



February 3, 2006
NRC:06:004

PROJ 733

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

Proposed Plan for Phase 2 of the Pre-Application Review of the U.S. EPR

Ref.: 1. Letter, Jerry S. Holm (Framatome ANP) to Document Control Desk (NRC),
"Pre-Application Review of the EPR" NRC:05:008, February 8, 2005.

Dear Mr. Matthews:

In February of 2005, Framatome ANP, Inc. (FANP) requested that the NRC begin the pre-application review of the U.S. EPR reactor design (Reference 1). Since then, FANP and the NRC have been actively engaged in the first phase of the U.S. EPR pre-application review in support of preparation of the design certification application. FANP appreciates the support of the NRC staff during Phase 1, especially the valuable feedback received in the series of public meetings.

As agreed during the January 10, 2006 meeting between FANP and the NRC, the first phase of the pre-application review is now complete. Therefore, FANP requests that the second phase of the pre-application review be initiated. As mentioned in Reference 1, FANP's expectation is that the second phase will focus on discussion of licensing issues, review and approval of topical reports, and cost and schedule planning for the design certification review. Details of the proposed plan for Phase 2 are discussed below.

Proposed Meetings

FANP proposes to continue meeting with the NRC to address items identified as a result of discussions in Phase 1, to address issues which arise as a result of FANP preparation of the design certification application, and to support topical report submittals. The proposed schedule of meetings for 2006 is shown in Attachment 1. Additional meetings will be identified as Phase 2 of the pre-application review progresses. A proposed schedule of meetings for 2007 will be provided to the NRC by the end of 2006.

Proposed Submittals and Associated Review Products

Three key topical reports have had schedule and expected review products established in meetings between FANP and the NRC on March 24, 2005 and January 10, 2006. These are listed in the table below, along with the requested review completion date and the expected review product for each.

Topical Report Description	Submittal Date	Requested Review Completion Date	Expected Review Product
U.S. EPR Transient and Accident Analysis Code Applicability Report	August 2006	August 2007	Safety Evaluation Report
U.S. EPR Severe Accident Evaluation Topical Report	October 2006	October 2007	Documentation of the assessment of the severe accident technical basis
CHF Correlation Topical Report	December 2006	December 2007	Safety Evaluation Report

Recent discussions with the NRC staff have indicated that, in addition to three key topical reports previously planned for submittal, other submittals for early review and issue resolution will enhance the NRC review of the design certification application. Based on that feedback, FANP proposes the expanded list of activities and submittals for Phase 2 of the pre-application review shown in Attachment 2.

FANP expects that the review products and review schedules for the additional submittals shown in Attachment 2 will be defined further in discussions with the NRC.

Other Requested Products

FANP requests that, during Phase 2, the NRC provide documentation of the resource requirements and schedule for review of the design certification submittal.

Phase 2 of the pre-application review will culminate with the submittal of the design certification application for the U.S. EPR by the end of 2007.

FANP 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, remains 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@framatome-anp.com.

Sincerely,



Ronnie L. Gardner, Manager
Site Operations and Regulatory Affairs
Framatome ANP, Inc.

Enclosures

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
Use of DAC in U.S. EPR DC Application	February 2006	Describe the proposed areas for DAC, the extent of DAC in those areas, and the proposed schedule for DAC completion.
Overview of U.S. EPR Compliance Evaluation	March 2006	Describe the nature and extent of the regulatory compliance evaluation (to be summarized in Tier 2, Section 1.9 of the DCD). Identify the regulatory documents being used for the evaluation (SECYs, USI/GSI, generic letters, bulletins, TMI action items, etc.). Describe the process employed for the evaluations. Confirm the scope of the evaluation.
I&C (RPS Philosophy and Design Concepts)*	April 2006	Describe the basic design philosophy and concepts for the Reactor Protection System.
<ul style="list-style-type: none"> • Fire Protection and Train Separation Criteria • Electrical System Design 	June 2006	<ul style="list-style-type: none"> • Explain plans for meeting the regulatory requirements in NUREG-0800, Section 9.5.1, supplemented by SECY-90-016. Discuss plans for justifying deviation requests to these requirements using risk-based criteria. • Provide an overview of the electrical system design, focusing on areas that may be different than those previously reviewed by the NRC.

