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NSD-NRC-96-4793
DCP/NRC0586
Docket No.: STN-52-003

August 23, 1996

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

ATTENTION: T. R. QUAY

SUBJECT: SAMPLE PROBLEM FOR COMPUTER CODE VALIDATION
REGARDING THE CONTAINMENT VESSEL DESIGN FOR THE AP600

REFERENCE: NRC Letter from Jackson to Liparulo dated October 16, 1995, "Sample
Problem For Computer Code Validation Regarding The Containment Vessel
Design For The AP600."

Dear Mr. Quay:

The reference letter transmitted sample problems to be used to validate the Chicago Bridge and Iron Company computer code "E0781" and to thereby resolve the staff's concern of DSER open item 3.8.2.4-8. This letter provides the response to the second of the sample problems. The response for the first problem was provided in Westinghouse letter NSD-NRC-96-4640, dated February 12, 1996.

Enclosed is a copy of the CBI generated letter report entitled, "VERIFICATION OF CBI AXISYMMETRIC SHELL ANALYSIS COMPUTER PROGRAM 'E0781', Problem No. 2 Non-Axisymmetric Loadings," dated August 11, 1996. The report consists of pages 1 through 15. The report provides the basic input information and a summary of the resulting output for the non-axisymmetric pressure case ($n > 0$ harmonic) when executed by CBI, using CBI RISC 6000 equipment and CBI Computer code 'E0781.' This report is based on the use of a slightly different model than the sample problem provided in the reference letter. This approach was agreed in a telecon between Dr. T. Cheng of the NRC staff and Westinghouse's Richard Orr because the model information provided by Ames Laboratories, included unique modeling features at one of the stiffeners and crane girder which could not be incorporated in the CBI computer code. This difference in modeling features is mainly due to the differences in the analytical approaches used within the two programs. The overall results obtained from the two programs should not be significantly different from each other. The alternate is therefore submitted with the understanding that Ames Laboratories can make comparisons against their existing analyses for the internal pressure case.

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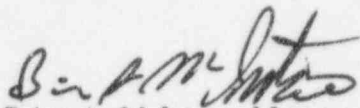
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Submittal of this completes the Westinghouse actions for DSER open item 3.8.2.4-8.

If you have any questions, please contact D. A. Lindgren at (412) 374-4856.



Brian A. McIntyre, Manager
Advanced Plant Safety and Licensing

/nja

Enclosures

cc: D. J. Jackson, NRC
T. Ahl, CBI
T. Cheng, NRC
L. Greisman, Ames Lab
N. J. Liparulo, Westinghouse