

September 1, 2009

PARTICIPANTS: AREVA NP, INC., NRC STAFF, MEMBERS OF THE PUBLIC

SUBJECT: SUMMARY OF THE JULY 9, 2009, PUBLIC MEETING TO DISCUSS
EPR TOPICAL REPORTS RELATING TO REACTOR SYSTEMS

On July 9, 2009, the U.S. Nuclear Regulatory Commission (NRC) held a public meeting at the AREVA NP, Inc., Twinbrook Office, 1700 Rockville Pike, Rockville, MD, with representatives of the U.S. EPR Design Center Working Group (DCWG). The purpose of the meeting was to clarify positions and perspectives taken by NRC and by AREVA concerning the review of the topical reports ANP-10278P Revision 0 and ANP-10285P Revision 0, and to discuss the path forward for the review of each document. The meeting agenda is provided as Enclosure 1 and attendees are identified in Enclosure 2.

This meeting summary is available through the Agencywide Documents Access and Management System (ADAMS) as a document with Accession Number ML092040158. The presentation materials distributed at the meeting are contained in ADAMS document ML091910388. Documents in ADAMS are available electronically at the NRC's Electronic Reading Room at <http://www.nrc.gov/reading-rm/adams.html>. If you do not have access to ADAMS or have problems accessing the documents located in ADAMS, contact the NRC Public Document Room (PDR) staff at 1-800-397-4209, 301-415-4737, or pdr@nrc.gov.

The meeting was a Category 1 public meeting during which members of the public were invited to provide comment at specific times identified in the agenda. The meeting was split into a part which was open to the public and which lasted from 8:30 A.M. through 10:00 A.M. and a closed part, in which proprietary information was presented by AREVA NP, and discussed with the staff. Both parts contained information regarding topical reports on accident analysis and fuel mechanical design. A summary of the public portion of the meeting is provided in the following sections.

The NRC staff informed AREVA NP of its concerns and positions regarding remaining open issues in the two topical reports, provided the pertaining technical basis for their positions, and discussed potential paths forward.

AREVA NP's stated objective during the meeting was to gain an understanding of the technical basis for NRC positions, particularly with regard to any proposed compensatory measures, and to provide its perspective on the issues discussed. Furthermore, AREVA NP requested that NRC staff provide a complete list of all pertaining open issues associated with each topical report. AREVA NP stated that the information provided would form the basis for an informed decision regarding the path forward for the two topical reports.

Accident Analyses – Large Break Loss of Coolant Accident (LBLOCA) Topical Report

The realistic large break loss of coolant accident topical report (RLBLOCA TR), ANP-10278P, was submitted March 26, 2007, and accepted for review May 9, 2007. The first scheduled draft safety evaluation report (SER) date was December 31, 2007. In July 2008, open issues still

existed after two rounds of requests for additional information (RAI). This led to the two options of either issuing a safety evaluation report (SER) with a statement that certain parts of the methodology were not acceptable and imposing a peak cladding temperature (PCT) penalty of approximately 500°F, or to issue a third round of RAIs. AREVA NP accepted a third round of RAIs after a face-to-face management discussion between AREVA NP and NRC in August 2008. Subsequently, additional rounds of RAIs were issued, the most recent one being a draft for the sixth round of RAIs that was received by AREVA NP in May 2009. At the time of the public meeting, two options remained as a path forward for the review of ANP-10278P. The staff could issue a SER with the stated penalties applied, or AREVA NP could provide more information in an attempt to better define the penalties. NRC staff stated that a final version of the sixth round of draft RAIs would not be finalized and the SER would be issued if AREVA NP decides not to provide additional information on this topical report.

