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Docket No.: STN-52-003

September 13, 1995

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

Attention: T. R. QUAY

SUBJECT: ASME BOILER AND PRESSURE VESSEL CODE CASE N-284 REVISION 1 FOR USE ON THE AP600

Dear Mr. Quay:

Pursuant to Title 10, Code of Federal Regulations, Paragraph 50.55a(a)(3), this letter is written to request approval of the use of a code case of the ASME Boiler and Pressure Vessel Code for construction of components in a nuclear power facility. The code case for which approval is requested is Revision 1 of N-284, Metal Containment Shell Buckling Design Methods, Section III, Division 1, Class MC. Revision 0 of this code case has been previously endorsed by the NRC in Regulatory Guide 1.84 and for use on the AP600. This code case is used for the design of the containment vessel of the AP600.

Changes between Revision 0 and Revision 1 of the code case include the following:

1. Addition of criteria for bifurcation buckling analysis.
2. Factors for smaller values of M (an index of the relation between length, radius, and thickness).
3. Reformulation of some of the equations for cylinders.
4. Factors added for spherical shells (these were previously noted as in the course of preparation),
5. Notations added for the new criteria.

Although the AP600 containment is a cylindrical shell with ellipsoidal top and bottom heads, the factors for spherical shells are used in the design and analysis of hatch covers.

If you have any questions, please call me at (412) 374-4334.

Brian A. McIntyre, Manager
Advanced Plant Safety and Licensing

/nja

cc: T. Cheng NRC
L. Greimann - ISU Ames Lab

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