

June 27, 2011

APPLICANTS: AREVA NP

PROJECT: U.S. EPR Design Certification Docket 052-020

SUBJECT: SUMMARY OF MARCH 17, 2011, PUBLIC TELECONFERENCE WITH AREVA NP DISCUSSING DRAFT DOCUMENTATION RELATED TO THE U.S. EPR FINAL SAFETY ANALYSIS REPORT SECTIONS 7.5 AND 7.7.

On March 17, 2011, a Category One public teleconference was held between the U.S. Nuclear Regulatory Commission (NRC) staff and representatives of AREVA NP. The purpose of this teleconference was to obtain clarification on the intent and applicability of revised materials presented in draft submittals of Final Safety Analysis Report (FSAR), Sections 7.5 and 7.7. The meeting notice with the agenda can be found in the Agencywide Documents Access and Management System (ADAMS) Accession No. ML110620588. The agenda included identification of potential discussions of proprietary information related to the topics of discussions, and also for public interactions with the staff. Enclosure 1 lists the meeting attendees.

The meeting started at 1:05 p.m. After the introductions of the attendees and opening remarks, meeting ground rules and logistics were announced. The staff then briefly reviewed the agenda items and identified for the member of the public in attendance, the ADAMS Accession number of the AREVA NP document under discussion (ADAMS Accession No, ML110680006).

The staff began the session by addressing a series of clarifying questions to AREVA NP on the first section of interest, FSAR Section 7.5, which is contained as a mark-up to the AREVA NP response to RAI 442, Question 07.01-28 contained in ADAMS Accession No, ML110680006.

1. Table 7.5-1 labeled, "Initial Inventory of Post-Accident Monitoring Variables," does not appear to include Containment Hydrogen Monitors. Title 10 of the *Code of Federal Regulations* (10 CFR) 50.34(f)(2)(xvii) identifies the need for Post Accident Hydrogen Monitors.

Response: Section 7.5.4, bullet 3 identifies that Containment Hydrogen monitors are provided. AREVA NP stated that as a result of Regulatory Guide (RG) 1.97, Revision 4 required analysis, the hydrogen monitors "screened out" and are, therefore, not included in this table.

The NRC staff took an action to evaluate this position.

2. There appears to be a lack of detail in Section 7.5 regarding rate trending and recording as required by Institute of Electrical and Electronics Engineers (IEEE) 497-2002, Sections 8.2 and 8.7.

The details for compliance with these requirements for Process Information and Control System(PICS) and Safety Information and Control System(SICS) will be presented in Section 7.1

3. On page 7.5-4, there is a cross-reference to FSAR Section 10.4.9. This reference appears to be incorrect.
4. Section 7.5 will require clarifying text to reflect the reclassification of the Qualified Display System (QDS).
5. Section 7.5.2.2.1. There is a language correction needed to remove the implication that the Post-Accident Monitoring (PAM) Table 7.5-1 information is draft or conceptual in nature. "Initial" should be eliminated from both the text and the table.
6. The relationship between Tier 1, Section 3.7 and the related Inspection, Test, Analysis, and Acceptance Criteria (ITAAC) in Section 7.5.2.2.1 raised a concern regarding the ability to properly identify for ITAAC closure and final addressing of the related Combined License (COL) Information, the need to ensure that all aspects of RG 1.97, Revision 4 have been satisfied. After discussion the NRC staff took an action to further review the requirements.
7. An FSAR writing item was identified where Section 7.5.6 dropped the word, "revision 4," from its address of RG 1.97, Revision 4.
8. The NRC staff asked whether the Service Unit (SU) connection in-place alarm would alarm in the control room. AREVA NP confirmed that the Alarm will be presented in the control room.
9. The NRC staff asked if QDS is part of SICS. AREVA responded in the affirmative. Also, the staff asked if here is a separate SU for the QDS which will be identified in Section 7.1.
10. The NRC staff noted that on page 7.7-2 of FSAR Revision 2 made reference to a Section 3.9.9 which does not exist. AREVA NP postulated that they believe the correct Section reference is 3.9.4.
11. On page 7.7-4 the words "as an example" should be removed from Section 7.7.2.1.2 where it references the signal flow from the Signal Conditioning and Distribution System (SCDS) through the CU.
12. The NRC staff commented that there did not appear to be any description of how the Process Automation System (PAS) would control the Non-safety-related (NSR) electrical equipment. There should be at least some examples of the methods intended to perform control.
13. Section 7.7.3.5 has no description of Feedwater (FW) flow for the calorimetric. AREVA NP identified that this section was not derived by AREVA NP's Instrumentation and Controls (I&C) design team and, therefore, I&C personnel on the call were uncertain if the section as written should be in the FSAR. AREVA NP took an action to explore its bases and get back to the NRC.
14. In Section 7.7, the NRC staff requested that AREVA NP clarify which signals actuated the Priority and Actuator Control System (PACS) modules functions.

