



September 8, 2006
NRC:06:036

Document Control Desk
ATTN: Mr. David B. Matthews
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Proposed Plan for the Pre-Application Review of the U.S. EPR

- Ref.: 1. Letter, Ronnie L. Gardner (Framatome ANP, Inc.) to Document Control Desk (NRC), "Proposed Plan for Phase 2 of the Pre-Application Review of the U.S. EPR," NRC:06:004, February 3, 2006.
- Ref.: 2. Letter, Joseph F. Williams (NRC) to Ronnie L. Gardner (AREVA NP, Inc.), "Proposed Plan for Phase 2 of the Evolutionary Power Reactor (EPR) Pre-Application Review," NRC-IC: 06:008, April 7, 2006.
- Ref.: 3. Letter, Ronnie L. Gardner (AREVA NP, Inc.) to Document Control Desk (NRC), "Proposed Approach for Resolution of Design Process and verification Issues of the U.S. EPR," NRC:06:023, May 24, 2006.

Dear Mr. Matthews:

In February 2006, Framatome ANP, Inc. (now known as AREVA NP, Inc. (AREVA)) proposed a plan for Phase 2 of the U.S. EPR pre-application review that included a series of meetings and planned submittals in a variety of topic areas (Reference 1). In April 2006, the NRC confirmed its support for the planned scope of activities and requested that AREVA notify the NRC as soon as practical in the event of a need to revise the topics or objectives of those meetings, or the need to propose additional meetings (Reference 2). In Reference 2, the NRC also requested discussion of these review topics and appropriate expectations for review products. In response, this letter provides updated and more detailed information regarding the activities planned for Phase 2. Details of the proposed plan for Phase 2 are discussed below.

Proposed Meetings

The proposed schedule of meetings for the remainder of 2006 is shown in Attachment 1. A proposed schedule of meetings for 2007 is provided in Attachment 2. Additional meetings may be identified as Phase 2 of the pre-application review progresses.

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AREVA NP INC.
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For most pre-application submittals, AREVA requests a pre-submittal meeting (typically about 30-60 days prior to submittal) and a post-submittal meeting (typically about 60 days following submittal). The NRC and AREVA might agree in advance that a meeting is not necessary or that certain meetings may be held on the same day.

Pre-Application Submittals and Associated Review Products

Attachment 3 provides an updated list of the pre-application submittals. It also indicates the scheduled submittal date, the objective of the submittal and the requested NRC review product for each submittal. As noted in Reference 1, these reports are being submitted during the pre-application review based on discussions with the NRC staff which indicated that submittals for early review and issue resolution will enhance the NRC review of the Design Certification Application (DCA). For the topical report submittals, the requested review products are typically a Safety Evaluation Report (SER) documenting approval. The requested NRC review product for several of the submittals (not in the topical report format), is feedback received during pre-submittal and post-submittal meetings and requests for additional information (RAIs) to inform the development of the DCA. In those cases, AREVA intends to consider and address timely RAIs in the DCA, as applicable. The proposed schedule for pre-application submittals discussed in References 1 and 3 are consistent with Attachment 3 of this letter.

AREVA looks forward to continued interactions with the NRC to ensure an efficient and successful pre-application review. Ms. Sandra M. Sloan, Regulatory Affairs Manager for New Plants Deployment, is the point of contact with the NRC for the pre-application review. She may be reached by telephone at 434-832-2369 or by e-mail at sandra.sloan@areva.com.

Sincerely,



Ronnie L. Gardner, Manager
Site Operations and Regulatory Affairs
AREVA NP, Inc.

Attachments

cc: J. F. Williams
Project 733

Attachment 1

Proposed 2006 Meeting Schedule

Note: An asterisk (*) beside the meeting subject indicates that parts of the presentation may include proprietary material.

