

## Vogle PEmails

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**From:** Habib, Donald  
**Sent:** Monday, July 2, 2018 8:14 PM  
**To:** Vogle PEmails  
**Subject:** FW: RE: Discussion Topic for Future Public Meeting (Tier 2\* - ITP)  
**Attachments:** Proposed License Criterion wording - NH\_vB.pdf

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**From:** Haggerty, Neil [mailto:X2NHAGGE@SOUTHERNCO.COM]  
**Sent:** Monday, July 02, 2018 4:55 PM  
**To:** Habib, Donald <Donald.Habib@nrc.gov>; Hicks, Thomas E. <X2TEHICK@southernco.com>; Amundson, Theodore Edwin <X2TAMUNS@southernco.com>; Redd, Jason P. <JPREDD@southernco.com>; Roberts, Kelli Anne <KROBERTS@southernco.com>  
**Cc:** Sparkman, Wesley A. <WASPARKM@southernco.com>; Aughtman, Amy G. <AGAUGHTM@SOUTHERNCO.COM>; Chamberlain, Amy Christine <ACCHAMBE@southernco.com>; Dixon-Herrity, Jennifer <Jennifer.Dixon-Herrity@nrc.gov>; Kavanagh, Kerri <Kerri.Kavanagh@nrc.gov>; Patel, Chandu <Chandu.Patel@nrc.gov>; Prescott, Paul <Paul.Prescott@nrc.gov>; Bradford, Anna <Anna.Bradford@nrc.gov>; Vogle PEmails <Vogle.PEmails@nrc.gov>  
**Subject:** [External\_Sender] RE: Discussion Topic for Future Public Meeting (Tier 2\* - ITP)

Don,

We drafted a response to the question from ITP. Please forward this to them in support of a discussion on Thursday, 7/5, morning.

Thank you,

*Neil Haggerty*

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**Neil Haggerty | Southern Nuclear Operating Company**

Nuclear Development Regulatory Affairs – VEGP 3&4 Licensing  
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**From:** Habib, Donald [mailto:Donald.Habib@nrc.gov]  
**Sent:** Friday, June 29, 2018 3:13 PM  
**To:** Haggerty, Neil <X2NHAGGE@SOUTHERNCO.COM>; Hicks, Thomas E. <X2TEHICK@southernco.com>; Amundson, Theodore Edwin <X2TAMUNS@southernco.com>; Redd, Jason P. <JPREDD@southernco.com>  
**Cc:** Sparkman, Wesley A. <WASPARKM@southernco.com>; Aughtman, Amy G. <AGAUGHTM@SOUTHERNCO.COM>; Chamberlain, Amy Christine <ACCHAMBE@southernco.com>; Dixon-Herrity, Jennifer <Jennifer.Dixon-Herrity@nrc.gov>; Kavanagh, Kerri <Kerri.Kavanagh@nrc.gov>; Patel, Chandu <Chandu.Patel@nrc.gov>; Prescott, Paul <Paul.Prescott@nrc.gov>; Bradford, Anna <Anna.Bradford@nrc.gov>; Vogle PEmails <Vogle.PEmails@nrc.gov>  
**Subject:** Discussion Topic for Future Public Meeting (Tier 2\* - ITP)

Neil et al. –

The staff would like to discuss the discussion topic at the public meeting on July 5.

Thanks

Don Habib  
Project Manager  
NRO/DLSE, Licensing Branch 4  
O-8D13  
301-415-1035

In Vogtle Electric Generating Plant's (VEGP's) Units 3 and 4 Final Safety Analysis Report (FSAR), Chapter 14, "Initial Test Program," Revision 6, it states that the overall objective of the initial test program is to demonstrate that the plant has been constructed as designed, that the systems perform consistent with the plant design, and that activities culminating in operation at full licensed power including initial fuel load, initial criticality, and power ascension are performed in a controlled and safe manner.

Special tests to further establish a unique phenomenological performance parameter of the AP1000 design features beyond testing performed for Design Certification of the AP600 and that will not change from plant to plant, are performed for the first plant only. Because of the standardization of the AP1000 design, these special tests (designated as first plant only tests) are not required on follow plants. These first plant only tests are identified in the individual test descriptions (See Subsections 14.2.9 and 14.2.10 of the VEGP 3&4 FSAR). The following is a listing of the first plant only tests, and the corresponding section in which they appear:

<u>First Plant Only Test</u>	<u>Section</u>
IRWST Heatup Test	14.2.9.1.3 Item (h)
Pressurizer Surge Line Stratification Evaluation	14.2.9.1.7 Item (d)
Reactor Vessel Internals Vibration Testing	14.2.9.1.9 – Prototype Test
[Natural Circulation Tests]*	14.2.10.3.6, [14.2.10.3.7]*
Rod Cluster Control Assembly Out of Bank Measurements	14.2.10.4.6
Load Follow Demonstration	14.2.10.4.22

Other special tests which further establish a unique phenomenological performance parameter of the AP1000 design features beyond testing performed for Design Certification for the AP600 and that will not change from plant to plant, are performed for the first three plants. Because of the standardization of the AP1000 design, once these special tests have affirmed consistent passive system function they are not required on follow plants. These tests required on the first three plants are identified in the individual test descriptions (See Subsection 14.2.9). The following is a listing of the tests required on the first three plants, and the corresponding section in which they appear.

