.

Originally when we were looking at the installation portion of this, we had cited a procedure that was for our contractor. Westinghouse actually did the field service reports, so we updated that here and provided a reference for that.

And specifically, the quality release and certificate of conformance covered the certificate of

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conformance and the acceptance testing of the head area cable assembly.

So, it -- it verified the head area cable assemblies met the design spec, including the performance test for overvoltage, insulation resistance, and continuity.

So, the, you know, the manufacture tests that were performed, you know, met this portion of the design specification that was discussed here. And so we added that in to show that manufacturer that was performed.

The field service report was an onsite installation where the head area cable assemblies were installed within our integrated head package.

This reference two that we reported, goes through the installation steps where we actually installed the head area cables. And also, there was pre-installation continuity and resistance data that was documented in this report as well.

And so, here what we were saying is that the field service report verifies the as-built cable assemblies were installed in accordance with design drawings and installation specification.

That's specifically what we're referring

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to, the head area cable assemblies were installed, and that we did the continuity and resistance data when it was installed within the integrated head package.

The next paragraph here, this discusses the head area cable assembly inspection to verify the design and installation specifications being satisfied to meet the design description of the COL.

So, we're -- we're just connecting the dots between the inspections that were performed and how that meets the design description.

And lastly, we've got our paragraph that summarizes that the inspections were performed in accordance with, here this is another change that we made from the UIN.

We say manufacture and vendor. Originally we had our construction verification program.

But, that institute did not do the field service report. That was done by Westinghouse. So, we just made that clarification here.

So, with that I will pause here and see if there are any additional questions?

MR. SANTOS: Chris, do you have anything?

Or Michael? Or anybody from the NRC staff?

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MR. SPENCER: Go ahead, Chris.

MR. WELCH: I'm just wondering, it might help me to understand just for me, what -- if you went through the specific questions that were asked, I think there were like five questions.

MS. ROBERTS: Yeah. Let me -- Tanny, if you will pull those questions up. Then I can go through those one by one.

MR. SANTOS: Okay. I will do that.

MS. ROBERTS: And while you're getting that, I'll just read them off for everybody. Okay.

So, the first question says, please discuss the quality release and certificate of conformance, which is the reference one. And the field service report, reference two, that are referenced in the ICN.

Specifically, please identify the following: A, the scope of work covered of each reference as it relates to ITAAC 570.

So, as I explained, the quality release certificate of conformance, which was Reference One, covered the certificate of conformance and the accepted testing of the head area cable assembly.

So, that included the head area cable

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assembly has met the design spec for performance testing of overvoltage, insulation resistance, and continuity.

And then for Reference Two, the field service report that covers the installation of the head area cable assembly onto the integrated head package, as well as the continuity and resistance data.

The second sub-item under that is, the reference's role and completion of the ITAAC. The quality release and certificate of performance verified the cable's performance as it relates to overvoltage, insulation resistance and continuity.

And the field service report contains the work steps that we're trying out for the installation of the head area cable assemblies onto the integrated head package. And did a pre- and post-installation check for continuity and resistance data.

MR. WELCH: Excuse me, this is Chris. So, just for clarity, these two documents are both dealing with the same 42 incore thimble assemblies head area cables, correct?

MS. ROBERTS: Yes. That is correct.

MR. WELCH: Thank you.

MS. ROBERTS: Um-hum. And I think that

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answers this next question for the specific cables covered. It's those cables for the IITAs that are actually in the head area cable assembly.

MR. WELCH: Um-hum. Okay.

MS. ROBERTS: Any follow up questions on Question One?

MR. WELCH: I have some more questions. But, I'll come back to it. We can just proceed on.

MS. ROBERTS: Okay. Question Two, reference two indicates that the incore thimble assemblies had not been installed. Please answer the following questions:

What was the basis for the ICN statements regarding the licensee performing an inspection that verified the as-built cable assemblies were installed in accordance with installation specifications, design drawings, design specifications, and work package requirement?

Again, the incore portion, the thimble assemblies themselves were not considered in the scope.

The head area cable assemblies were considered in the scope of this ITAAC. And they were installed in the integrated head package and verified as we've discussed on question one.

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And I would say basically the same answer for Question Bravo, which is what is the basis for the ICN not indicating that IITAs had not been installed?

