UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

COMSECY-98-025

August 28, 1998

MEMORANDUM TO: Chairman Jackson
Commissioner McGaffigan
Commissioner Diaz

FROM: L. Joseph Callan
Executive Director for Operations

SUBJECT: FINAL SAFETY EVALUATION REPORT (FSER) AND FINAL DESIGN APPROVAL (FDA) FOR THE AP600

In its staff requirements memorandum (SRM) of December 15, 1989, the Commission directed the NRC staff to provide it with a copy of all draft or final safety evaluation reports on standard designs before they are issued. In SECY-97-298, "Revised Schedule for the Staff's Review of the AP600 Design Certification Application," dated December 24, 1997, the staff estimated that it would issue the AP600 FSER to the Commission in August 1998. This memorandum notifies the Commission of the staff's intent to publish the FSER for the Westinghouse Electric Company's AP600 standard plant design (Attachment 1), as discussed in my memorandum of August 20, 1998.

The staff sent the Commission the advance version of the FSER in SECY-98-097, "Advance Final Safety Evaluation Report on the Westinghouse AP600 Standard Design," on May 1, 1998. Since that time, the staff has resolved the open and confirmatory items identified in Sections 1.9 and 1.10 of that report that required resolution before an FDA could be issued. In addition, the Advisory Committee on Reactor Safeguards has issued a letter report on the AP600 that is required by 10 CFR 52.53; that ACRS report appears in Appendix G of the AP600 FSER.

There are three confirmatory items (see Section 1.9 of the attached FSER) that do not need to be resolved before issuing the FDA. Westinghouse has committed to formally submit updates to the non-proprietary versions of certain documents withheld from public disclosure in accordance with 10 CFR 2.790, which will resolve one of these matters. If Westinghouse decides to proceed with design certification, then it must complete the other two confirmatory items; i.e., submit the design control document (DCD) and designate Tier 2* information (identified in Section 1.7 of the FSER) in the DCD.

The staff has also prepared an FDA for the AP600 standard design (Attachment 2). Issuance of the FDA signifies completion of the technical review phase and readiness for the rulemaking phase of Westinghouse's design certification application. The format of the AP600 FDA is identical to previously issued FDAs, including the FDAs for the evolutionary designs, except for the highlighted provision that was added to Item 6 of the AP600 FDA. This provision was added

to ensure the enforceabiltiy of the availability controls that were developed to resolve the issues concerning the regulatory treatment of non-safety-related systems that are discussed in Chapter 22 of the AP600 FSER. The duration of the FDA is 5 years, in accordance with the Commission's Standardization Policy of August 1978. This policy statement still controls the duration of FDAs because Appendix O to 10 CFR Part 52 does not specify a duration. If the AP600 design is subsequently certified, the initial FDA will then be updated, as needed, to conform to any changes resulting from the design certification rulemaking and will be in effect for the duration of the design certification, in accordance with COMSECY-94-025. The updated FDA will be consistent with the revised FDAs for the evolutionary designs.

In its August 11, 1998, letter (Attachment 3), Westinghouse requested that the NRC expedite the issuance of an FDA for the AP600 design to support a bidding competition for a proposed addition to the Paks nuclear station in Hungary. Westinghouse requested that the FDA be issued by September 4, 1998, to allow it time to include a copy of the FDA in a bid package that must be submitted on September 10, 1998.

In summary, there are no remaining open or confirmatory issues on the AP600 design that prevent issuing the FSER and FDA. Therefore, unless otherwise directed by the Commission, the staff intends to publish the FSER and issue the attached FDA for the AP600 design on or before September 4, 1998. If Westinghouse decides to proceed with design certification, then it will submit the AP600 design control document for NRC review this fall. After completing its review of the design control document, the staff will submit the proposed design certification rule to the Commission for its review.

Coordination:

The Office of the General Counsel has reviewed this memorandum and has no legal objection to the publication of the FSER or issuance of the FDA for the AP600 design.

Attachments: As stated

cc: SECY
OCA
OPA
OGC
CIO
CFO

Final Safety Evaluation Report Related to Certification of the AP600 Standard Design Docket No. 52-003

Manuscript Completed: August 1998

Division of Reactor Program Management
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Attachment 1

DOCKET NO. 52-003

AP600 STANDARD DESIGN

FINAL DESIGN APPROVAL (FDA)

PURSUANT TO 10 CFR PART 52, APPENDIX O

(1) Westinghouse Electric Company has submitted to the Nuclear Regulatory Commission's (NRC's) staff, for its review, a standardized design for a major portion of a nuclear power facility of the type described in 10 CFR 50.22. Westinghouse's standard design is described in the AP600 Standard Safety Analysis Report (SSAR), including Revisions 1 through 25, thereto, and the AP600 Probabilistic Risk Assessment (PRA), including Revisions 1 through 13, thereto.

(2) The SSAR and its references contain design information required by 10 CFR Part 52, Appendix O, Paragraph 3, for a standard plant design. The AP600 standard design, whose scope is defined in SSAR Section 1.8, is a nuclear power facility with a rated reactor core power level of 1933 megawatts thermal.

(3) The NRC staff and the Advisory Committee on Reactor Safeguards (ACRS) have reviewed the AP600 standard design. The findings of the staff's evaluation of the AP600 standard design are presented in the Final Safety Evaluation Report (FSER), dated September 1998 (NUREG-1512). The ACRS reported on the application for design certification in a letter dated July 23, 1998, as required by 10 CFR Section 52.53.

