

From John Ridgely

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Advance Reactor Strategy/Planning Meeting  
April 9-10, 2002  
Notes

PRA (Y6619):

- A high level discussion needs to be added to section 1 that addresses the licensing process and sets the stage for the details in the following sections.
- Section 1 needs to be expanded to discuss all of the NRC cornerstones.
- The plan needs to address the time from receipt of fuel to shipping of spent fuel.
- The plan needs to identify the PRAs that need to be developed and when they need to be available.
- Section 3 needs to be before section 2.
- Sections 3.3 and 3.4 need to be combined and identified as "supporting the licensing process."
- A product of this work would be a document to describe "how to use" the technical information, e.g., importance measures and how do you manipulate the results to gain insights.
- The other product would describe (1) what should be submitted in a PRA and (2) how it should be reviewed.
- A separate section should be added to the plan to discuss interfaces between disciplines, ACRS, and with stakeholders, including milestones/schedule.
- A separate section should be added to the plan to discuss the technical (potential policy?) issues.
- Discuss applicability of existing tools (i.e., do the existing models apply to the new reactor designs?)
- The PRA will be used as:
  - ❖ audit tool for submitted PRA (what should be submitted and how to be reviewed),
  - ❖ help in developing decision-making criteria,
  - ❖ help in identifying risk-informed regulations, regulatory guides, etc.,
  - ❖ help in identifying and prioritizing research needs, and
  - ❖ development of appropriate risk metrics.

Decision-Making Criteria (Y6487):

- The "format" type of comments from the PRA section (above) is also applicable to the decision-making criteria (DMC) plan.
- The DMC is to start with the "Option 3" framework.
- The DMC should talk about the hierarchical structure.
- The DMC should provide the basis from which to risk-inform Part 50 over time.
- The DMC is not to treat radiation protection, safeguard, or security aspects.
- The DMC is to include the *technical* work to support potential changes to the regulations (e.g., General Design Criteria), Regulatory Guides, and Standard Review Plan section(s); which can include draft language.
- A discussion on accident management is to be included in the DMC.
- The plan is to identify issues and how we will address the issues.
- Potential Policy issues identified were:
  - ▶ Should DMC be applicable to existing plants?
  - ▶ Should land contamination be included as a risk metric?
  - ▶ Should the "level of safety" be raised simply because the new plants will be safer?
  - ▶ Should this work include security and safeguard aspects?
  - ▶ Should the DMC apply to the single reactor (module), the reactor (all modules with a common control room), or the site (and if site, how do you treat the existing reactors on

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- that site?)?
  - Should "cost-benefit" be applied to advanced reactors?
    - Should we address radiation protection of the public versus the workers? (Probably not to the workers.)
    - Should the DMC address siting criteria? (Is the treatment by module or the total planned number of modules? Do you treat the site separately for the advanced reactors from the existing reactors? Given that you treated each reactor independently, how do you integrate the existing with the new without backfitting the existing reactors? What would you do with a LWR and PBMR on a site and later want to add a GT-MHR?)
- The path to resolution of these other issues (listed below) needs to be addressed in the DMC plan.
  - Defense-in-Depth
    - Source Term
    - Accident selection
    - External events
    - Emergency Planning and the EP Zone
    - Environmental protection (risk metrics)
    - Accident management
    - Late containment failures
    - Performance based
    - Regulatory requirements and guidelines
    - Spent fuel handling, storage, cooling

Milestones/Schedule:

<u>Event</u>	<u>Date and Time</u>	<u>Tentative Location</u>
Status Meeting	May 8, 2002 (8:00-3PM)	T10C2
Review Draft Documents	June 6, 2002 (9:30-4PM)	T10C2
Final Draft Documents Received	July 26, 2002	not applicable
First Draft Finalized (DRAA)	July 29, 2002	not applicable
Revised Documents Received	August 8, 2002	not applicable
Documents given to RES	August 12, 2002	not applicable
Good Working Plan Received	September 5, 2002	not applicable
Final Draft of Plan	September 9, 2002	not applicable
Meeting with NRR to Discuss Plan	September 19, 2002	T10A1 <sup>1</sup>
Public Workshop <sup>1</sup>	October ??, 2002	Auditorium <sup>1</sup>
ACRS Presentation	October ??, 2002	ACRS Meeting Room

<sup>1</sup> Tentative