The head area cable assemblies were identified as the scope for this ITAAC, you know, as far back as 2016.

And then lastly, for the I -- for this ICN, what process did the licensee use to ensure that the ICN was consistent with the underlying references?

We validated the ICN against the head area cable assemblies' information provided in the referenced documents. And yes, we use a very similar process for verifying ICN referenced documents where we go and pull it up and verify the statements that we're making in the ICN.

Any questions on Question Two?

MR. WELCH: I don't have any. Thank you.

MS. ROBERTS: All right. For Question Three, the NRC understands that the ICN for ITAAC 570 relies on tests and inspections performed at other than the final location.

Why does the ICN for ITAAC 570 not address the associated NEI 08-01 guidance in a manner similar to other ICNs?

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The NRC accepted UIN was used to inform the content of the ICN for the discussion of the quality release and certificate of conformance.

The accepted criterion was to perform inspection proceedings, which could be verified onsite.

The request to add additional information about the cable performance was not directly part of the acceptance criteria, but was added based on the NRC discussion back in 2016. So, we added that information. But, it was not explicitly part of the acceptance criteria.

MR. WELCH: I have a question. The sheathing that is the topic of this ITAAC is internal to the cables.

So, I don't understand how you would be able to verify the sheathing onsite by inspecting the cable. You would have to inspect the documents that created it. Right?

How would you go about verifying the sheathing for the cables that you received?

MS. ROBERTS: So, that goes back to the discussion in the third paragraph of the ITAAC determination basis. The design specification, you

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know, includes those performance tests for overvoltage, insulation resistance and continuity.

And as the successful test results indicate that the sheaths protect against the credible single fault --

MR. WELCH: Um-hum.

MS. ROBERTS: Between the Class 1E and non-Class 1E. And the field service report did record the pre- and post-installation resistance and continuity data.

MR. WELCH: Okay. Thank you. And I understand where you're -- where you're coming from. Thank you.

MS. ROBERTS: Um-hum. And then Question Four, what document verifies the 38 Class 1E thermocouple cables within the incore instrument thimble assemblies are encased in a protected sheath and demonstrate the acceptability of the sheath?

That document is SB3JE90-BQQ-001. This document, the certificate of conformance and the accepted testing for the IITAs for the incore portion.

And that document was not considered within the scope. And therefore was not referenced in the ICN.

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MR. WELCH: Okay.

MS. ROBERTS: All right. And then the last question, Number 5, reference two routes the incore instrument cable to the connector rack on the integrated head package cable bridge.

Where are the connector boxes located at which point the Class 1E cables become separated from the non-Class 1E cables?

And I'm going to let Tim Cureton explain the answer to that one for you.

MR. CURETON: Okay. This is Tim Cureton.

And on the back side of the refueling integrated head package bridge disconnect panels, there is a one to two transition flexible cable, it's connected to the bridge.

And then within that cable, I can't tell how far down, but that cable does split off directly, the 1E thermocouple wires, cabling from the rest of the detector cables that are non-1E.

So, I mean, there's not really a junction box. It's actually done in a transition of flexible cable where they're broken out at.

MR. WELCH: Thank you for answering that.

This ITAAC wording is -- oh, what's the word I want

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to use? Creates a number of problems, I'll just say.

Not the best. Not the best. I did find the W-cap last night. And the W-cap does show that pigtail, which goes from one connector splits out into two connectors.

That's what you're talking about, correct?

MR. CURETON: That's right.

MR. WELCH: On the refueling test connect panel, which is at the end of the bridge?

MR. CURETON: Correct.

MR. WELCH: Yeah. Okay. So, now I understand where it is. All right. So, could you go back up to the ITAAC itself, Tanny?

All right. So, I guess I now appreciate what I've heard on -- well, before I go on, does anyone have any other questions for Kelli Ann or Southern regarding the ITAAC Closure Notice?

(No response)

MR. WELCH: Okay. All right. So, I understand what occurred now, and I will freely admit, I'm a little disappointed in myself in not seeing the disconnect back in 2016 and 2018.

And again, in all just fair disclosure, you know, right from the get-go, we had this wrong in

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that we thought these sheaths originally were just to protect the cables.

And we thought they were external sheaths such that routing in the cables, et cetera, over the head package, they wouldn't get damaged or damaged during subsequent.