(4) On the basis of its review and the findings reported in the FSER, the staff concludes that the information in the SSAR and PRA, with respect to the AP600 design described in paragraph 2 above, complies with the requirements of 10 CFR Part 52, Appendix O.

(5) The AP600 standard design is acceptable for use as a reference design for construction permit and operating license applications and combined license applications for facilities that are located at sites whose characteristics are within the envelope of site parameters given in the SSAR, and the out-of-scope portions of the plant that interface with the approved design conform to the interface requirements given in the SSAR.

(6) This FDA and all applications for operating licenses incorporating it by reference, are subject to all applicable provisions of the Atomic Energy Act, as amended, and the rules, regulations, and orders of the Commission now or hereafter in effect. In addition, licensees who reference the AP600 standard design shall comply with the operational requirements in the SSAR, including the technical specifications and availability controls in Chapter 16 of the SSAR.

(7) This FDA does not constitute a commitment to issue a permit, design certification, or license, or in any way affect the authority of the Commission, the Atomic Safety and Licensing Board, and other presiding officers, in any proceeding pursuant to Part 2.

(8) This FDA is effective on the date it is issued and will expire on September , 2003, unless the NRC staff extends the date. The expiration of the FDA shall not affect its use in applications docketed before such date.

Dated in Rockville, Maryland, this day of September 1998.

FOR THE NUCLEAR REGULATORY COMMISSION

Samuel J. Collins, Director
Office of Nuclear Reactor Regulation

Westinghouse Electric Company

Energy Systems Business Unit

W E Cummins (Ed)
General Manager
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Westinghouse Energy Center
PO Box 355
Pittsburgh Pennsylvania 15230-0355

August 11, 1998

Docket: 52-003

Mr. Samuel J. Collins, Director
Office of Nuclear Reactor Regulation
Nuclear Regulatory Commission
Washington, DC 20555

SUBJECT: AP600 FINAL DESIGN APPROVAL

Dear Mr. Collins:

Westinghouse is pursuing the first implementation of the AP600 nuclear plant, in competition with two other foreign nuclear plant designs, for a proposed addition to the Paks nuclear station in Hungary. This competition has been underway for nearly two years and is nearing the final decision. In the event that the AP600 Final Design Approval, FDA, is not available by September 10, 1998, we have been told that AP600 will no longer be considered as a viable option in this competition.

As background, MVM, the national electric utility issued a request for bids for new baseload capacity of 600MWe plus or minus 200MWe. Plants fueled by natural gas were specifically excluded from consideration for national strategic reasons, however, coal, oil and nuclear sources could be proposed. Paks Atomeromu Rt., a company comprising the Nuclear Power Station at Paks, which is owned by MVM, is bidding in response to this request. Paks submitted bids for each of the three competing nuclear options. Paks has passed the first stage of the competition with their initial submittals, and is preparing for the final submittal (second stage). The request for bids included detailed specifications and established the rules for the competition.

Earlier this year, the specification was officially amended by MVM with the following words: "The nuclear power plant constituting the object of the bid shall possess a standard license issued by the nuclear regulatory authority responsible for nuclear safety in the country of origin of the nuclear power plant on the date of tender." The specification also stipulates: "In the event that a nuclear power plant constitutes the object of the bid, a certified copy of the standard license or establishment license issued by the nuclear regulatory authority responsible for nuclear safety in the country of origin of the nuclear power plant shall also be submitted." And, finally: "Bid submission date in the second stage is: September 10, 1998, 9:00 a.m. to 11:00 a.m."

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Thus it is of paramount importance that the AP600 FDA be available for submittal by Paks together with their bid. We have been unable to obtain any relief from MVM on this specific bid requirement.

Since the NRC issued the AP600 Advance Final Safety Evaluation Report, AFSER, on May 1, 1998, Westinghouse has updated the SSAR, PRA and Tier 1 material, responded to all of the confirmatory items and have closed six of the eight open items. An updated response to the open item concerning the AP600 conformance to the Advanced Light Water Reactor Utility Requirements Document will be provided by Thursday, August 13, 1998 to close one of the two remaining open items. Concerning the last AFSER open item, the staff completed their review of the Westinghouse proprietary submittals on July 21, 1998 and Westinghouse is in the process of responding to these assessments. We expect to have provided proper proprietary versions of the proprietary material supporting the AP600 design certification review to the staff by August 21, 1998. In addition, very minor revisions to the PRA and Tier 1 material will be completed by Friday, August 14, 1998 to incorporate what we understand are final staff comments.

I understand that your staff agrees with this Westinghouse status summary and finds the proposed schedule for the Westinghouse action items acceptable.

We therefore believe the staff has sufficient information to complete the AP600 Final Safety Evaluation Report and are hopeful that the AP600 Final Design Approval can be issued in a timeframe that supports our efforts to have the AP600 considered as a viable option for Hungary. Westinghouse and your staff have established a target date of September 4, 1998 for the issuance of the AP600 FDA to permit Westinghouse some time to incorporate the FSER and FDA into the proposal.

Very truly yours,

Ed Cummins

W. E. Cummins, General Manager
New Plant Projects Division

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cc: J. W. Roe
T. R. Quay

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