NRC staff provided the technical basis for their concerns regarding the following issues regarding topical report ANP-10278P: (1) deficient fuel pellet thermal conductivity model of RODEX3A, (2) critical flow model deficiency of the S-RELAP5 code, and (3) lower plenum refill and core flow oscillations in S-RELAP5 calculations. In each case, the staff's position is that a respective PCT penalty would be applied if the methods are used without modification. Additional information provided by AREVA NP will presumably not eliminate the penalties. However, additional information may change the magnitude of the penalties since the compensatory measures presented by NRC staff represent conservative, first-order approximations of the appropriate penalties for each remaining issue.

For NRC staff, two options remained as a result of this meeting: (1) issue the SER with the indicated limitations (PCT penalty), or (2) issue the sixth round of RAIs and review additional information. A respective decision was not made by AREVA NP during the course of this meeting. The decision was committed to be made at a future meeting.

Fuel Assembly Mechanical Design

The fuel assembly mechanical design topical report, ANP-10285P, was submitted October 2, 2007, and accepted for review December 7, 2007. The first scheduled SER date was August 21, 2008, after two rounds of RAIs responses had already been delivered by AREVA NP. A fourth round of RAIs has been issued in June, 2009. The planned response to the fourth round of RAIs is August 14, 2009. According to the current schedule and assuming satisfactory RAI responses from AREVA NP, the SER will be issued on October 31, 2009.

NRC staff stated that significant M5 guide tube growth had been observed. The staff is concerned that the newly revised U.S. EPR guide tube growth model has not been validated with sufficient data and that the stress history uncertainty has not been clearly defined. AREVA NP agreed to respond to the new RAIs regarding the stress history uncertainty, the data base size, and growth trend. The latest schedule was established and issued to the applicant in a schedule letter in June, 2009.

NRC staff expressed concern that the COPERNIC code cladding strain model has not been validated against latest cladding strain test data, such as the Halden and Studsvik test data. AREVA NP confirmed receipt of a draft RAI regarding the comparison of code results with new test data and agreed to work on a path forward on this issue. This discussion would form the basis for subsequent meetings.

Summary and Action Items

This public meeting was held in order to provide and clarify the NRC perspective on the remaining issues associated with the review of topical reports ANP-10278P and ANP-10285P. A closed session was held immediately after the public portion of the meeting in order to discuss proprietary content. A future public meeting is planned to determine the path forward on the review of topical reports ANP-10278P and ANP-10285P.

Members of the public were in attendance. No public feedback forms were received. Please direct any inquires concerning this meeting to Jason Carneal at 301-415-3813 or Jason.Carneal@nrc.gov.

Sincerely,

/RA Getachew Tesfaye for/

Jason Carneal, Project Manager
EPR Projects Branch
Division of New Reactor Licensing
Office of New Reactors

Docket No. 52-020

Enclosures:
Meeting Agenda and Attendee List

cc: EPR DCWG Mailing List

Summary and Action Items

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NRO-002

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REVISED AGENDA

EPR DESIGN CENTER WORKING GROUP PUBLIC MEETING

**Wednesday July 9, 2009
8:30 AM – 5:00 PM**

8:30 AM Introduction and Opening Remarks (NRC/AREVA NP)

Accident Analyses

8:45 AM Discussion of Non-Proprietary Issues and
Content: Staff position on Remaining Issues (NRC)

Fuel Mechanical Design

9:15 AM Discussion of Non-Proprietary Issues and
Content: Staff position on Remaining Issues (NRC)

9:45 AM Opportunity for Public Comment* (NRC/AREVA NP)

10:00 AM Adjourn Public Meeting

**Accident Analyses and Fuel Mechanical Design
Closed Meeting – Proprietary Content**

10:00 AM Discussion of Proprietary Issues and Content (NRC/AREVA NP)

5:00 PM Adjourn Closed Session

All times listed are approximate and for planning purposes only, Adjustments may be made during the meeting as necessary.

**The public will be given the opportunity to comment prior to these points in the meeting.*

**Attendance List
AREVA NP, INC. Public Meeting
July 9, 2009**

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(Revised 04/01/2009)

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