



Westinghouse  
Electric Corporation

Energy Systems

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ET-NRC-92-3761  
NSP-A-APSL-92-0222  
Docket No. 52-003

October 23, 1992

Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

ATTENTION: DR. THOMAS MURLEY

SUBJECT: AP600 TIER 1 DESIGN CERTIFICATION MATERIAL

Dear Dr. Murley:

Enclosed are 40 copies of the Westinghouse AP600 Tier 1 Design Certification material for staff review. This Tier 1 Design Certification material consists of the following 28 systems:

REACTOR

- Fuel Handling and Refueling System
- Reactor Coolant System
- Reactor System

NUCLEAR SAFETY SYSTEMS

- Passive Containment Cooling System
- Main Control Room Habitability System

AUXILIARY SYSTEMS

- Component Cooling Water System
- Chemical and Volume Control System
- Standby Diesel and Auxiliary Boiler Fuel Oil System
- Fire Protection System
- Mechanical Handling System
- Primary Sampling System
- Normal Residual Heat Removal System
- Spent Fuel Pit Cooling System
- Containment Hydrogen Control System

STEAM AND POWER CONVERSION SYSTEMS

- Main and Startup Feedwater System
- Main Steam System

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#### INSTRUMENTATION AND CONTROL

- Data Display and Processing System
- Incore Instrumentation System
- Operation and Control Centers
- Plant Control System
- Diverse Actuation System
- Radiation Monitoring System

#### ELECTRICAL POWER

- Main AC Power System
- Non Class 1E DC and UPS System
- Plant Lighting System

#### HEATING, VENTILATING, AND AIR CONDITIONING SYSTEMS

- Nuclear Island Nonradioactive Ventilation System
- Central Chilled Water System
- Diesel Generator Building Ventilation System

This submittal also contains the Tier 1 Design Certification material for the seven systems which were transmitted by letter ET-NRC-92-3743 on September 4, 1992. The only modification made to this material was to assign the section numbers that will be used in the Tier 1 Design Certification material volume. The seven systems are:

- Class 1E DC and UPS System
- Containment System
- Onsite Standby Power System
- Passive Core Cooling System
- Protection and Safety Monitoring System
- Service Water System
- Steam Generator System

These 35 systems Tier 1 Design Certification material contain preliminary values depicted in brackets and will be finalized during the review process with the staff.

The system Tier 1 Design Certification material that remains outstanding is the Annex/Aux Building Nonradioactive Ventilation System which will be included in the December 15, 1992 submittal.

The final submittal for the AP600 Tier 1 Design Certification material will occur on December 15, 1992. This will include the Introduction, General AP600 Description, Non-System Tier 1 material, and the Site Parameters.

The Westinghouse Electric Corporation copyright notice is also attached.

This material incorporates lessons learned from the industry reviews of the lead plant Tier 1 material. Industry reviews of this Tier 1 material were also performed.

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Please contact Mr. Brian A. McIntyre on (412) 374-4334 or Diane Antolovich on (412) 374-4215 if you have any questions concerning this transmittal.



Nicholas J. Liparulo, Manager  
Nuclear Safety & Regulatory Activities

/nja

Attachment

cc: F. Hasselberg  
B. McIntyre

NRC  
Westinghouse

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