



PBMR Design Certification Pre-Application Planning

**September 21-22, 2005
Rockville, MD**



Agenda – Day 1

<u>Time</u>	<u>Topic</u>	<u>Lead by</u>
9:00 am	Opening Remarks	NRC/PBMR (Pty) Ltd.
9:15 am	LBE Selection	Dr. F. Silady
10:30 am	Break	
10:40 am	SSC Classification	Dr. F. Silady
11:50 am	Physical Security Implications	E. Burns
12:20 am	Lunch	
1:20 pm	Codes and Standards, Materials	W. Kriel
2:45 pm	Break	
3:00 pm	Codes and Standards, Materials (Cont'd)	W.Kriel
4:30 pm	Opportunity for Public Comment	All
4:45 pm	1 st Day Wrap-up and Summary	NRC/PBMR (Pty) Ltd.
5:00 pm	Adjourn	



Agenda – Day 2

<u>Time</u>	<u>Topic</u>	<u>Lead by</u>
8:30 am	Fuel Design and Qualification	S. Ritterbusch
10:15 am	Break	
10:30 am	Computer Code V&V	Dr. C. Kling
12:30 am	Lunch	
1:15 pm	Single v. Multi-Module Certification	E. Burns
2:15 pm	Break	
2:30 pm	Discussion, Conclusions and Next Steps	NRC/PBMR (Pty) Ltd.
3:30 pm	Opportunity for Public Comment	All
4:00 pm	Adjourn	



Meeting Objectives

- **Provide additional background on details of PBMR design and safety case**
- **Discuss in greater detail the issues and pre-application outcome objectives for each focus topic**
- **Identify additional NRC issues that need to be addressed during the pre-application period**
- **Agree on a list of work items that are needed to achieve the outcome objectives for each focus topic during the Phase 2 period**
- **Agree on the Project Management tasks to complete the plan**

- **Restatement of the pre-application issues and outcome objectives (from 1st planning meeting)**
- **Extended discussion of issues**
- **Confirmation of schedule and approach for addressing relevant Exelon RAIs**
 - Recapture significant NRC staff work expended during Exelon pre-application review
- **Identification of proposed work steps for Phase 2**
 - Work list to be used in establishing agreed-upon deliverables, schedules, and review products for phase 2 activities



Exelon RAIs – Resolution Approach

- **PBMR's approach:**
 - Review each RAI for technical understanding and continued relevance to the current design.
 - Reconfirm the timing for resolution (proposed by the NRC in its RAI numbering approach).
 - *Appropriate for discussion during pre-application (Category 1), or*
 - *Sufficiently understood such that the RAI can be properly addressed within the DCA itself (Category 2/2*).*
 - Establish agreed-upon work deliverables for RAIs deemed appropriate for discussion during pre-application Phase 2.
- **NRC action:**
 - Reconfirm the validity of each Category 2* RAI to ensure readiness for receipt of the DCA.
 - *Identify RAIs that may benefit from pre-application discussions.*

Acronyms Used in Presentations

ANL	Argonne National Laboratory	DCD	Design Control Document
AOO	Anticipated Operational Occurrence	DLOFC	Depressurized Loss of Forced Cooling
BDBE	Beyond Design Basis Event	DSRS	Dry Gas Seal Supply and Recovery System
CBCS	Core Barrel Conditioning System	EAB	Exclusion Area Boundary
CCS	Core Conditioning System	EMDAP	Evaluation Model Development and Assessment Process
CFRC	Carbon Fiber Reinforced Composite	EPBE	Emergency Planning Basis Event
COL	Combined Construction Operating License	FHSS	Fuel Handling and Storage System
COTS	Commercial-Off-The-Shelf	FIMA	Fissile Initial Metal Atom
CSC	Core Structure Ceramics	HICS	Helium Inventory Control System
CUD	Core Unloading Device	HMS	Helium Make-up System
DBE	Design Basis Event	HPB	Helium Pressure Boundary
DCA	Design Certification Application	HPS	Helium Purification System



Acronyms Used in Presentations

HTGR	High Temperature Gas Reactor	PLOFC	Pressurized Loss of Forced Cooling
HX	Heat Exchanger	RCCS	Reactor Cavity Cooling System
ICS	Inventory Control System	RCS	Reactivity Control System
INL	Idaho National Laboratory	RPS	Reactor Protection System
ITAAC	Inspections, Tests, Analyses, and Acceptance Criteria	RPV	Reactor Pressure Vessel
LBE	Licensing Basis Event	RSS	Reserve Shutdown System
MDSS	Manual Diverse Shutdown System	SAS	Small Absorber Spheres
MPU	Main Power Unit	SSC	Structure, System, Component
PAG	Protective Action Guideline	SUD	Software Under Development
PB	Pressure Boundary	SVVP	Software Verification & Validation Plan
PCU	Power Conversion Unit	TLRC	Top-Level Regulatory Criteria
PIRT	Phenomena Identification and Ranking Tables		