

DE/APP-B/#4

From: David Terao *NRR*
To: Amy Cabbage
Date: 9/12/02 8:41AM
Subject: Re: PBMR Requests for N-499 and N-201

First of all, a lot has transpired since that email. For background, these Code cases deal with design of reactor internals and vessel materials under elevated temperature conditions. The NRC is not including these Code cases in the next update to RGs 1.84 and 1.85 which should be issued before the end of this calendar year.

Although EMCB is not reviewing these Code cases at this time, RES has initiated a contract with Argonne National Laboratory to review the technical adequacy of the Code cases. Charles Greene in RES is the point of contact. The contract was initiated in May 2002, but the kick-off meeting was held in August 2002. I requested that RES notify NRR of future status review meetings with ANL on this contract so that we (both EMEB and EMCB) can keep abreast of the ANL review.

>>> Amy Cabbage 09/06/02 04:29PM >>>
David,

NRR

See your e-mail below from Nov 2001. I just got a call from Westinghouse (BNFL is a partner in the PBMR co. in South Africa who is developing the PBMR design). Westinghouse wants to know the status of any formal request to approve ASME Code cases N-499-1 and N-201-4.

Is your statement in bold at the end of you e-mail still valid? Is this position supported by DE management?

If so, I will relay this position to Westinghouse. FYI - Westinghouse already called Joe Muscara and according to Westinghouse got the same response as below.

Amy

>>> David Terao 07/18/01 01:19PM >>>
Amy,

NRR

At this morning's meeting on PBMR codes and standards, Exelon requested NRC staff review and approval of ASME Code cases N-499-1 and N-201-4. These Code cases were issued by the ASME in 1994 to address the design of materials at elevated temperatures. Exelon is proposing to use these Code cases for the design of its PBMR reactor pressure vessel and internal core support structures. Exelon requested that the NRC staff endorse these Code cases generically in the next revision to RG 1.84 or 1.85.

I have discussed the possibility of the staff reviewing these Code cases with the Materials and Chemical Engineering Branch (EMCB) who would have the lead responsibility for the technical review of these Code cases as well as with Wally Norris from RES who has the lead responsibility for issuing updates to RGs 1.84 and 1.85. At this time the staff is excluding these two Code cases from consideration in the next update to the RGs. The reason for their exclusion is that there are no nuclear power plants in the U.S. that are proposing to use these Code cases (other than PBMR), and their review would be extremely difficult technically as well as time consuming. It would be inappropriate to delay issuance of the next RG revisions until the staff completes its review of these two Code cases. It should be noted that these two Code cases were probably developed for the DOE-proposed liquid-metal fast-breeder reactor (LMFBR) in the early 1990s that never came to fruition. It would take specialists in high-temperature materials area to review these two Code cases. It is uncertain whether the staff is technically capable to undertake such a review at this time. We plan to address this issue further in the FLIRA critical skills survey.

Consequently, it appears that the staff may not be able to accomodate Exelon's request to endorse Code cases N-201 and N-499 in the next update to RGs 1.84 and 1.85. **I suggest that the staff review these**

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two Code cases as a part of the PBMR application when it is submitted to the NRC. I see no reason to undertake such a review on a generic basis at this time.

CC: Bill Bateman; Edmund Sullivan; Gene Imbro; Goutam Bagchi; James Lyons; Thomas Scarbrough