It wasn't until we started digging into the ITAAC itself and the UIN, the 2016 UIN that we discovered the real purpose for this ITAAC, which is to prevent loss of the Class 1E core thermocouple signals due to the inability or the lack of cable separation to meet the IEEE 384 standard requirements for cable separation.

And in the final safety evaluation report issued by the NRC, approving the DCD and Tier One documents. And then in the W-cap, it's very clear what has to be verified and protected.

And that is, it's the cables. And this specifically says the thermocouple cable or the, you know, the cables between the thermocouple element and the connector boxes.

But, according to the W-cap, to ensure the Class 1E cables are protected, -- excuse me, to ensure the Class 1E cables are protected, they installed

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stainless steel sheaths, I believe they are stainless steel, over the thermocouple wires, the two thermocouple wires, and over the self-powered detector or the neutron detection that run in the same sheath.

So, the ITAAC needs to verify the sheaths -- the sheaths inside the incore instrument thimble assembly, as well as the integrated head package cables back to the refueling disconnect panel where Class 1E cables become separated from the Class E -- the non-Class 1E cables.

That was the intent of this ITAAC. That's the safety significance of the sheaths. And that is what should be reflected in the ITAAC Closure Notice.

Do you have any questions on that? Some?

MS. ROBERTS: Hey Chris, this is Kelly Roberts again here at Vogtle 3 and 4. I understand what you're saying.

And you know, I agree with you know, the perspective that that is the design. And we are meeting the design requirement.

And as you know, the ITAAC is not always 100 percent verification of all aspects of the design.

And you know, based on the language that ended up in the acceptance criteria, and the way that

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Southern has put forth the ITAAC methodology that's been accepted by the NRC, you know, I understand what you're saying.

I agree with you that the design includes more than what we verified for the scope of the ITAAC.

And I believe that we are meeting the ITAAC.

And so I guess I'm just trying to understand, are you saying that the ITAAC itself is incorrect?

Or are you saying that the scoping that we've agreed on for the last five years is incorrect?

Like help me understand what you're saying.

MR. WELCH: I understand. Yeah, sorry for interrupting you. I'm saying the scope is incorrect.

And the ITAAC wording could have been better. But, the intent of this ITAAC is to verify that the cables have the protective sheaths that were required in the SER and explained in the W-cap.

And that cable runs, that sheath runs from the thermocouple element down inside the incore instrument thimble assembly, all the way up to the refueling disconnect panel, where the cables become

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separated.

You know, as you can tell from my reaction is, we thought you were talking all the cables. And you're only talking the head cables.

And that became very clear when I looked at both the certificate of conformance and the field service report.

But, as you know, in Headquarters, we are looking at the wording in the ITAAC Closure Notice itself. And basically performing an audit, not an independent inspection.

So, we do not go back to your references, when one, they're not available to us in Headquarters typically.

But, we typically do not go to the source requirements and perform an independent inspection.

We look at the wording as we read it, as an informed reader, and make an assessment, does the wording support the ITAAC and it's closure?

Unfortunately, we were off in that the wording, you know, we thought it was all cables, and it was only the head area cable. And we should have identified that. I freely admit that.

This should have come up back in 2016.

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But, we made a mistake. And I believe when you look at what is the safety concern, then you know, and the specific words, that's how I have to read, that's how I read the ITAAC.

Again, we'll take it back. But, I believe that was the intent of this ITAAC.

MR. BOWMAN: Hey Kelli, this is Greg Bowman with VPO. Just real quick. I mean, I think this goes without saying.

But, you know, we -- we don't -- we're not going to reach a decision on, you know, a final decision on this, at this public meeting.

You know, we've heard a lot of very good input from you that we're going to have to take back and think about a little bit. But, you know, you're obviously hearing where Chris is coming from.

But, we do need to -- the NRC needs to kind of circle back and assess what you gave us today before we actually, you know, reach a final, a final conclusion and communicate that to you.

Hopefully, that goes without saying. And I see Michael, you have your hand up.

MR. SPENCER: Yes, I do. I have some questions. So, I'm not going to be asking questions

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on the intent of the ITAAC.

I'm going to be asking based on more of what the ITAAC says, because -- and this, and also what the ITAAC Closure Notification says so I can better understand what's going on.