Meeting Subject(s)	Month	Meeting Objectives
Severe Accident Testing Program*	July 2006	Describe the experimental test programs which support the design of the severe accident mitigation features and which support the analytical tools used for the severe accident evaluation. This is a preview of the test program information to be included in the severe accident topical report.
Code Applicability Topical Report Pre-Submittal*	July 2006	Describe the form and content of the topical report, including the evaluation process, the various codes evaluated, and the preliminary results.
Planning for Design Certification Application	August 2006	Discuss lessons-learned from previous design certification applications, the table of contents for U.S. EPR DCD, level of detail in the application, electronic submittal requirements, other process-related requirements, etc.
I&C (Safety System and Operational I&C Architecture)*	August 2006	Describe the basic architecture for the plant-wide operational and safety digital I&C systems.
<ul style="list-style-type: none"> • Unique Design Features* • Containment Analysis* 	September 2006	<ul style="list-style-type: none"> • Discuss design features which are unique to the U.S. EPR and/or new to the NRC. Topics to be identified by FANP in cooperation with 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.
Code Applicability Topical Report Post-Submittal*	September 2006	Respond to preliminary questions and clarify information after the NRC staff has read the topical report.

Meeting Subject(s)	Month	Meeting Objectives
Severe Accident Topical Report Pre-Submittal*	September 2006	Describe the form and content of the topical report, including a summary of the subject areas and the preliminary results.
PRA Analysis Tools	October 2006	Follow-up to PRA discussion at July 2005 meeting. Describe in more detail the codes, databases, and key assumptions for the PRA.
CHF Correlation Topical Report Pre-Submittal*	November 2006	Describe the form and content of the topical report, including a summary of the results.
Severe Accident Topical Report Post-Submittal*	November 2006	Respond to preliminary questions and clarify information after the NRC staff has read the topical report.

In addition, FANP anticipates the following subjects will be addressed in meetings in 2007:

- Fuel design and analysis;
- Critical structural areas for design detail;
- Containment structural analysis;
- Spectrum of soil conditions for design certification;
- Aircraft hazard evaluation; and,
- I&C diversity defense-in-depth.

Attachment 2

Proposed Submittals for Early Review and Issue Resolution

Note: Submittals shown in italics are those for which the schedule and expected review products have already been established in meetings between FANP and the NRC.

Topic	Proposed Submittals	Time Frame	Objective of Early Submittal
Safety Analysis Methods	<i>U.S. EPR Transient and Accident Analysis Code Applicability Topical Report</i>	8/2006	Early review and approval of analytical methodologies
Safety Analysis Results	<i>U.S. EPR Transient and Accident Analysis Code Applicability Topical Report</i> DCD quick look results summary report	8/2006 2Q CY2007	Early indication of plant response via sample problem results Preview of DCD Chapter 15 analysis results for early start on Chapter 15 review
Unique Design Features	Detailed design description report on unique design features	4Q CY2006	Early start on review of unique design features
PRA Methods	PRA methods report	4Q CY2006	Early review and acceptance of the technical basis for PRA
PRA Results	PRA Level 1 at-power, internal events summary report	1Q CY2007	Preview of PRA results for early start on PRA review
Severe Accidents	<i>U.S. EPR Severe Accident Evaluation Topical Report</i>	10/2006	Early review and assessment of basis for severe accident deterministic evaluation and the severe accident part of the technical basis for PRA

Topic	Proposed Submittals	Time Frame	Objective of Early Submittal
Fuel Design	<i>CHF Correlation Topical Report</i>	12/2006	Early review and approval of CHF correlation
	Mechanical analysis topical report	3Q CY2007	Early start on review of fuel mechanical design
Human Factors	Human factors report	1Q CY2007	Early start on human factors review
Quality Assurance	DCD Chapter 17.1, 17.2 and 17.3	3Q CY2006	Early review and acceptance of QA program
I&C	Incore and nuclear instrumentation design report	4Q CY2006	Early start on review
	Digital protection system design report	1Q CY2007	Early start on review
	Instrument setpoint methodology report	1Q CY2007	Early start on review
	I&C diversity and defense-in-depth report	2Q CY2007	Early start on review
	Equipment qualification program report	4Q CY2006	Early start on review
Radiation Protection	DCD Chapter 12	2Q CY2007	Early start on radiation protection review
Piping DAC	DCD Chapter 3.9	3Q CY2006	Early review and acceptance of piping DAC

In addition, early submittals in the following subject areas are proposed for further discussion:

- Containment structural design;
- Design basis threat; and,
- Aircraft hazard.