<u>First Three Plant Tests</u>	<u>Section</u>
Core Makeup Tank Heated Recirculation Tests	14.2.9.1.3 Items (k) and (w)
ADS Blowdown Test	14.2.9.1.3 Item (s)

These tests are Tier 2\*, as described in the VEGP 3&4 FSAR.

In letter dated December 21, 2017, "Southern Nuclear Operating Company Vogtle Electric Generating Plant Units 3 and 4 Request for License Amendment and Exemption: Changes to Tier2\* Departure Evaluation Process (LAR-17-037), the licensee requests to apply the existing departure evaluation

process for Tier 2 departures in the evaluation of certain Tier 2\* departures. This would entail an exemption from certain change requirements in 10 CFR Part 52, Appendix D, to allow departures from Tier 2\* information evaluated against criteria proposed in a new License Condition without a license amendment by expanding the applicability of the existing Tier 2 evaluation process.

The staff did not identify in the VEGP 3&4 FSAR chapter, "Tier 1" Revision 5, any Tier 1 Inspection, Tests, Analyses and Acceptance Criteria (ITAAC), with the exception of the natural circulation test, that address the first-plant-only and third-plant-only tests described to be performed in accordance with Tier 2.

The staff is concerned that SNC would be able to make certain changes to the Tier 2\* test descriptions without NRC approval. In particular, where a change to a Tier 2\* test description would influence the outcome of the test such that it would affect whether the corresponding Tier 1 acceptance criteria would be met, the change should require NRC approval.

The staff would like SNC to discuss either revising SNC's proposed screening criteria license condition to assure that such a change would come to NRC for approval, or explaining why it is not necessary.

**Hearing Identifier:** Vogtle\_COL\_Docs\_Public  
**Email Number:** 310

**Mail Envelope Properties** (BY1PR09MB0935FE8D1C10AB3768C139C897420)

**Subject:** FW: RE: Discussion Topic for Future Public Meeting (Tier 2\* - ITP)  
**Sent Date:** 7/2/2018 8:14:26 PM  
**Received Date:** 7/2/2018 8:14:31 PM  
**From:** Habib, Donald

**Created By:** Donald.Habib@nrc.gov

**Recipients:**  
"Vogtle PEmails" <Vogtle.PEmails@nrc.gov>  
Tracking Status: None

**Post Office:** BY1PR09MB0935.namprd09.prod.outlook.com

Files	Size	Date & Time
MESSAGE	7793	7/2/2018 8:14:31 PM
Proposed License Criterion wording - NH_vB.pdf		705522

**Options**  
**Priority:** Standard  
**Return Notification:** No  
**Reply Requested:** No  
**Sensitivity:** Normal  
**Expiration Date:**  
**Recipients Received:**

## LAR-17-037 – ITP Question

### Proposed License Condition:

#### (13) Departures from Plant-specific DCD Tier 2\* Information

SNC is exempt from the requirements of 10 CFR Part 52, Appendix D, Paragraphs II.F and VIII.B.6 that invoke the Tier 2\* change process that requires prior NRC approval via a license amendment for departures from Tier 2\* information; and Paragraph VIII.B.5.a for Tier 2 information that involves a change to, or departure from, Tier 2\* information; except for departures from Tier 2\* information that:

\* \* \*

6. Results in a material change to the Passive Residual Heat Removal Heat Exchanger (first plant test), the Core Makeup Tank Heated Recirculation Tests (first three plants test), or the Automatic Depressurization System Blowdown Test (first three plants test);

### Criterion 6 (Initial Test Program) detailed guidance:

A material change influences the outcome of the test such that it would affect whether the test objectives or performance criteria would be met.

- The following are examples of material changes:
  - The addition, deletion, or alteration of a test step
  - Alteration of a detail that serves as the basis for acceptance in an NRC Final Safety Evaluation Report (FSER) related to the affected test
- The following examples are not material changes:
  - Editorial changes
  - Clarifications to improve reader understanding
  - Correction of inconsistencies within the document which are clearly discernible (e.g., between sections)
  - Changes that do not change the meaning or substance of information presented (e.g., reformatting or removing detail as described in NEI 98-03, Revision 1, *Guidelines for Updating Final Safety Analysis Reports*, Section A4 [ADAMS Accession Number ML003779028])

### Criterion 6 (Initial Test Program) Bases:

The VEGP 3 and 4 Plant-specific Tier 1 DCD does not contain information related to the special tests that establish a unique phenomenological performance parameter of the AP1000 design features beyond testing performed for Design Certification for the AP600 and that will not change from plant. Proposed Criterion 6 would provide assurance that material changes to Tier 2\* information related to these special tests would receive prior NRC approval. The special tests (i.e., first plant tests and first three plant tests) for which some Tier 2\* information is contained in the VEGP 3 and 4 plant-specific Tier 2 DCD are:

- Passive Residual Heat Removal Heat Exchanger (first plant test) identified in UFSAR Section 14.2.10.4.29,
- Core Makeup Tank Heated Recirculation Tests (first three plants test) identified in UFSAR Section 14.2.9.1.3 Items (k) and (w)), and
- Automatic Depressurization System Blowdown Test (first three plants test) identified in UFSAR Section 14.2.9.1.3 Item (s)).