

January 15, 2002

Mr. Gordon Bischoff, Project Manager
Westinghouse Owners Group
Westinghouse Electric Company
Mail Stop ECE 5-16
P.O. Box 355
Pittsburgh, PA 15230-0355

SUBJECT: WESTINGHOUSE TOPICAL REPORT WCAP-15622, REV. 0, "RISK-INFORMED
EVALUATION OF EXTENSIONS TO AC ELECTRICAL POWER SYSTEM
COMPLETION TIMES"

Dear Mr. Bischoff:

By letter dated June 15, 2001, the Westinghouse Owners Group (WOG) submitted for staff review Topical Report (TR) WCAP-15622, Rev. 0, "Risk-Informed Evaluation of Extensions to AC Electrical Power System Completion Times." In a subsequent letter dated October 5, 2001, the WOG requested that the staff review, in conjunction with review of WCAP-15622, NEI Technical Specification Task Force (TSTF) Traveler TSTF-417, Rev. 0, "AC Electric Power System Completion Times" (WCAP-15622). This review is in progress.

The staff has completed its preliminary review of WCAP-15622 and has identified a number of items for which additional information is needed to continue its review. On November 29, 2001, the NRC staff provided a second set of informal questions to the WOG via facsimile. These questions were discussed during a conference call with your staff on December 13, 2001. The staff is now forwarding the enclosed request for additional information (RAI) based on that call. Please provide the requested information so that the review can be completed in a timely manner. You indicated in a subsequent conference call that responses would be provided by April 15, 2002. Partial submittals would be welcomed to minimize delays.

Pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR), Section 2.790, we have determined that the enclosed RAI does not contain proprietary information. However, we will delay placing the RAI in the public document room for a period of ten (10) working days from the date of this letter to provide you with the opportunity to comment on the proprietary aspects

G. Bischoff

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only. If you believe that any information in the enclosure is proprietary, please identify such information line by line and define the basis pursuant to the criteria of 10 CFR 2.790.

If you have any questions, please call me at (301) 415-1436.

Sincerely,

/RA/

Drew Holland, Project Manager, Section 2
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Project No. 694

Enclosure: Request for Additional Information

cc w/encl:
Mr. H. A. Sepp, Manager
Regulatory and Licensing Engineering
Westinghouse Electric Company
P.O. Box 355
Pittsburgh, PA 15230-0355

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REQUEST FOR ADDITIONAL INFORMATION

WCAP-15622, "RISK-INFORMED EVALUATION OF EXTENSIONS TO

AC ELECTRICAL POWER SYSTEM COMPLETION TIMES"

WESTINGHOUSE OWNERS GROUP

PROJECT NO. 694

1. Section 5.1 of WCAP-15622 [i.e., the Improved Standard Technical Specifications (ISTS)] conveys that [given a system design that meets design basis requirements defined below] a three-day completion time (CT) for an inoperable ac onsite electric power source takes into account (a) the capacity and capability of the remaining ac sources (i.e., the CT is so short that the probability for failure of engineered safety feature (ESF) systems and the remaining operable electric power sources during the CT is considered commensurate with the probability for failure of ESF systems and electric power sources when they are operable and not subject to a CT), (b) the low probability of a design basis accident (DBA) occurring during the CT, and (c) a reasonable time for repairs. Design basis requirements include:
 - i. ESF systems are operable;
 - ii. ac electric power sources are designed to provide sufficient capacity, capability, redundancy, and reliability to ensure the availability of necessary power to ESF systems so that fuel, reactor coolant system, and containment design limits are not exceeded;
 - iii. at least one train of safety systems will remain operable in the event of (a) an assumed loss of all offsite power and a worst case single failure, and (b) an assumed loss of all onsite ac power and a worst case single failure.

If the 3-day CT is increased to a 7-day, 14-day, or longer CT, describe programs and activities and identify existing Final Safety Analysis Report (FSAR) commitments (or proposed new FSAR or technical specification (TS) commitments) which are (or will be) credited to ensure that the increased CT does not impact design basis requirements. Explain how, with an increased CT, the limiting condition for operation (LCO) will remain so short that the probability for failure of operable ESF systems and the remaining operable electric power sources during the LCO can be considered commensurate with the probability for failure of operable ESF systems and electric power sources when all electric power sources are operable.

2. Explain how (and to what extent) the risk arguments presented in the WCAP can be related to the probability for failure of operable ESF systems and remaining operable power sources during the LCO as compared to the probability for failure of operable ESF systems and electric power sources when all electric power sources are operable.

3. The first bullet in Section 7.1 conveys that the likelihood of a transient occurring during the increased CT for an ac onsite electric power system has not been impacted and that some new activities may be performed on the diesel generators (DG) while at power. Explain how and why these new activities will not affect or impact the likelihood of maintenance or test induced transients.
4. Section 5.1 of WCAP-15622 [i.e., the Improved Standard Technical Specifications (ISTS)] conveys that [given a system design that meets design basis requirements defined below] a 2-hour CT for an inoperable vital ac electric power source takes into account (a) the importance to safety of restoring the ac vital bus to operable status, (b) the redundant capability afforded by the other operable vital buses (i.e., the CT is so short that the probability for failure of ESF systems and the remaining operable ac, dc, and vital ac electric power sources during the CT is considered commensurate with the probability for failure of ESF systems and ac, dc, and vital ac electric power sources when they are operable and not subject to a CT), and (c) the low probability of a DBA occurring during the CT. Design basis requirements include:
 - i. ESF systems are operable;
 - ii. ac electric power sources are designed to provide sufficient capacity, capability, redundancy, and reliability to ensure the availability of necessary power to ESF systems so that fuel, reactor coolant system, and containment design limits are not exceeded;
 - iii. at least one train of safety systems will remain operable in the event of (a) an assumed loss of all offsite power and a worst case single failure, and (b) an assumed loss of all onsite ac power and a worst case single failure.

If the 2-hour CT is increased to a 24-hour CT, describe programs and activities and identify existing FSAR commitments (or proposed new FSAR or TS commitments) which are (or will be) credited to ensure that the increased CT does not impact design basis requirements. Explain how, with an increased CT, the LCO will remain so short that the probability for failure of operable ESF systems and the remaining operable ac, dc, and ac vital electric power sources during the LCO can be considered commensurate with the probability for failure of operable ESF systems and operable ac, dc, and ac vital electric power sources when all electric power sources are operable.

5. Explain how (and to what extent) the risk arguments presented in the WCAP can be related to the probability for failure of operable ESF systems and remaining operable ac, dc, and ac vital electric power sources during the LCO as compared to the probability for failure of operable ESF systems and operable ac, dc, and ac vital electric power sources when all ac, dc, and ac vital electric power sources are operable.