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*United States
Nuclear Regulatory Commission*

FF/14

Proposed
PBMR Preapplication Review Plan
(Project 713)

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Topics for Discussion

- Overall goals of preapplication review
- Scope of review
- Office responsibilities and contacts
- Proposed review plan and schedule

Overall Goals

- To assess the key technology, design, safety, licensing and policy issues that would need to be addressed and resolved in support of a licensing application for a PBMR.
- To develop a core infrastructure of analytical tools, contractor support, staff training and NRC staff expertise needed for NRC to fully achieve the capacity and the capability to review a modular HTGR license application.

Review Scope

- HTGR Technology Assessment:
 - technical and safety issues
 - research needs

- PBMR Regulatory Framework:
 - process issues
 - applicable requirements
 - policy issues

Office Responsibilities and Points of Contact

- RES (Stu Rubin):
 - overall project management
 - lead for technical issues
 - coordination with other offices

- NRR (Amy Cabbage and Diane Jackson):
 - lead for process issues

- NMSS (Vanice Perin):
 - lead for fuel cycle, transportation, waste and safeguards issues

- OGC (Cathy Marco):
 - lead for legal issues

Proposed Plan for Review

- Review process:
 - meetings on selected topics
 - Exelon/DOE followup submittal documenting topic and requested feedback
 - NRC response drafted
 - discussion with ACRS/ACNW
 - NRC response to Exelon/DOE

- Five topical meetings:
 - licensing process (4/30/01)
 - fuel performance and qualification
 - design
 - fuel cycle
 - PRA, safety classification, regulatory framework

Proposed Plan for Review (cont.)

- Overall - estimate 18 months to completion
- End Products – letters to Exelon/DOE
 - Commission guidance on policy issues

Proposed Schedule

- Topics:

Proposed Schedule for Meetings

- licensing process/legal issues 4/30/01
- fuel: 6/01
 - design and fabrication
 - testing and qualification
 - ensuring quality over the life of the plant
- design: 8/01
 - codes and standards
 - high temperature design and materials
 - accident analysis (DBAs)
 - computer codes and their validation
 - prototype testing

Proposed Schedule (cont.)

Proposed Schedule for Meetings

- fuel cycle: 10/01
 - fuel storage
 - transportation
 - safeguards

- framework 12/01
 - PRA
 - safety classification
 - applicable requirements

- ACRS/ACNW interactions on technical issues

- Stakeholder feedback