

## ArevaEPRDCPEm Resource

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**From:** Tesfaye, Getachew  
**Sent:** Wednesday, October 12, 2011 3:31 PM  
**To:** 'WILLIFORD Dennis (AREVA)'  
**Cc:** 'RYAN Tom (AREVA)'; 'LENTZ Tony (EXTERNAL AREVA)'; Hearn, Peter; DeMarshall, Joseph; Harbuck, Craig; Morton, Wendell; ArevaEPRDCPEm Resource  
**Subject:** EPR CH 16 TS Audit Plan - October 25 to 28, 2011  
**Attachments:** EPR CH 16 TS audit plan October 25 to 28 2011.docx

Dennis,  
Attached please find the final audit plan for the October 25-28, 2011, Tech Spec audit in Charlotte.  
Thanks,  
Getachew

**Hearing Identifier:** AREVA\_EPR\_DC\_RAIs  
**Email Number:** 3467

**Mail Envelope Properties** (0A64B42AAA8FD4418CE1EB5240A6FED14A91C7DD43)

**Subject:** EPR CH 16 TS Audit Plan - October 25 to 28, 2011  
**Sent Date:** 10/12/2011 3:30:37 PM  
**Received Date:** 10/12/2011 3:30:41 PM  
**From:** Tesfaye, Getachew

**Created By:** Getachew.Tesfaye@nrc.gov

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Tracking Status: None

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MESSAGE	136	10/12/2011 3:30:41 PM
EPR CH 16 TS audit plan October 25 to 28 2011.docx		28677

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**AUDIT PLAN TO REVIEW SELECTED AREAS RELATED TO  
U.S. EPR FSAR CHAPTER 16 AND SUPPORTING TECHNICAL REPORTS**

**APPLICANT:** AREVA NP, Inc.

**APPLICANT CONTACTS:** Dennis Williford

**TIME:** 8:00 am to 4:00 pm on 10/25/2011  
8:00 am to 4:00 pm on 10/26/2011  
8:00 am to 4:00 pm on 10/27/2011  
8:00 am to 4:00 pm on 10/28/2011

**LOCATION:** AREVA NP, Inc.  
7207 IBM Drive, Mail Code CLT 2B  
Charlotte, NC 28262

**REVIEWERS:** Joseph DeMarshall (NRO)  
Craig Harbuck (NRO)  
Wendall Morton(NRO)  
Getachew Tesfaye (NRO)  
Pete Hearn (NRO)

**BACKGROUND**

AREVA NP, Inc. has submitted to the U.S. Nuclear Regulatory Commission (NRC) a Final Safety Analysis Report (FSAR) for its application of the U.S. Evolutionary Power Reactor (EPR) in December, 2007. NRC staff has initiated the design certification review on March 19, 2008. The U.S. EPR design relies on a unique design for the EPR Instrumentation and Control System, which results in a unique approach to the Instrumentation and Control System Tech Specs.

In order for the staff to clarify and comprehend the EPR Tech Specs, the staff is proposing an audit that will be carried out at the AREVA office in Charlotte, N. C. The review of the additional technical documents, made available by AREVA at its office, will be facilitated by the presence of AREVA personnel at the audit. Specifically, the staff request that the applicant provide documentation relevant to the discussion topics provided in Attachment B. The requested documentation includes pertinent technical documents that support the

topics identified in Attachment B. The audit is needed to resolve existing questions in accomplishing the U.S. EPR review schedule in an efficient manner and to support the review in conformance with SRP Section 16.3.

#### **PURPOSE AND APPROACH**

The purpose of this audit is to review additional documents and calculations provided by AREVA that pertain to U.S. EPR FSAR Tier 2, Section 16.3. The topics covered in the audit will specifically focus on the Instrumentation and Control System Technical Specifications and other topics as identified in Attachment B.

To achieve the review goals in an efficient manner, the staff assembled an interdisciplinary audit team. To facilitate and expedite the work, it is foreseen that the audit will be attended by representatives from AREVA who will introduce the audit topics and provide supporting documents and technical evidence to the reviewers. The staff will document the audit findings in an audit report.

#### **AUDIT ACTIVITIES AND SCHEDULE**

The NRC staff will conduct the review over a period of four business days. Following the audit, each technical reviewer will prepare a separate audit report with specific findings will send the report to Pete Hearn by 11/9/2011. The NRC staff responsible for the audit will assemble and prepare a final audit report. The final report will be made available to all contributors for their concurrence by 11/16/2011. Any final notes by the contributors will be communicated to Pete Hearn no later than 11/02/2011.

A detailed agenda for the audit is presented in Attachment A. A detailed list of discussion topics is presented in Attachment B. If necessary, any circumstances related to the conductance of the audit will be communicated to Joseph DeMarshall (NRC) at 301-415-5152 or at [Joseph.DeMarshall@nrc.gov](mailto:Joseph.DeMarshall@nrc.gov).

**Attachment A**

**Agenda**

**NRC Instrumentation and Control System TS Audit  
Pertaining to the Review of the U.S. EPR FSAR, Chapter 16.3  
October 25-28, 2011  
Charlotte, N. C.**

**Tuesday, October 25, 2011:**

<b>8:00 am-12:00 p.m.</b>	<b><u>Audit Entrance / Introduction</u></b> [NRC/AREVA]
<b>1:00-4:00 p.m.</b>	<b>Discussion of Topics Identified in Attachment B</b> <b>[AREVA]</b>

**Wednesday, October 26, 2011:**

<b>8:00-12:00 p.m.</b>	<b>Discussion of Topics Identified in Attachment B</b> <b>[AREVA]</b>
<b>1:00-4:00p.m.</b>	<b>Discussion of Topics Identified in Attachment B</b> <b>[NRC/AREVA]</b>

**Thursday, October 27, 2011:**

<b>8:00-12:00 p.m.</b>	<b>Discussion of Topics Identified in Attachment B</b> <b>[AREVA]</b>
<b>1:00-4:00p.m.</b>	<b>Discussion of Topics Identified in Attachment B</b> <b>[NRC/AREVA]</b>

**Friday, October 28, 2011:**

<b>8:00-12:00 p.m.</b>	<b>Discussion of Topics Identified in Attachment B</b> <b>[AREVA]</b>
<b>1:00-4:00p.m.</b>	<b><u>Audit Summary and Exit</u></b> [NRC/AREVA]

**Attachment B**  
**U.S. EPR Instrumentation and Controls TS Audit Topics**  
**October 25-28, 2011**

**Instrumentation LCO and Bases Sections 3.3 and B 3.3:**

**AREVA and NRC Staff to concurrently perform a line-by-line review of all Instrumentation LCO 3.3.1 Condition statements, Surveillance Requirements, Component item information in Table 3.3.1-1, and Function item information in Table 3.3.1-2. The line-by-line review is necessary on the basis that (1) TS continue to undergo extensive revision (i.e., incorporation of new material and large scale changes to previously approved information) because the I&C design has yet to be finalized, (2) incorporation of proposed I&C design changes is adding to the complexity of the U.S. EPR component-based TS, and (3) the current level of information is insufficient for the staff to make a determination regarding the inclusion of additional function processor and manual actuation switch components in the TS.**

**AREVA and NRC Staff to concurrently review Instrumentation Bases Section B 3.3 in its entirety to ensure completeness, accuracy and alignment with LCO Section 3.3.**

**AREVA and NRC Staff to concurrently review all outstanding draft open item RAI responses (including FSAR markups) scheduled for submittal by 9/30/11.**