



Westinghouse Electric Company
Nuclear Power Plants
P.O. Box 355
Pittsburgh, Pennsylvania 15230-0355
USA

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

Direct tel: 412-374-6206
Direct fax: 412-374-5005
e-mail: sisk1rb@westinghouse.com

Your ref: Docket No. 52-006
Our ref: DCP/NRC2402

March 13, 2009

Subject: AP1000 ASME Code Cases

The ASME Code Cases used in the AP1000 are listed in Table 5.2-3 of Tier 2 of the AP1000 Design Control Document (DCD). Revision 17 of the DCD added the following Code Cases and associated footnote to Table 5.2-3

- N-757 Alternative Rules for Acceptability for Class 2 and 3 Valves, NPS 1 (DN25) and Smaller with Welded and Nonwelded End Connections other than Flanges, Section III, Division 1(d)
- (d) Use of this code case is subject to the condition that the design provisions of ASME Code, Section III, Division I, Appendix XIII not be used for the design of Code Class 3 (ND) valves
- N-759-1 Alternative Rules for Determining Allowable External Pressure and Compressive Stresses for Cylinders, Cones, Spheres, and Formed Heads, Section III, Division 1

These Code Cases are not included in NRC Regulatory Guide 1.84, Revision 34. As required by 10 CFR 50.55a (a)(3) Westinghouse is requesting approval for the use of these ASME Code Cases as proposed alternatives to the rules of 10 CFR 50.55a.

Code Case N-757-1 specifies the use of the alternate rules for the acceptability of Class 2 and 3 valves, NPS 1 (DN25) and smaller with welded and nonwelded end connections other than flanges in the design of small valves. The ASME Code requirements for the design of valves are contained in Articles NC-3500 and ND-3500 for ASME Code Class 2 and 3 valves. The standard design rules in Paragraphs NC-3512 and ND-3512 require that the minimum wall thickness satisfies the thickness requirements specified in the valve standard ASME B16.34, Valves - Flanged, Threaded, and Welding End. Paragraphs NC-3513 and ND-3513 provide alternate design rules that may be used in place of NC-3512 and NC-3512 when permitted by the Design Specification. However, these alternate rules only apply to valves with butt welding end and socket welding end connections. Code Case N-757-1 specifies the use of the alternate design rules for welded and non-welded end connections other than flanges, in the design of small valves. The Code Case N-757-1 provides additional requirements that the valves must meet in order that they meet the design requirements of Section III, Division 1, Class 2 and 3 rules of Paragraphs NC-3512 and ND-3512. These include wall thickness requirements, end connection requirements, such as compression fittings, loadings requirements, and design requirements.

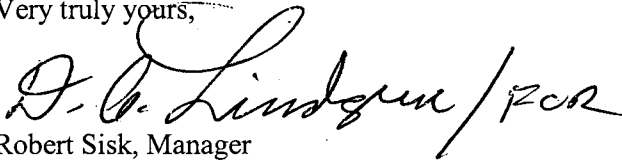
DO63
NRW

Code Case N-759-1 is used to address an issue with the AP1000 primary side depressurization transients. The revised transient requires a different set of criteria for steam generator tube collapse analysis. Code Case N-759-1, provides an alternative methodology for tube collapse analysis based on theoretical buckling equations and buckling tests on fabricated cylindrical tubes.

The information provided in this letter is generic and applies to all COL applicants referencing the AP1000 design certification. The information provided above should permit the NRC to complete its schedule for the review of the AP1000 Design Certification amendment.

Questions related to the content and preparation of this letter should be directed to Westinghouse. Please send copies of such questions or requests to the prospective applicants for combined licenses referencing the AP1000 Design Certification. A representative for each applicant is included on the cc: list of this letter.

Very truly yours,



Robert Sisk, Manager
Licensing and Customer Interface
Regulatory Affairs and Standardization

cc: B. Gleaves - U.S. NRC
E. McKenna - U.S. NRC
D. Jaffe - U.S. NRC
T. Spink - TVA
P. Hastings - Duke Power
R. Kitchen - Progress Energy
A. Monroe - SCANA
J. Wilkinson - Florida Power & Light
C. Pierce - Southern Company
E. Schmiech - Westinghouse
G. Zinke - NuStart/Entergy
R. Grumbir - NuStart
D. Lindgren - Westinghouse
T. C. Andersen - Westinghouse
M.A. Emery - Westinghouse
D. C. Frederick - Westinghouse
T. J. Matty - Westinghouse