



52-003

UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

September 24, 1996

Mr. Nicholas J. Liparulo, Manager
Nuclear Safety and Regulatory Activities
Nuclear and Advanced Technology Division
Westinghouse Electric Corporation
P.O. Box 355
Pittsburgh, Pennsylvania 15230

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION (RAI) ON THE WESTINGHOUSE ANALYSIS RESULTS FOR THE AP600 SHIELD BUILDING ROOF STRUCTURE

Dear Mr. Liparulo:

The Nuclear Regulatory Commission (NRC) Civil Engineering and Geosciences Branch staff has determined that it needs additional information in order to complete its review of the Westinghouse AP600 shield building roof structure.

The following information is needed for the staff to compare its confirmatory analysis results with the results generated by Westinghouse.

RAI# 220.105

The analysis results described in items 1 and 2, given below, are requested for each of the following load cases:

- i) Dead load (D)
- ii) Hydrostatic pressure (F)
- iii) Wind pressure (W)
- iv) Temperature (T) for case n, and case p
- v) Snow load (L)
- vi) Seismic load (Ess)

1. Provide the maximum and minimum values of stress resultants (force/unit length) in the shield building at different elevations.
2. Provide the member forces (i.e., axial force, shear force, bending moments and torsion) in the compression ring near Elev. 288-6 1/32" and in the tension ring at the conical roof-shield building junction. Please provide this information at different Azimuth.
3. Provide the stress resultants and member forces, similar to those listed in items 1 and 2, respectively, for the following two load combinations.

Load combination 1 $U = 1.4D + 1.4F + 1.7L + 1.7W$

Load combination 2 $U = D + F + L + T + Ess$

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4. Define the direction and the units for each of the member forces and the stress results requested in items 1, 2, and 3. Also, define the dimensions of the cross section for the compression and tension rings.

You have requested that portions of the information submitted in the June 1992, application for design certification be exempt from mandatory public disclosure. While the staff has not completed its review of your request in accordance with the requirements of 10 CFR 2.790, that portion of the submitted information is being withheld from public disclosure pending the staff's final determination. The staff concludes that these questions and comments do not contain those portions of the information for which exemption is sought. However, the staff will withhold this letter from public disclosure for 30 calendar days from the date of this letter to allow Westinghouse the opportunity to verify the staff's conclusions. If, after that time, you do not request that all or portions of the information in the enclosures be withheld from public disclosure in accordance with 10 CFR 2.790, this letter will be placed in the NRC Public Document Room.

If you have any questions regarding this matter, you may contact me at (301) 415-8548.

Sincerely,

original signed by:

Diane T. Jackson, Project Manager
Standardization Project Directorate
Division of Reactor Program Management
Office of Nuclear Reactor Regulation

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cc: See next page

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Mr. Nicholas J. Liparulo
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AP600

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Letter to be distributed to the following addressees after the result of the proprietary evaluation is received from Westinghouse:

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