Meeting Subject(s)	Month	Meeting Objectives
<ul style="list-style-type: none"> • Unique Design Features • Containment Analysis 	October 2006	<ul style="list-style-type: none"> • Discuss design features which are unique to the U.S. EPR or new to the NRC. • Follow-up to containment discussion during July 2005 meeting. Describe the approach and features to mitigate the consequences of LOCA and MSLB, and the analytical approach.
Planning for Design Certification Application	October 2006	Discuss lessons-learned from precedents, the table of contents for U.S. EPR DCD, level of detail in the application, electronic submittal requirements, other process-related requirements.
Quality Assurance Plan Post-Submittal	October 2006	Respond to preliminary questions and clarify information after the NRC staff has had an opportunity to begin review of the Quality Assurance Plan in the context of DCD Sections 17.1, 17.2, and 17.3.
Codes and Methods Applicability Report for the U.S. EPR Post-Submittal*	October 2006	Respond to preliminary questions and clarify information after the NRC staff has had an opportunity to begin review of the topical report.
<ul style="list-style-type: none"> • PRA Analysis Tools • PRA Methods Report Pre-Submittal • PRA Preliminary Results Summary Report Pre-Submittal 	October 2006	Follow-up to PRA discussion at July 2005 meeting. Describe in more detail the codes, databases, and key assumptions for the PRA. Discuss the content and objectives of the planned submittals.

Meeting Subject(s)	Month	Meeting Objectives
CHF Correlation Topical Report Pre-Submittal*	November 2006	Describe the form and content of the topical report, including a summary of the results.
Piping Analysis and Pipe Support Design Guide Report Post-Submittal	November 2006	Respond to preliminary questions and clarify information after the NRC staff has had an opportunity to begin review of the topical report.
<ul style="list-style-type: none">• Equipment Qualification Program Pre-Submittal• Software Program Topical Pre-Submittal	November 2006	Describe the form and content of the program reports and receive NRC staff early feedback.
Human Factors Program Report Pre-Submittal*	December 2006	Describe the form and content of the program report and receive NRC staff early feedback.

Attachment 2

Proposed 2007 Meeting Schedule

Note: An asterisk (*) beside the meeting subject indicates that parts of the presentation may include proprietary material.

Meeting Subject(s)	Month	Meeting Objectives
Severe Accident Topical Report Post-Submittal*	January 2007	Respond to preliminary questions and clarify information after the NRC staff has had an opportunity to begin review of the topical report.
Instrument Setpoint Methodology Topical Report Pre-Submittal	January 2007	Describe the form and content of the topical report and receive NRC staff early feedback.
Detailed Design Description Report of Unique Design Features Post-Submittal	February 2007	Respond to preliminary questions and clarify information after the NRC staff has had an opportunity to begin review of the design report.
AV42 Priority Control Module (PAC System) Topical Report Post-Submittal	February 2007	Respond to preliminary questions and clarify information after the NRC staff has had an opportunity to begin review of the topical report.
<ul style="list-style-type: none"> • Equipment Qualification Program Post-Submittal • Software Program Topical Post-Submittal 	February 2007	Respond to preliminary questions and clarify information after the NRC staff has had an opportunity to begin review of the program reports.
Incore & Nuclear Instrumentation Design Post-Submittal	February 2007	Respond to preliminary questions and clarify information after the NRC staff has had an opportunity to begin review of the design report.
Digital Protection System Design Topical Report Pre-Submittal	February 2007	Describe the form and content of the topical report and receive NRC staff early feedback.
DCD Chapter 12 (Ch. 11 in part) Pre-Submittal	March 2007	Describe the form and content of the submittal and receive NRC staff early feedback.
CHF Correlation Topical Report Post-Submittal*	March 2007	Respond to preliminary questions and clarify information after the NRC staff has had an opportunity to begin review of the topical report.
Human Factors Program Topical Report Post-Submittal*	March 2007	Respond to preliminary questions and clarify information after the NRC staff has had an opportunity to begin review of the program report.