So, the scope of the ITAAC is per the acceptance criteria, the as-built Class 1E cables between the incore thermocouple elements and the connector boxes located on the integrated head package.

So, based on what I heard, I just want to make sure I heard this correctly, is you're saying, the SNC is saying, you always understood the incore instrument thimble assemblies to be outside the scope of this ITAAC. Is that correct?

MS. ROBERTS: This is Kelli Roberts. Yes, that is correct.

MR. SPENCER: Okay. So, I guess looking at the words, so there is something called an incore thermo -- I mean, my understanding of the system as it was explained in a previous public meeting about a month ago, is basically there -- you have the reactor vessel head.

There's a quick lock on that head. And there's a connector on top of the head and a connector

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on the bottom of the head.

And I guess it sounds like you all are saying, maybe -- you're saying the head area cables are those that are connected to the top of the head.

Is that correct?

MS. ROBERTS: Correct. They're the head area cable assemblies that are on -- that are actually on the integrated head package.

They are above the quick lock on the top of the reactor vessel head.

MR. SPENCER: Okay. I guess why wouldn't, and this maybe, this is a basic question for me, why wouldn't the cables that are connected to the bottom of the vessel head be considered head area cables?

MS. ROBERTS: So, you know, from our perspective, the acceptance criterion was for the as-built Class 1E cables located on the integrated head package having achieved.

Internal to the vessel -- the incore thimble assembly itself is really considered a single component that of course, is made up of different, you know, piece parts.

But, that was our perspective since 2016.

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MR. SPENCER: Okay. So you're --

MR. CURETON: This is Tim Cureton.

MR. SPENCER: Yeah, go ahead.

MR. CURETON: This is Tim Cureton, the Project Manager. Just to make sure we're clear, because you're saying there was a connection below the head and above the head.

And I just want to make sure we understand.

And it may have been miscommunicated at the last meeting that I was at.

But, the incore thimble assembly actually connects through the top of the head and runs all the way down as one single unit.

So, there's only one connection, and it's at the top of the head at the quick lock between the IITA and the head area cable assemblies.

So, I just wanted to make sure that we clear that up. So, there's not a second connection.

It's just one at the thimble assembly to the head area cable assembly. And then that connects from there to the bridge at the head, integrated head package.

MR. SPENCER: Okay. And maybe, I'll leave it to Chris to see if he has a follow upon that.

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But, I have some other questions.

So, I guess the question I had is, there's something called an incore thermocouple element. So, what does that mean?

How do you understand that term?

MS. ROBERTS: This is Kelli with Southern.

Our interpretation of the incore thermocouple element is the IITA itself.

MR. SPENCER: Okay. And I understand the IITA is both kind of instruments and cables put together. Is that right?

MS. ROBERTS: That's correct, yes. It is made up of multiple piece parts.

MR. SPENCER: Okay. And I guess one other question I have is, in a previous public meeting, this ITAAC ICN was cited as a precedent for what the SNC was proposing for ITAAC 515.

And is that -- did you all change that position?

MS. ROBERTS: So, when we originally cited that as precedent, the thought process was is when we submitted this ICN, you know, we had very similar to the discussion that Eddie Grant has provided before, you know, we had verified the extent of installation

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and as-built to the extent that we could prior to fueling.

So, the head area and cable assemblies were installed in the integrated head package. The integrated head package was on the head stand.

And you know, while -- I'll say during operations, of course, the integrated head package is on top of the vessel. You know, it was as close as can be given the time frame that we submitted.

So, that was the thought process or logic for identifying that as an ICN with precedence.

MR. SPENCER: Okay. Because we, I mean, I think we understood that what you were saying that the IITAs were within the scope of the ITAAC.

And that was somehow precedent for 515.

MS. ROBERTS: No. Sorry if we miscommunicated that. But, the incore thimble assemblies were not verified as part of this ITAAC.

MR. SPENCER: Okay. I'm going to -- I'll let Chris or if anyone else has any questions.

MR. WELCH: Yeah. And this is Chris Welch again. And I'm pretty sure I have this straight, but I want to make sure I fully understand the configuration.

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So, there are 42 incore thimble assemblies. All 42 incore thimble assemblies contain one thermocouple and seven self-powered detectors for neutron detection, or power detection.

