June 22, 2001

APPLICANT: Westinghouse Electric Company

FACILITY: AP 1000 Standard Plant Design

SUBJECT: SUMMARY OF MEETING ON REVIEW OF AP1000 DESIGN ANALYSIS CODES

The subject meeting was held on June 6, 2001, at the Nuclear Regulatory Commission (NRC) offices in Rockville, Maryland, and was attended by representatives of the Westinghouse AP1000 team, the press and NRC staff. Enclosures 1 and 2 are lists of the meeting attendees for the separate morning and afternoon sessions of the meeting, Enclosure 3 is a compendium of the slides used by Westinghouse during their presentation and Enclosure 4 is a set of slides used by NRC staff.

The purpose of the meeting was for Westinghouse to present and discuss the design codes used to develop the AP1000 reactor design to advance staff's continuing work on this phase of the AP-1000 review (a review of key regulatory issues prior to a subsequent formal application for Design Certification under NRC's CFR 10 Part 52 process). The AP1000 package was presented as an evolution of the Westinghouse AP600 design which was "Design Certified" by NRC in 1999. In support of AP1000 Westinghouse also presented their analysis to confirm that the various tests developed and conducted to confirm the novel features of the AP600 design remained valid for the enlarged plant. The Westinghouse presentation followed the outline of Enclosure 3 with additional supporting proprietary material. The single member of the public attending the meeting was not present during the presentation and discussion of the proprietary material. As part of the dialogue the NRC staff presented the result of a provisional analysis of plant performance that they had conducted using independent codes which staff had developed in support of their AP600 analysis.

The presentation and discussion were useful to the NRC staff as an aid to their understanding of previous Westinghouse proprietary submission WCAP 15644, "AP1000 Code Applicability Report." A number of agreements were reached for additional material to be submitted and for future work by both Westinghouse and NRC staff. These are summarized below:

1. Staff noted that Westinghouse's scaling assessment and design code analysis presented for the pre-application review showed that the key phenomena and design intents of the passive cooling systems remained unchanged from AP600. It was agreed that any NRC acceptance of this, based on the limited analysis presented by Westinghouse in support of the pre-application review, was conditional on it being confirmed in the detailed analysis to be supplied with a full application for design certification.

2. Westinghouse agreed to make available their configuration and application control documents for their analysis codes, - e.g. input manuals, safeguards engineering standards or calculational notes as appropriate for deriving their computer codes input, in respect of WGOTHIC, NOTRUMP, LOFTRAN and WCOBRA/TRAC codes.

3. NRC agreed that staff members would audit and evaluate Westinghouse documentation for the control of configuration and application of these codes.

4. Westinghouse will rerun the accident and transient analyses in WCAP-15612 to account for recent design modifications including the redesigned steam generators. In addition, they will perform main steam line break analyses with LOFTRAN. These results will be supplied to NRC and compared with the results from analyses carried out by the NRC staff.

5. It was agreed that as part of NRC's independent assessment of the Westinghouse methodology, various dynamic case study comparisons would be conducted between NRC's RELAP computer analyses and equivalent cases run by Westinghouse using NOTRUMP and LOFTRAN. This comparison is to provide NRC with the information needed to reconcile these codes and to identify and understand any differences in results which are significant to the intended applications. It was agreed that this effort along with the documentation review above could be done during meetings either in Pittsburgh or in Rockville.

6. NRC staff agreed to target completion date of end of July for the code documentation acceptance review and to identify a plan for the conduct of the work in (3) and (5) above. NRC would also formally raise any "requests for additional information" (RAIs) that were appropriate. Westinghouse had already received some RAIs related to the WGOTHIC code and could expect some initial RAIs for other codes by the end of June. Westinghouse agreed to expedite their responses to these requests.

/RA/

Alan C. Rae, AP1000 Project Manager
Future Licensing Organization
Office of Nuclear Reactor Regulation

Project No. 711

Enclosures: As stated

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Attendance List for

Meeting on Code Review for AP1000

9:00 A.M. Session

June 6, 2001

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Attendance List for

Meeting on Code Review for AP1000

1:00 P.M. Session

June 6, 2001

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