

From: *NRR* Charles Ader *RES* *RES* *NRR* *RES* *RES* *NRR* *(NRR)*
To: Amy Cabbage; Ashok Thadani; Farouk Eltawila; Jack Strosnider; James Lyons; John
BES **Flack;** Michael Mayfield; Scott Newberry; ~~Stuart Rubin~~ *RES*
Date: *BES* Thursday, October 17, 2002 11:16AM *RES*
Subject: C-Note for PBMR Drop in

FYI - Attached is the note that was sent to John Craig on the drop in visit by David Nicholls, PBMR Co and Regis Matzie, Westinghouse regarding current plans for the PBMR in South Africa and possible further interactions with the NRC.

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C-Note

On October 10, 2002, David Nicholls, CEO, PBMR Co., Republic of South Africa (RSA), Regis Matzie, Senior Vice President and Chief Technology Officer, Westinghouse Electric (and a member of the Board of Directors, PBMR Co.) and Marilyn Kray, Vice President, Special Projects, Exelon Generation Company (and a member of the Board of Directors, PBMR Co.) conducted a drop-in visit with management and staff from RES and NRR. Also participating in the meeting were Rod Kritch, Vice President, Licensing, Exelon Generation Company and Charles Brinkman, Westinghouse. The purpose of the October visit was for PBMR Co. to discuss (1) their thinking on future NRC interactions related to PBMR design certification and the possible resumption of PBMR pre-application activities and, (2) the status of the PBMR project in the RSA, including pending decisions on the construction of a demonstration PBMR plant South Africa. Mr. Nicholls indicated that Westinghouse will be an advisor to PBMR on future licensing-related interactions with the NRC because of their significant experience. Mr. Nicholls indicated that PBMR had also recently met with DOE and NEI as part of series of meetings in the US to familiarize key US organizations with on going progress and future plans for the PBMR project.

Mr. Nicholls indicated that the "business case" for the PBMR had been completed in September 2002 and provided a favorable basis to move forward with the project. He also stated that the technical feasibility study and the "final design" for the PBMR had been completed and that the next phase would be to move forward with procurement of the equipment and services needed to build a PBMR demonstration plant in South Africa. The PBMR partner's decision on the construction of a demonstration plant was expected within the first quarter of CY 2003. Mr. Nicholls indicated that the PBMR Safety Analysis Report had been submitted to the RSA National Nuclear Regulator (NRR) in 2002. The scope of the submittals to NRR and the key licensing issues had been defined including consideration of the key issues raised by the NRC staff in connection with the recently concluded PBMR pre-application review. Mr. Nicholls indicated that the site preparation license was expected by the end of March 2003.

The recent design changes included a core power up-rate to 400 MWth (165 Mwe); utilization of a fixed central graphite reflector instead of moving graphite balls in the central region; an 8 module clustered plant design instead of a 10 module linear layout; and the generator external to the primary system. The reactor buildings for each module would also be specifically designed for a larger aircraft impact including the effects of jet fuel ignition and the placement of the shared helium coolant tanks at a very low elevation in the reactor building.

Mr. Nicholls suggested three areas for possible PBMR interaction and cooperation with NRC. The first was to follow through on the previously proposed (but later withdrawn when Exelon decided to withdraw as a PBMR partner) DOE/NRC cooperative fuel testing program. The second was to interact with NRC on the staff's review and endorsement of Code cases N-201 and N-499 for the qualification of metals at high temperatures. The third area was (as part of a PBMR pre-application review) to interact with the NRC on the development of the testing program for the PBMR prototype plant in South Africa.

Mr. Nicholls indicated that PBMR would formally contact NRC on these suggested areas of interaction immediately following a decision by PBMR to build a prototype plant. That decision was expected in the first quarter of CY 2003. Assuming a favorable decision pre-application interactions would resume in the first quarter of 2004 and design certification application would be submitted in CY 2006.