## ClinchRiverESPHFNPEm Resource

**From:** Fetter, Allen
**Sent:** Thursday, October 05, 2017 9:48 AM
**To:** Schiele, Raymond Joseph
**Cc:** Sutton, Mallecia
**Subject:** NRC-TVA Public Meeting 20171011_Topics for Discussion.docx
**Attachments:** NRC-TVA Public Meeting 20171011_Topics for Discussion.docx

Ray,

Attached is the “Topics for Discussion” document NRC has prepared to support the October 11, 2017 NRC-TVA public meeting. Before I process the document into ADAMS, please check for any factual errors and inconsistencies. If you could get it back to me on this by 2pm today, I would greatly appreciate it.

Thanks,

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**Hearing Identifier:** ClinchRiver_ESP_HF_NonPublic
**Email Number:** 205

**Mail Envelope Properties** (Allen.Fetter@nrc.gov20171005094700)

**Subject:** NRC-TVA Public Meeting 20171011_Topics for Discussion.docx
**Sent Date:** 10/5/2017 9:47:32 AM
**Received Date:** 10/5/2017 9:47:00 AM
**From:** Fetter, Allen

**Created By:** Allen.Fetter@nrc.gov

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"Sutton, Mallecia" <Mallecia.Sutton@nrc.gov>
Tracking Status: None
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Tracking Status: None

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| MESSAGE | 562 | 10/5/2017 9:47:00 AM | |
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**Priority:** Standard
**Return Notification:** No
**Reply Requested:** No
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**Expiration Date:**
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**NRC-TVA Publicly-Noticed Meeting (10/11/2017) Topics for Discussion: Clarification of TVA Responses (TVA Letter CNL-17-099) to NRC RAI 5 (eRAI-8991), RAI 6 (eRAI-9035), and TVA Responses (TVA Letter CNL-17-127) to RAI 9 (eRAI-8972) for the Clinch Nuclear Site ESPA Review**

1: Discussion of modifications to paragraph 5 of Section 2.5.1.2.6.7 made in response to Question 02.05.01-02 in RAI 5 (eRAI-8991). Specifically, paragraph 5 states that current tectonic stresses, the associated broad stress regime of the southeastern US, and residual stresses are not expected in the rock mass at shallow depths (i.e., hundreds of feet). NRC staff needs clarification as to why these stresses related to the regional stress field, in which the site is located, are not expected at shallow depths. Alternatively, if they exist at shallow depths, their magnitude is such that they will not pose a hazard for foundation stability or construction.

2: Discussion of modifications to SSAR Section 2.5.1.2.6.3 (“Fracture Zones”) that are part of the response to Question 02.05.04-01 in RAI 6 (eRAI-9035). Specifically, this section refers to calcite and dolomite-filled fractures and bedding planes. That type of filling is also mentioned in SSAR Section 2.5.1.2.6.3 under modifications to SSAR Sections 2.5.4.1.3.3 (“Weathered and Fracture Zones”) and 2.5.4.10.1.2 (“Allowable Bearing Capacity”). NRC staff needs clarification on whether or not the calcite and dolomite minerals, described as filling and “healing” fracture zones, fractures, and bedding planes, show any evidence of tectonic deformation (e.g., due to fault displacement along or across these features) that is younger than the mineralization.

3: Discussion of modifications to SSAR Section 2.5.1.2.6.3 (“Fracture Zones”) that are included in the response to Question 02.05.04-01 in RAI 6 (eRAI-9035). Specifically, this section state fractures zones that occur along bedding planes or fractures likely represent early dissolution of limestone. Modifications to SSAR Section 2.5.4.1.3.3 (“Weathered and Fracture Zones”) also make this statement. NRC staff needs clarification regarding the field evidence used to conclude that the fracture zones are related to dissolution and are not tectonic in nature, or if they are tectonic features, they are associated with older Alleghanian (> 252.17 Ma) deformation.

4: Discussion to clarify and reconcile partially incomplete (inconsistent) response to Question 02.03.03-2 in RAI 9 (e-RAI 8972) and proposed mark-ups to text under SSAR Section 2.3 regarding whether wind direction (as well as wind speed) data input to summaries and atmospheric dispersion modeling analyses represent scalar or vector averages.