



ENTERGY

Entergy Operations, Inc.

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Project 692

February 9, 1996

Mr. William T. Russell
Director of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Waterford 3 SES
Docket No. 50-382
License No. NPF-38
Review of Revised ABB/CE SBLOCA Evaluation Model for
ECCS Performance

Dear Mr. Russell:

Entergy has communicated to the NRC the importance of the review of the ABB/CE Small Break LOCA Realistic Evaluation Model (REM). The December 13, 1995 letter from Roy P. Zimmerman (NRC) to Harold W. Kaiser (Entergy) identifies alternative approaches to the technical review of the REM. This letter responds to the December 13, 1995 letter with an approach that benefits Entergy, ABB/CE, and the NRC. Entergy requests that the NRC begin review of a proposed revision to the ABB/CE ECCS Appendix K Evaluation Model for SBLOCA that is based on a distinct part of the REM. The new model is required to support a power uprate project for Waterford 3.

Entergy and ABB/CE met with the NRC on January 23, 1996 to discuss alternatives for successful review of a SBLOCA model. During the meeting, it was proposed that a revised ABB/CE Appendix K Evaluation Model (EM) for SBLOCA be reviewed. This revised EM consists of the current EM with an improved heat transfer model for the hot rod analysis that is used to calculate peak cladding temperature (PCT) and peak local cladding oxidation percentage. This improved heat transfer model is taken directly from the REM. Entergy and ABB/CE have

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determined that this model improvement should be sufficient to support the power uprate project for Waterford 3 in lieu of the more complex approval process and longer time required for the SBLOCA REM approval.

The proposed review approach of the EM revision has the following benefits: (1) the new hot rod heat transfer model for the EM revision is common to the SBLOCA REM and need not be reviewed twice; therefore, minimizing the impact of the REM review on NRC; (2) it expedites the overall review process of the EM revision to support the Waterford 3 power uprate project; (3) the review of the specific aspects of the improved model should benefit from an earlier ABB/CE submittal and review by the NRC as part of the NRC Action Plan Item II.K.3.30 in 1985; (4) the SBLOCA REM documentation has already been reviewed by the NRC in an earlier format submitted in 1988; and, (5) the current format of the documentation addresses question #13 from the NRC official questions on the SBLOCA REM from 1991, which should help to support the appropriateness of the models application for both the REM and EM.

The documentation of the SBLOCA REM is contained in CEN 420-P, Volumes I, II, and III, and Supplements 1 and 2, which were all submitted in 1993. The specific sections that contain the model descriptions that will be the foundation of the EM revisions are Sections 2.11.1.4, 2.11.1.5, and 2.5.2.2. Similarly, the review process may benefit from a supplementary reading of Section 3.5 of CEN-203-P, Revision 1-P-A, submitted to NRC in March 1982 and approved by NRC in June of 1985, which closes out the ABB/CE response to the NRC Action Plan Item II.K.3.30. Since this information has already been submitted to the NRC, the review can begin before a submittal of formal documentation describing the revised EM (as agreed to at the meeting.)

The preferred SBLOCA ECCS performance analysis approach is still the use of the complete SBLOCA REM for this and other applications. The REM offers more potential for cost and safety improvements in the future. Thus, the revised EM review is envisioned as a first step toward the approval of the complete SBLOCA REM.

Our discussions during the meeting on January 23, 1996 established several target dates as a guide to planning the activities and interfaces. These target dates are:

NRC initiate review; technical meeting with ABB	3/18/96
ABB submit revised EM documentation	4/1/96 - 5/1/96
NRC issue SER for revised EM	3/1/97 - 4/1/97

We understand that the above time line does not represent firm commitments from any of the meeting participants as was agreed during the meeting. Also, as discussed during the meeting, this program guide contains little if any schedule margin relative to current plans for application of the EM revision to the Waterford 3 power uprate program.

If there are any questions regarding the above, please advise.

Very truly yours,



R.F. Burski
Director
Nuclear Safety

RFB/RWP/tmm

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