

From: Claudia Seelig - NMSS
To: Constance Schum - EDO
Date: 3/23/01 12:53PM
Subject: Fwd: REVISED PEBBLE BED

Please read last paragraph of attached to see what my voice mail was referring to. Our resource estimates are still rough so please don't forward those to anyone. I just wanted your thoughts on us presenting the information in one place in our submission rather than 3 or 4 different programs under 2 arenas. Given the high uncertainty, I don't think it makes sense to sprinkle it everywhere in the NMSS submission even though that is what we would really have to do if we wanted to fully comply with the budget structure.

CC: Aby Mohseni; E. Jacobs-Baynard; John Linehan] NMSS

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NMSS
From: Claudia Seelig
To: Aby Mohseni; E. William Brach; John Greeves; John Linehan; Josephine Piccone; *NMSS*
Margaret Federline; Martin Virgilio; Michael Weber
Date: 3/23/01 12:48PM
Subject: REVISED PEBBLE BED *OSTP*

The attached information has been revised based on today's ET/LT meeting. Changes are shown in redline/strikeout so please print via WP to view properly.

If you have any changes to attached based on what you thought you heard this a.m., please provide them to Seelig by COB today.

I'm still waiting for Connie Schum to confirm that it is OK for NMSS to place this new work effort in NMSS' budget submission (5A, Blue Book, CARDS resource document, etc.) in one new planned accomplishment entitled "Fuel and Transportation Activities for Future Reactor" in the Materials Arena Fuel Cycle Program rather than show each separate component under the Waste Arena Environmental Program and the Spent Fuel/Transportation Program; and the Materials Arena Fuel Cycle Program.

CC: E. Jacobs-Baynard; Elizabeth Suarez; George Deegan; Karen Long; Richard Turtill — *NMSS*

Pebble Bed Modular Reactor Planning Wedge Revised 3/23/01

	<u>FY 2002</u>		<u>FY 2003</u>		<u>FY 2004</u>	
	<u>\$K</u>	<u>FTE</u>	<u>\$K</u>	<u>FTE</u>	<u>\$K</u>	<u>FTE</u>
FCSS	0	0.8	200	8	200	8
SFPO	200	0.4	200	1	300	2
DWM	0	0.2	500	1	500	1
IMNS	0	0	100	2	100	2
Total	200	1	900	10.4	700	9.4
			800		1100	

Note: resources were adjusted to maintain each Division at an integer in FY 2003-2004.

New Nuclear Materials Safety Arena Budget Assumption:

Pre-application review activity for the fuel fabrication and transportation aspects of the Pebble-Bed Modular Reactor (PBMR) is expected to continue and conclude late in FY 2002. An application for a new fuel fabrication facility which would be needed to provide the required fuel for the PBMR will be received in FY 2003. A Part 71 nonspent fuel transportation application to transport unirradiated fuel to the facility will be received in FY 2003. No rulemaking changes will be required. Storage of spent fuel at the facility will be done as part of the Part 50 application.

Basis: Exelon requested the NRC to perform a pre-application review of the PBMR design by letter dated 12/5/00. The initial meeting with Exelon occurred on 1/31/01, and the NRC staff expects the review to last ~ 18 months. The COL assumption is based on statements made by Exelon representatives at the 1/31/01 meeting. Also, references include (1) Commissioner Merrifield's 10/31/00 memo, "Staff Readiness for New Nuclear Plant Construction and Pebble Bed Reactor" and (2) the EDO's 11/14/00 memo re "Advanced Reactors". Based on letters and statements made by Exelon.

Uncertainty: Low - for Pre-application. High - for fuel fabrication facility and transportation application that are related to the PBMR COL. Based on assessment of past experiences with these sorts of advanced reactor activities.

~~FCSS: FY02 resources needed for pre-application review; FY03-04 resources needed for review a an application for a new fuel fabrication facility which would be needed to provide the required fuel for the PBMR. \$200K and 8 FTE would also be needed for FY 2005;~~

~~SFPO: FY02 resources needed for review of a Part 71 nonspent fuel transportation application; FY04 resources needed for the review of a Part 71 spent fuel transportation application and a Part 72 storage application;~~

~~DWM: Resources needed to provide for an EIS;~~

~~IMNS: Resources needed to develop any new regulations which could involve several parts of the regulations, coordination with NRR, and significant stakeholder interactions;~~

NRR Assumption (2/22/01):

- 2c. Pre-application review activity for the Pebble-Bed Modular Reactor (PBMR) is expected to continue and conclude late in FY 2002. An application for a COL for a PBMR is possible in late FY 2002.

Basis: Exelon requested the NRC to perform a pre-application review of the PBMR design by letter dated 12/5/00. The initial meeting with Exelon occurred on 1/31/01, and the NRC staff expects the review to last ~ 18 months. The COL assumption is based on statements made by Exelon representatives at the 1/31/01 meeting. Also, references include (1) Commissioner Merrifield's 10/31/00 memo, "Staff Readiness for New Nuclear Plant Construction and Pebble Bed Reactor" and (2) the EDO's 11/14/00 memo re "Advanced Reactors". Based on letters and statements made by Exelon.

Uncertainty: Low - for Pre-application. High - for COL. Based on assessment of past experiences with these sorts of advanced reactor activities.