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NTD-NRC-94-4225
DCP/NRC0179
Docket No.:STN-52-003

August 5, 1994

Document Control Desk
Nuclear Regulatory Commission
Washington DC 20555

ATTN: Mr. Dennis M. Crutchfield

SUBJECT: DRAFT SAFETY EVALUATION REPORT FOR THE AP600

REFERENCE 1) Letter, Taylor to the Commission, July 14, 1994
2) Letter, Crutchfield to Liparulo, July 22, 1994

In reference 1, the staff provided the Commission with an expedited review schedule for the AP600 that would result in the final design approval being issued in September, 1996. This schedule included issuing a draft safety evaluation report (DSER) in November, 1994. Reference 2 expressed a concern that information not submitted by June 30, 1994 might not be considered in the DSER and would be designated as open issues for later resolution.

Issuance of the AP600 DSER in November, 1994 is an important milestone in the AP600 design certification review process. Westinghouse has made significant achievements in the areas of testing programs, submitting information to the NRC for their review and responding to staff questions and comments. The information Westinghouse has provided to the staff allows a meaningful DSER to be prepared.

The attachment presents the status of the outstanding design material mentioned in reference 2. In addition, the attachment presents additional material that has been provided to the staff since May to assist the review of the AP600.

As mentioned in reference 2, revision 2 of the AP600 SSAR was delayed to allow Westinghouse to complete RAI responses. To assist the staff in their review of the RAI responses, the RAI responses provided have included in-context SSAR text updates where appropriate. To further assist the staff in preparation of the DSER, a table will be provided that cross references the SSAR

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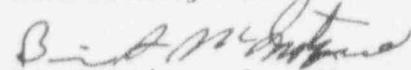
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sections to the RAI's. This table will be provided by August 12, 1994.

The AP600 DSER will allow both the staff and Westinghouse to focus their efforts on an identified specific set of open items. The significant progress made in the review and the information provided to the staff makes the AP600 DSER in November an achievable objective.

Please contact Brian A. McIntyre if you have any questions concerning the AP600 design certification review.



N. J. Liparulo, Manager
Nuclear Safety Regulatory And Licensing Activities

Attachment to NTD-NRC-94-4255
DCP/NRC0179

AP600 INFORMATION SUBMITTED TO SUPPORT DSER PREPARATION

REQUESTS FOR ADDITIONAL INFORMATION

A total of 1995 requests for additional information have been received from the staff. Westinghouse has provided over 1860 responses to these RAIs.

HUMAN FACTORS

Two WCAP reports requested by the Human Factors Branch reviewers have been completed and submitted to the NRC. These two reports cover the incorporation of operating experience in the AP600 design.

RELIABILITY ASSURANCE PROGRAM

The reliability assurance program example submittal is currently in technical review. Following a management review, the report will be submitted by September 9, 1994. This item is not critical for the DSER since it serves to illustrate execution of the DRAP process.

PROBABILISTIC RISK ASSESSMENT

The revision to the AP600 probabilistic risk assessment report has been submitted to the NRC. This revision included the addition of decomposition event trees, incorporation of responses to RAIs, containment event trees, conditional containment failure probability distributions and requantification of the level 2 and level 3 PRA. In addition, the seismic margins assessment requested by the staff was added. Many of the items in this submittal were previously discussed with the staff. The report was therefore documentation that Westinghouse had completed the activities.

OTHER DSER SUPPORTING INFORMATION PROVIDED IN JUNE AND JULY

Thirty test and analysis reports were provided to the NRC for their information. This included 20 quick look data reports covering the tests performed at the Oregon State University, SPES-2, CMT and critical heat flux test facilities. Facility description reports were submitted on the Oregon State University test facility, SPES-2 test facility, and the CMT test facility.

Final data reports were submitted for the PCCS test and the wind tunnel phase IVB test. Reports were submitted on the PCCS preliminary scaling analysis, PCCS shell water coverage and the sensitivity of small break LOCA results to containment pressure.

Meetings were held with the staff to review responses to RAIs and audit work performed in the areas of piping design(4 days), soil structure interactions (7 days), reactor internals design (2 days) and containment design (3 days). Meetings were also held on the AP600 approach to technical specifications, passive system reliability, PRA and the passive containment cooling test and analysis program.

TESTING STATUS (8/5/94)

OSU

All matrix testing completed
NRC staff witnessed 9 tests
6 months ahead of schedule

SPES-2

8 of 11 matrix tests completed
NRC staff or ANPA has witnessed 8 tests
1 month ahead of schedule

PCCS

All matrix testing completed
NRC witnessed 2 tests

CMT

19 of 40 matrix tests completed
NRC staff has witnessed 1 test
Testing matrix revised in response to NRC comments
1 month behind schedule
CMT testing is not critical path item

ADS

6 of 25 matrix tests completed
On schedule