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THREE-MILE ISLAND - THERMAL SHOCK ON REACTOR VESSEL

C&CTB:DRL:SSP RT 200

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We have reviewed the draft of the Babcock & Wilcox submittal (Supplement No. 2, October 16, 1967) on the thermal shock on the Three Mile Island reactor vessel, due to the operation of the emergency core cooling system.

The information submitted on the ductile yielding mode of failure seems to be adequate to allow an evaluation of the problem. We would like, however, to have more details on the fracture mechanics analysis, reported on page 11-1-2 of the draft. Specifically we would like to know:

- a. The critical stress intensity factor (K_{IC}) actually used,
- b. The initial crack geometry and size assumed in the analysis,
- c. Equations used to correlate crack size with stress intensity.


We wonder also if the applicant critically reviewed the validity of the experimental data reported in the WAPD paper by Landerman, Yanichko, and Hazelton. We intend to discuss these items in the course of the October 17, 1967 meeting with the applicant.

cc: S. Levine
R. S. Boyd
B. Grimes

POOR ORIGINAL

bcc: R. C. DeYoung
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