

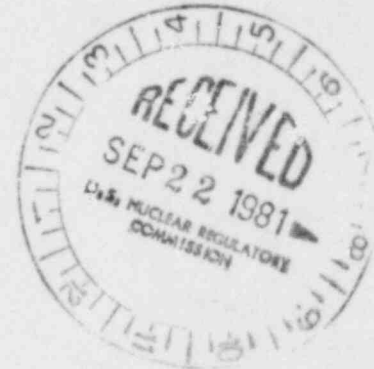


Docket No. 50-346
License No. NPF-3
Serial No. 743

RICHARD P. CROUSE
Vice President
Nuclear
(419) 258-5600

September 15, 1981

Director of Nuclear Reactor Regulation
Attention: Mr. John F. Stolz
Operating Reactor Branch No. 4
Division of Operating Reactors
United States Nuclear Regulatory Commission
Washington, D.C. 20555



Dear Mr. Stolz:

This is in response to Mr. R. W. Reid's letter dated February 24, 1981 (Log No. 663) to all Babcock & Wilcox Licensees concerning small break LOCA model to predict small break behavior. Our May 19, 1981 (Serial No. 709) response stated Toledo Edison would provide the post test evaluation of LOFT Test L3-1, and Semiscale Test S-07-10D, which are enclosed for Davis-Besse Nuclear Power Station Unit 1. Babcock and Wilcox submitted the LOFT L3-6 test prediction to the NRC on behalf of the B&W Owners Group (177 and 205 FA Plants) on March 20, 1981, which Toledo Edison endorses.

Mr. Reid's letter requested a response to four questions concerning the difference between the pretest predictions and the test data. These questions are addressed in the enclosed reports and a summary of the responses is provided below.

Question No. 1. Evaluate the code predictive capability using initial and boundary conditions consistent with the actual test data.

Response The evaluations provided demonstrate that the present small break analysis techniques result in good agreement with the test data when actual test conditions are considered.

Question No. 2. Identify code modifications and/or improvements necessary to predict the test data.

Response No code modification and/or improvements were necessary to predict the experiments. However, as noted in the S-07-10D post test analysis, a more detailed core representation was necessary to provide a best estimate simulation of the experiment due to the extensive core uncover which occurred in the test.

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Question No. 3. Assess whether any improvements and/or modifications necessary for code predictions to agree with test data should be incorporated in present ECCS small break evaluation models.

Response The core representation in the Evaluation Model gives conservative results when core uncover occurs. The more detailed representation of the core need not be included in the Evaluation Model.

Question No. 4. Identify shortcomings in the test facility, instrumentation, etc., and their impact on code prediction capability, and recommend improvements to the test facility, instrumentation, or test procedures to improve the verification process.

Response In order to improve the verification process, a modified approach should be used for future tests. The "Blind Pre-Test" prediction should be eliminated due to the fact that significant deviations have existed in the past tests between the planned conditions and the actual test condition. The predictions then become meaningless and a significant waste of money and manpower. Where appropriate a "Blind Post-Test Prediction" could be implemented instead, using the actual test input data and conditions. Following publication of test results from NRC, a "Post-Test Evaluation" may be necessary to verify the adequacy of the model.

This letter, together with the attached reports, constitutes Toledo Edison's reply to your February 24, 1981 request.

Very truly yours,

R. P. Crowe / gmk

RPC/GAB

Attachment

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cc: E3-1 NRC Resident Inspector