

**PBMR Pre-Application Review Technical and Programmatic Topics
Presented and Documented by Exelon**

Meeting Date	Topic Number	Meeting Presentation Technical Topic	White Paper Date	Lead Review Organization
Jun 12-13	1	Fuel Overview -Design, Manufacturing, QC and Qualification	11/16/01	DSARE
Jul 17-18	2	Design Codes and Standards	10/30/01	DET
	3	Fuel Irradiation Program	11/16/01	DSARE
Aug 15-16	4	<u>Analytical Codes and Software Control</u> 1. Engineering Analysis 2. Reactor Analysis 3. Radiation Analysis 4. Fuel Performance Analysis 5. Risk and Consequence Analysis	10/30/01	DSARE DSARE&DET DSARE DSARE DSARE DRAA
	5	Fuel Design Logic	11/16/01	DSARE
	6	Core Design	11/16/01	DSARE
Sept 18		None	N/A	N/A
Oct 25	7	High Temperature Materials Graphite	10/23/01	DET*
	8	Control of Chemical Attack	10/23/01	DET* DSARE
	9	PBMR Systems Design Approach and Status	N/A	N/A
	10	High Temperature Materials	TBD	DET*
Nov 29-30	11	PBMR Operational Modes and States	11/28/01	DSARE
	12	Testing Requirements for a Combined License	11/28/01	NRR
	13	Materials and design codes for RPV and connecting pipes	12/17/01	DET

* review support available from ORNL
N/A Not Applicable

6/11

**Exelon Objectives for NRC's Pre-application Review
by Presentation Topic**

Topic No	Exelon's Documented or Stated Objectives for NRC Pre-application Review
1	NRC to identify potential opportunities for NRC involvement in fuel qualification process.
2	NRC to provide comments/feedback/issues/questions on the reference design codes and standards to be used in the PBMR design. [Also: NRC requested to review and approve ASME Code Cases N-499 and N-201.]
3	NRC to provide comments/feedback/issues/questions on the proposed fuel testing program and the general approach to be used in analyzing the acceptability of the fuel design.
4	NRC to identify specific list of codes and models that are needed from PBMR to become familiar with and be ready for an application.
5	NRC to provide comments/feedback/issues/questions on the proposed PBMR fuel testing program and the methodology to be used in analyzing the design. [Exelon would like to use the next 18 months (i.e., by November 2002) to reach agreement with the NRC on the adequacy of the testing and methodology to be used prior to a license application. Exelon would like feedback from the NRC on the process for reaching agreement on the fuel testing and methodology.]
6	Exelon would like to obtain NRC agreement on sufficient design information and analytical methodologies to support a US license application.
7	No specific NRC action is requested by Exelon. The purpose of the presentation was to highlight the safety issues related to the use of graphite technology in HTGRs and to identify options that can lead to the successful resolution of these issues
8	NRC to provide comments/feedback/issues/questions on the approach to the control of chemical attack in a PBMR
9	No specific NRC action is requested by Exelon. (Information presentation)
10	NRC to provide comments/feedback on the use of high temperature materials in a PBMR. [Also the planned use of ASME Code Case N-201 for the core barrel is noted.]
11	No specific NRC action is requested by Exelon. (Information presentation)
12	Exelon would like NRC agreement on a decision process and issue- specific testing expectations for a COL.
13	Document was provided in response to NRC RAI.