Discussion of the agenda information concluded at about 2:20 p.m. The NRC staff asked AREVA NP if they would be willing to entertain a few questions on the recently delivered Protection System Technical Report. AREVA NP agreed but, after brief discussion, ascertained that the material to be covered would be proprietary. As all business intended for this teleconference had been covered, the member of the public was given a change to address questions to the staff. Having none, the public call was then terminated and the proprietary discussion then continued via a separate call-in number.

The staff posed two questions to AREVA:

1. Regarding Figure 6-13, the NRC staff was concerned with the presentation of a two-way communication pathway identified between the Actuation Logic Units (ALUs) on this drawing and the isolation provided by the various access control key switches. The horizontal divisional separation line and the location of those associated ALUs were also unclear and require additional identification.
2. The NRC staff had previously relied on the table from the previous topical report regarding failure modes and mitigation strategies and requests this level of information be included in the new PS technical report.

FOLLOW-UP ITEMS

AREVA NP

1. Section 7.5 should cross reference where address rate/trend aspects PICS/SIC and the revised QDS are addressed
2. Correct broken cross reference to Section 10.4.9
3. Section 7.5.2.2.1 and Table 7.5-1: Remove "initial" from title (list was intended to be bounding?)
4. Correct omission of "Revision 4" from references to RG 1.97 (pg 7.5-6).
5. Cross reference revised S/U information in Section 7.1
6. Correct typo on Page 7.7-2. Reference to 3.9.9. Should this be 3.9.4?
7. Page 7.7-12 calorimetric instrumentation doesn't appear to be correctly cross-referenced and needs to be researched
8. Section 7.7.2.1.2, Statement, "Signal Flow from SCDS through CU is provided as an example..." "An example" should be removed from this sentence.
9. Protection System Topical Report, Figure 6-13 AREVA NP will have an internal discussion on how best to carry over PS access control description into Section 7.1.
10. AREVA NP Will evaluate incorporation of the table from the previous topical report regarding failure modes and mitigation strategies into the new PS technical report.

NRC Staff

1. Evaluate PAM ITAAC based on discussions and respond on 03/24/11 public call
2. Consider containment hydrogen monitoring with respect to the two regulatory requirements and respond on 3/24/2011 public call
3. Look into the description of NSR control methods relative to control described for Chapter 8 on electrical systems to determine if the treatment is consistent and appropriate, and will address in a later discussion
4. Respond to the substance of RAI 7.1-28 on the Monday 3/21/2011 call.

The meeting was officially closed at approximately 2:40 p.m.

Questions regarding this meeting can be directed to Michael Canova, at 301-415-0737 or michael.canova@nrc.gov

Sincerely,

/RA/

Michael A. Canova
U.S. EPR Projects Branch
Division of New Reactor Licensing
Office of New Reactors

Docket No.: 52-020

Enclosure: List of Attendees

The meeting was officially closed at approximately 2:40 p.m.

Questions regarding this meeting can be directed to Michael Canova, at 301-415-0737 or michael.canova@nrc.gov

Sincerely,

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Docket No.: 52-020

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NRO-002

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DATE	05/23/2011	05/26/2011	06/10/2011	06/27/2011

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Meeting with AREVA NP to Discuss DRAFT Documentation
Related to the U.S. EPR FSAR, Sections 7.5 and 7.7
March 17, 2011

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(Revised 04/08/2011)

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