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Resources

"The activities, schedule, and resource needs are based upon the staff's previous experience with a pre-application review of a DOE-sponsored modular HTGR conducted in the late 1980s. The technology assessment, regulatory framework and regulatory process assessment activities described in the attached plan would build upon that work and other previous advanced reactor work. ~~Currently, these resources are not in the FY 2001 or the FY 2002 budget, nor are resources to conduct an actual licensing review of the PBMR, if and when such a review is requested.~~ Resources to conduct an actual licensing review of the PBMR will be prioritized in the FY 2003 budget during the PBPM process.

The U.S. Department of Energy (DOE) also considers an NRC safety and technology assessment of modular HTGRs, like the PBMR, as providing fundamental input for evaluating their advanced reactor program. Accordingly, DOE has recently inquired into the feasibility of NRC conducting such an assessment and has indicated that they would be willing to fund (FTE and contractor support) a portion of the work. DOE funding would support technology assessment and transfer activities that are generically applicable to modular HTGRs, including the PBMR. It is expected that most of the work for DOE would benefit the staff by developing the understanding, expertise and capabilities it would need to conduct future licensing reviews of modular HTGRs, including the PBMR. However, the DOE funding scope would not include safety and technology assessment work that is applicable only to the PBMR.

18 Month Time Period Beginning late April 2001

	Reimbursable	Non-Reimbursable	Total
Contract Support (RES)	\$800K	\$200	\$1 Million
FTE (RES 4, NRR 2, NMSS 1)	3 FTE	4 FTE	7 FTE

It is estimated that 7 FTE and approximately \$1 million in contractor support (RES) would be required to perform the pre-application activities over an 18 month time period, as described in Attachment 2. This includes four FTE in RES, two FTE in NRR, and one FTE in NMSS.

The \$1 million in contract support (reimbursable and non-reimbursable) will cover RES PBMR activities over the 18 month time period. No contract support costs have been identified in NRR and NMSS for the safety and technology assessment and pre-application activities. ~~Once the work effort is underway, staff in NRR, NMSS, and RES will be able to determine the FTE applicable to their office activities and whether the associated work is fee recoverable or reimbursable through the DOE agreement.~~

It is estimated that the activities in support of the safety and technology assessment and pre-application activities will require 2 FTE and \$300K in FY 2001 and 5 FTE and \$700K in FY 2002 for NRC. It is estimated that the total technology assessment and transfer activities to be funded by DOE would comprise approximately \$800K for contractor support and 3 FTE of the total estimated cost. DOE funding would begin in FY 2001, (through a reimbursable agreement between DOE and NRC) if the Commission approves proceeding with this work. DOE has indicated that they would make \$500K available in FY 2001 (\$300K for contractor support and \$200K for 1 FTE) to initiate the work. The 1 FTE in FY 2001, not covered by the DOE reimbursable agreement will be funded from within RES, NRR, and NMSS.

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Although this FTE is not currently in the FY 2001 budget, it will be reprogrammed from lower priority activities. DOE will provide the remainder of the funding in FY 2002, subject to the availability of funds (\$500K for contractor support and \$400K for 2 FTE). The non-DOE funded work in FY 2002 totals \$200K and 3 FTE and will be requested during the FY 2003 PBPM process from RES, NRR, and NMSS.

Exelon would be charged a fee fees in accordance with 10 CFR Part 170.21 for NRC resources (FTE and contractor support) expended for assessment activities that are specific to the PBMR design and for all of the staff's PBMR regulatory framework and regulatory process assessment activities. Additionally, an actual license application for a modular HTGR such as the PBMR would be conducted on a fee recoverable basis in accordance with 10 CFR Part 170.21. X

Other Comments

- Suggest revising the first major bullet under "Technology Assessment and Transfer" on page 4 to read as follows:

- familiarization with the design, safety, and research issues via:
 - interaction with foreign partners and domestic organizations, including Exelon, with HTGR or modular HTGR design, safety or operating experience
 - interaction with the RSA regulatory organization"

The purpose of this change is to downplay the focus on interactions with Exelon for work activities which would be reimbursed by DOE.

- Suggest revising the last two sentences of Page 11 of Attachment 2 as follows:

"DOE funds to cover the technology assessment and transfer activities are estimated to amount to \$800K and 3 FTE over the 18-month period. NRC appropriated funds, subject to fee recovery under 10 CFR 170.21, would cover regulatory process and framework assessment and PBMR-specific technology assessment activities and would amount to an estimated \$200K and 4 FTE over the 18-month period."