So, within the thimble assembly, the thermocouple has two leads that come up in one stainless steel sheath, and the seven leads from the self-power detector come up within a separate stainless steel sheath to make up one incore thermal element. Correct?

One incore instrument assembly. Did I get that correct?

MS. ROBERTS: Chris, this is Kelli Roberts here at Vogtle 3 and 4. We're going to go on mute for just a second and we've got some design drawings here. And we're going to verify everything you just said.

MR. WELCH: Yeah.

(Meeting muted)

MS. ROBERTS: Hey Chris, this is Kelli Roberts again here at Vogtle 3 and 4. Thank you for your patience.

MR. WELCH: Yeah.

MS. ROBERTS: That question is very difficult to answer without going through and showing you different diagrams of the different section cutouts

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along different points.

MR. WELCH: Okay.

MS. ROBERTS: So, I -- just I don't want to mislead you in saying a simple yes or no.

MR. WELCH: Okay.

MS. ROBERTS: It would be best if we could look at the proprietary drawings to answer that question.

MR. WELCH: I'm sorry to interrupt. It's not really that important to this discussion.

But, basically I've got a number of wires that come up inside the incore thimble assembly. And now I have -- there's eight quick locks on the vessel, on the vessel head.

MS. ROBERTS: Um-hum.

MR. WELCH: And of those eight quick lock assemblies, six of them have five incore thimble assemblies that come up and penetrate through the quick lock plug.

And those six incore thimble assemblies, or excuse me, the five incore thimble assemblies each have their own connectors and get connected to their own head areas cable that runs up to the freely disconnect panel, correct?

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MS. ROBERTS: Yes. That is correct.

MR. WELCH: Okay. I just -- I was just wanting to make sure I had that configuration right.

I've looked at the diagrams. And it's very confusing whether the self-powered detectors each cables within its own sheath and all of them are then sheathed. Or whether there's one sheath.

So, but it's not that important. What is important is the sheaths purpose, and that's, you know, we go to the acceptance criteria, and the acceptance criteria is specific to the cables, the Class 1E cables, which are the 38 thermocouple cables that run between the thermocouple elements and the connector boxes.

It's the connector boxes that are located on the integrated head package. That's, in my opinion, what that on the integrated head package is referring to, not the cables.

Again, as Greg said, you know, we're not going to make a final decision here. I just want you to understand where my position is.

And you know, my viewpoint that the scope of this ITAAC is inclusive on both the incore thermocouple assemblies as well as the head area cables.

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But, we'll be getting back to you with a final agency position. Other than that, I do not have any other questions.

And I appreciate your taking the time to help me better understand this. It's important that I do understand and that we both understand how we're at so we can be confident that we don't have issues with other ITAAC Closure Notices.

So, thank you very much. And with that, I'll ask if anyone else has any other questions. And if not, turn it back to Tanny.

MR. SANTOS: Michael, do you have any other comments or questions you'd like to make?

MR. SPENCER: No.

MR. SANTOS: Okay. Kelli, anyone -- or you or anyone else from SNC have any final comments?

MS. ROBERTS: Hey Tanny, this is Kelli again here at Vogtle 3 and 4. No questions. I just want to thank the staff for all the preparation going into this.

And we appreciate the opportunity to discuss. And we look forward to hearing from you.

We'll be considering the feedback that we've received today. And looking forward to our next

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topic. Thank you.

MR. SANTOS: Thanks Kelli. So, with that, I'd like to ask, is there any member of the public online that would like to make a comment or ask a question?

If so, could you do so now?

(No response)

MR. SANTO: Hearing none. I want to confirm Chris, we do not need to have a closed session to have SNC go through those diagrams and the configuration for you, correct?

MR. WELCH: That is correct. It's not necessary to --

MR. SANTOS: Okay.

MR. WELCH: Answer these questions. We may in the future want to go through the diagrams.

But, right now I'm satisfied with what I've heard. Thank you.

MR. SANTOS: Okay. So, Kelli, thanks. Thanks everyone. Chris, Michael, Kelli, everyone who participated.

With that, I will like to adjourn the meeting. Thank you all.

MS. ROBERTS: Thanks everybody.

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MR. WELCH: Thanks Tanny.

MR. SPENCER: Thanks Kelli.

(Whereupon, the above-entitled matter
went off the record at 10:34 a.m.)

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