

November 16, 2007

APPLICANT: AREVA NP, LTD.

PROJECT: U.S. EVOLUTIONARY POWER REACTOR PRE-APPLICATION REVIEW

SUBJECT: SUMMARY OF OCTOBER 25, 2007, MEETING WITH AREVA NP TO DISCUSS  
EVOLUTIONARY POWER REACTOR ROD EJECTION ACCIDENT  
METHODOLOGY TOPICAL REPORT

On October 25, 2007, a Category 1 public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) staff and representatives of AREVA NP, Inc. (AREVA) at NRC Headquarters, One White Flint North, 11555 Rockville Pike, Rockville, Maryland. The purpose of this meeting was to discuss the methodology for the evolutionary power reactor (EPR) Rod Ejection Accident Topical Report scheduled for submittal to the NRC by December 14, 2007. A list of meeting attendees is included as Enclosure 1. AREVA presented handouts that are shown in Enclosure 2, and can be accessed through NRC's Agencywide Documents Access and Management System (ADAMS) Accession Number ML073030323.

AREVA presented their understanding of the accident analysis requirements, and intends to follow guidance in the Standard Review Plan, Section 4.2, Appendix B (interim criteria for the reactivity insertion accident). Because of their proposed methodology based on 3-D kinetics with thermo-hydraulic and fuel temperature feedback, they will be able to more accurately model a rod ejection event, and gain margin in the analyses as compared with previous methods. This more realistic approach to requirements based on bounding analyses, modeling the event (especially in terms of maximum relative fuel rod power and peak relative pellet power) and the margin that is gained allows for the use of conservative internal requirements. The use of these conservative requirements streamlines future reload analyses, and increases the core design options while still meeting NRC regulations in regards to the reactivity insertion accident analyses.

While the approach being used by AREVA is in theory conservative in regards to the interim criteria, the NRC staff noted the whole methodology is dependent on NRC approving the 3-D kinetics methods, which have not previously been reviewed. Since the rod ejection methodology is completely dependent upon AREVA's new 3-D kinetics model, this will require detailed review.

The NRC staff provided feedback throughout the presentation.

Public attendees were given an opportunity to comment prior to adjournment, but they chose not to comment.

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Questions regarding this meeting can be directed to John Rycyna at 301-415-4122 or [jxr7@nrc.gov](mailto:jxr7@nrc.gov).

***/RA/***

John Rycyna, Project Manager  
EPR Branch  
Division of New Reactor Licensing  
Office of New Reactors

Project No: 733

Enclosures:  
As stated

cc: See next page

Questions regarding this meeting can be directed to John Rycyna at 301-415-4122 or [jxr7@nrc.gov](mailto:jxr7@nrc.gov).

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Enclosures:  
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cc: See next page

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**Public Meeting with AREVA NP, LTD. to  
Discuss EPR Rod Ejection Accident Methodology Topical Report  
October 25, 2007  
Attendance List**

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Tom DeLorey	AREVA
Jeff Tucker	AREVA
Gayle Elliott	AREVA
Jonathan K. Witter	AREVA
Tom Lotz	AREVA
Jerry Holm	AREVA
Dick Deveney	AREVA
Joe Mihalcik	UniStar Nuclear/Constellation
Leslie Collins	Westinghouse
Shanlai Lu	NRC
Tony Nakanishi	NRC
Peter Yarsky	NRC
Harold Scott	NRC
Shih-Liang Wu	NRC
Mike Canova	NRC
Anthony Mandiola	NRC
Chris Van Wert	NRC
Tony Attard	NRC
Charles Harris	NRC
Larry Burkhart	NRC
John Voglewede	NRC
Ralph Landry	NRC
John Rycyna	NRC

ENCLOSURE 2

AREVA Handout - U.S. EPR Rod Ejection Accident  
Methodology Topical Report

(ML073030323)