

Maine Yankee

RELIABLE ELECTRICITY FOR MAINE SINCE 1972

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September 25, 1990
MN-90-96

SEN-90-272

UNITED STATES NUCLEAR REGULATORY COMMISSION
Attention: Document Control Desk
Washington, DC 20055

References: (a) License No. DPR-36 (Docket No. 50-309)
(b) License No. DPR-36 (Docket No. 50-029)
(c) USNRC Letter to Maine Yankee, Subject: Meeting Summary on
STAR Core Reload Code, dated June 11, 1990

Subject: Submittal of STAR Methodology Application for PWRs - Report Volume 1 and
Schedule for Submitting Volume 2

Dear Sir:

On June 5, 1990, we met with the NRC staff (Reference (c)) to discuss the submittal of our STAR methodology application for PWRs. The intent is to use this methodology as a generic Yankee Atomic Electric Company (YAEC) PWR methodology for the rod ejection and main steam line break transients.

The first volume of this report, "STAR Methodology Application for PWRs - Control Rod Ejection - Main Steam Line Break - Volume 1: Code Description - Benchmarks," is enclosed with this letter. "Volume 2: Applications," will be submitted by October 31, 1990. STAR (Space and Time Analysis of Reactors) is a three dimensional space time reactor physics code coupled with thermal hydraulic codes. It forms the basis of our methodology which will be applied to the rod ejection and main steam line break transient analyses.

YAEC intends to use these methods first in Cycle 13 of Maine Yankee Atomic Power Station, scheduled for a fall 1991 startup. We will begin licensing analysis for Cycle 13 in early 1991. In our June 5, 1990 meeting with the NRC, we requested that review of the STAR submittal be completed by October of 1991. In Reference (c) the NRC indicated that our schedule was realistic and that staff review could be completed in time to apply the STAR based methodology to the Cycle 13 reload.

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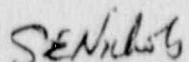
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The first volume of the report is being supplied now to allow the review process to start as early as possible. It provides the code description and benchmarks that validate the use of STAR for its intended purpose. The second volume will provide a complete description of the application of STAR to both the rod ejection and main steam line break transient analyses.

We trust that you will find this submittal satisfactory. In order to expedite the review process, we are willing to discuss the submittal with you at any time during your review.

Very truly yours,



S. E. Nichols
Licensing Section Head

SEN:SJJ

Enclosures

c: Mr. Eric J. Leeds
Mr. Thomas T. Martin
Mr. Charles S. Marschall
Mr. Patrick Sears

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