



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

April 29, 1996

MEMORANDUM TO: Chairman Jackson
Commissioner Rogers
Commissioner Dicus

FROM: James M. Taylor *[Signature]*
Executive Director for Operations

SUBJECT: SUPPLEMENT TO DRAFT SAFETY EVALUATION REPORT ON AP600 COMPUTER CODES AND TESTING PROGRAM

On June 26, 1992, Westinghouse Electric Corporation tendered its application for certification of the AP600 standard design with the U.S. Nuclear Regulatory Commission. This application was submitted under Part 52 of Title 10 of the Code of Federal Regulations: Subpart B ("Standard Design Certifications,") and Appendix O, "Standardization of Design: Staff Review of Standard Designs." The staff accepted the application formally as a docketed petition (Docket No. 52-003) for design certification on December 31, 1992.

On November 30, 1994, the Nuclear Regulatory Commission's Office of Nuclear Reactor Regulation issued a draft safety evaluation report (DSER) on the Westinghouse AP600 design certification application on the basis of information that had been received by June 30, 1994. At the time the DSER on the AP600 was being prepared, the Westinghouse test programs and code development and qualification efforts in support of the AP600 design were still in progress. Consequently, it was not possible for the staff to reach any final conclusions on the extent to which those programs met the applicable requirements of 10 CFR Part 52. The staff committed to issue a supplement to the draft safety evaluation report after the testing program and code qualification effort were sufficiently complete and the related documentation developed, analyzed, and submitted by Westinghouse to permit adequate staff review.

The staff's review is not yet complete, as discussed below. The staff has, however, prepared the attached supplement to the DSER to describe the status of the review. The staff addressed the following three areas of the testing program and code development and qualification effort:

- acceptability of the AP600 testing program
- quality of the AP600 analysis codes
- acceptability of the analysis codes for evaluating the AP600 design

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During the review, the staff made many requests for additional information. Westinghouse has supplemented the application with information in the AP600 Standard Safety Analysis Report through Revision 6 (dated March 29, 1996), together with other supporting submittals which have been placed on the docket. Unless otherwise noted, this supplement reflects the staff's review and consideration of information submitted through January 31, 1996. In accordance with Commission directives, we have attached the supplement to the DSER in order to inform the Commission of the status of the review of the AP600 design certification application in these important areas. This document is being issued in accordance with the schedule for the review of the AP600 that was described in SECY-96-068, "Status of the Staff's Review of Advanced Reactor Designs," dated April 1, 1996.

The staff has identified 120 open items and 16 confirmatory items that must be resolved before it can complete the review of the testing program and code development areas of the AP600 design certification application. These items are summarized in Sections 1.6 and 1.7 of the attached report. In order to close these items, the staff will require the additional information identified in this report and in applicable requests for additional information issued by the staff. The staff will provide its conclusions on the AP600 testing program and code development as part of the overall review of the AP600 standard design in the Final Safety Evaluation Report.

A copy of the supplemental draft safety evaluation report will be forwarded to the Advisory Committee on Reactor Safeguards to assist in their review of the AP600 design.

The staff plans to forward this supplement to the DSER to Westinghouse three workdays after the date of this paper. Westinghouse has requested that portions of the information submitted in the June 1992 application for design certification be exempt from mandatory public disclosure. The staff concludes that the attached supplement to the DSER does not contain those portions of the information for which exemption is sought. However, the staff will withhold this report from public disclosure for 30 calendar days from the date of the report transmittal letter to allow Westinghouse the opportunity to verify the staff's conclusions. Therefore, I recommend that the Commission not release the attached report for 30 days from the date of the report transmittal letter.

Note that as a result of its continuing review, the staff has identified several potential new policy and key technical issues. The staff is developing a separate policy paper discussing these issues that will be forwarded to the Commission by May 31, 1996.

Attachment:
 Supplement to the Draft
 Safety Evaluation Report
 for the AP600 (with
 transmittal letter)

cc: SECY
 OGC
 OCA (w/o attachment)
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