Meeting Subject(s)	Month	Meeting Objectives
<ul style="list-style-type: none"> • PRA Methods Report Post-Submittal • PRA Preliminary Results Summary Report Post-Submittal 	May 2007	Respond to preliminary questions and clarify information after the NRC staff has had an opportunity to begin review of the reports.
Digital Protection System Design Report Post-Submittal	May 2007	Respond to preliminary questions and clarify information after the NRC staff has had an opportunity to begin review of the topical report.
Realistic Large Break Loss of Coolant Accident Topical Report Post-Submittal*	May 2007	Respond to preliminary questions and clarify information after the NRC staff has had an opportunity to begin review of the topical report.
Instrument Setpoint Methodology Topical Report Post-Submittal	May 2007	Respond to preliminary questions and clarify information after the NRC staff has had an opportunity to begin review of the topical report.
Diversity and Defense-in-Depth Topical Report Pre-Submittal	May 2007	Describe the form and content of the submittal and receive NRC staff early feedback.
DCD Chapter 15 Analyses Results Summary Report Post-Submittal	July 2007	Respond to preliminary questions and clarify information after the NRC staff has had an opportunity to begin review of the summary report.
DCD Chapter 12 (Ch. 11 in part) Post-Submittal	August 2007	Respond to preliminary questions and clarify information after the NRC staff has had an opportunity to begin review of the topical report.
Fuel Assembly Mechanical Analysis Topical Report Pre-Submittal	August 2007	Describe the form and content of the submittal and receive NRC staff early feedback.
Diversity and Defense-in-Depth Topical Report Post-Submittal	August 2007	Respond to preliminary questions and clarify information after the NRC staff has had an opportunity to begin review of the topical report.
Fuel Assembly Mechanical Analysis Topical Report Post-Submittal	November 2007	Respond to preliminary questions and clarify information after the NRC staff has had an opportunity to begin review of the topical report.

Attachment 3

Pre-Application Submittals

Submittal	Objective of Submittal	Submittal Date	Requested NRC Review Product
Codes and Methods Applicability Report for the U.S. EPR	Early review and approval of analytical methodologies and early indication of plant response via sample problem results	Submitted August 10, 2006	SER approval
<ul style="list-style-type: none"> • Quality Assurance Plan Topical Report • DCD Sections 17.1, 17.2 and 17.3 	Early review and acceptance of Quality Assurance program	September 2006	SER approval of QA Plan in the context of the DCD
Piping Analysis and Pipe Support Design Guide Topical Report	Early review and approval	September 2006	SER approval
U.S. EPR Severe Accident Evaluation Topical Report	Early review and assessment of basis for severe accident deterministic evaluation and the severe accident part of the technical basis for PRA	October 2006	SER documenting the NRC's assessment of the severe accident technical basis
Detailed Design Description Report of Unique Design Features	Preview of unique design features to prepare NRC staff for the DCD review	December 2006	NRC feedback during pre- and post-submittal meetings and RAIs to inform development of the DCD
CHF Correlation Topical Report	Early review and approval of CHF correlation	December 2006	SER approval
AV42 Priority Control Module (PAC System) Topical Report	Early review and approval	December 2006	SER approval
Software Program Topical Report	Early review and approval; address BTP-14	December 2006	SER approval

Submittal	Objective of Submittal	Submittal Date	Requested NRC Review Product
PRA Methods Report	Early review of the technical basis for PRA	December 2006	NRC feedback during pre- and post-submittal meetings to inform development of the DCD
Equipment Qualification Program Report	Early start on review of material supporting the DCD	December 2006	NRC feedback during pre-and post-submittal meetings and via RAIs to inform development of the DCD
Incore and Nuclear Instrumentation Design Report	Preview of self-powered neutron detectors and Aeroball System to support NRC planning for the DCD review	December 2006	NRC feedback during pre-and post-submittal meetings and via RAIs to inform development of the DCD
Human Factors Program Topical Report	Early review and approval of material supporting the DCD; address NUREG-0711	January 2007	SER approval
PRA Preliminary Results Summary Report	Preview of PRA results for Level 1, at-power, internal events for early start on review	March 2007	NRC feedback during pre-and post-submittal meetings and via RAIs to inform development of the DCD
Digital Protection System Design Topical Report	Early review and approval of material supporting the DCD	March 2007	SER approval
Instrument Setpoint Methodology Topical Report	Early review and approval of material supporting the DCD	March 2007	SER approval
Realistic Large Break Loss of Coolant Accident Topical Report	Early review and approval of RLBLOCA analytical methodology	March 2007	SER approval

Submittal	Objective of Submittal	Submittal Date	Requested NRC Review Product
DCD Chapter 15 Analyses Results Summary Report	Early start on review	June 2007	NRC feedback during post- submittal meeting to inform development of the DCD
DCD Chapter 12 (Ch. 11 in part)	Early start on review	June 2007	RAIs to inform development of the DCD and approval via the SER for the DCD
Instrumentation and Controls Diversity and Defense-In-Depth Topical Report	Early start on review of material supporting the DCD	June 2007	SER approval
Fuel Assembly Mechanical Analysis Topical Report	Early start on review of material supporting the DCD	September 2007	SER approval