May 9, 1997

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 AP600 ADVANCED REACTOR DESIGN REGARDING THE SOLID RADIOACTIVE WASTE SYSTEM

Dear Mr. Liparulo:

The Nuclear Regulatory Commission staff has determined that it needs additional information in order to continue its review of the Westinghouse AP600 advanced reactor design. The enclosure is RAI# 460.27 regarding standard safety analysis report Section 11. Because of the design changes in AP600 solid waste system, the Plant Systems Branch needs additional information to re-review the issue of onsite waste storage capacity. This issue was found acceptable in the draft safety evaluation report (DSER). However, the basis for the acceptance in the DSER is not valid in the revised design.

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

Docket No. 52-003

Enclosure: As stated

cc w/enclosure:
See next page

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Docket No. 52-003
AP600

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REQUESTS FOR ADDITIONAL INFORMATION
PLANT SYSTEM BRANCH
WESTINGHOUSE AP600 SSAR SECTION 11

In Section 11.4 of the DSER, the staff reviewed the AP600 solid waste system regarding the amount of shipment and onsite storage capacity and found it acceptable. However, Westinghouse changed the design after the DSER was issued, and the onsite storage spaces identified in the DSER do not exist any more. The bases for the DSER finding is no longer valid. In order to re-review the storage capacity for solid waste, the staff requests the following information:

460.27 In a telecon of April 8, 1997, Westinghouse stated that: in the revised design, two spent resin tanks and nine spent filter tubes in the auxiliary building, and a packaged waste storage room in the radwaste building are designed for onsite storage. The remaining solid waste is expected to be shipped offsite. If this is correct, the staff finds the information in Section 11.4 of the SSAR to be incomplete. For example, the number of spent filter tubes and their storage capacity, and the expectation for the COL applicant to provide sufficient shipment capability by a mobile systems are not specified in the SSAR.

a. Revise the SSAR to address the above staff concern.

b. Using the data in SSAR Table 11.4-1, Westinghouse is requested to demonstrate that the AP600 has sufficient storage capacity to allow time for short-lived radionuclides to decay prior to shipping in accordance with the regulatory guidance in the standard review plan (SRP) Section 11.4, Paragraphs II.6 and III.4, and BTP ETSB 11-3 Position B.III.

c. 1. In SSAR Table 11.4-1, the amount of "expected" generation and "expected" shipped solid waste are significantly lower than that of "maximum" generation and "maximum" shipped solid waste. Clarify whether the designed process and storage capacity are based on the "expected" amount or on the "maximum" amount.

If the design storage capacity is based on the expected amount:

2. explain how the AP600 will handle the waste that is beyond what is expected, and

3. compare the values given in the SSAR for the volumes and radionuclide content of solid waste to be shipped offsite with data from operating plants of similar size.

Enclosure