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September 8, 2009

Mr. Robert Sisk, Manager  
Licensing and Customer Interface  
Regulatory Affairs and Standardization  
Westinghouse Electric Company  
P.O. Box 355  
Pittsburgh, PA 15230-0355

SUBJECT: SAFETY EVALUATION REPORT WITH OPEN ITEMS FOR CHAPTER 18,  
“HUMAN FACTORS ENGINEERING,” OF NUREG-1793, SUPPLEMENT 2  
– AP1000 DESIGN CERTIFICATION AMENDMENT

Dear Mr. Sisk:

This letter transmits the Safety Evaluation Report with Open Items (SER/OIs) for Chapter 18, “Human Factors Engineering,” of the United States Nuclear Regulatory Commission (NRC) staff’s NUREG-1793, Supplement 2.

By letter dated May 26, 2007, as supplemented by letters dated October 26, November 2, December 12, 2007; January 11 and January 14, 2008; the Westinghouse Electric Company (Westinghouse), submitted an amendment request to the NRC to revise the AP1000 Design Certification (DC) rule per Title 10 of the *Code of Federal Regulations*, Part 52, Section 52.63, “Finality of Standard Design Certifications.” This DC amendment request supports changes to the current AP1000 DC. The current approved DC is based on Revision 15 to the AP1000 DCD. The DC amendment application was supported by submittal of Revision 16 to the AP1000 DCD. By letter dated January 18, 2008, the NRC notified Westinghouse that Westinghouse’s DC Amendment request had been docketed. By letter dated September 22, 2008, Westinghouse submitted Revision 17 to the AP1000 DCD, which contains changes to the DCD proposed in Revision 16, subsequent changes discussed with the NRC staff, and additional changes not previously discussed with the NRC staff referred herein as “new Revision 17 changes.”

Please note that the enclosed Chapter 18 SER/OI addresses the new Revision 17 changes and supersedes the Chapter 18 SER/OI sent to Westinghouse in a letter dated May 12, 2009.

Pursuant to 10 CFR 2.390, we have determined that the enclosed SER/OIs may contain proprietary information or other categories of information that should be withheld from public disclosure. We will delay placing this document in the public document room for a period of 30 days from the date of this letter to provide you with the opportunity to comment on information in the enclosed SER/OIs that should be withheld from public disclosure. If you believe that any information in the enclosure should be withheld from

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public disclosure, please identify such information line by line and define the basis pursuant to the criteria of 10 CFR 2.390. Based on your response, sensitive information will be redacted from the version that will be made publically available. In addition, within 30 days of receipt of this letter, please provide a schedule for response to any Open Items described in the enclosed SER/OIs.

Please note that the letter and the attached enclosure are proprietary. When the letter is detached from the enclosure, the letter becomes non – proprietary.

Please feel free to contact Patrick Donnelly, the Project Manager for Chapter 18, at (301) 415-8584 or Patrick.Donnelly@nrc.gov, with any comments, concerns or questions.

Sincerely,

*/RA/*

Eileen M. McKenna, Branch Chief  
AP1000 Projects Branch 2  
Division of New Reactor Licensing  
Office of New Reactors

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Docket No. 52-006

Enclosure:  
Safety Evaluation Report with Open Items,  
Chapter 18, NUREG-1793, Supplement 2 (Proprietary Information)

cc: See next page (w/o enclosure)

R. Sisk

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Please feel free to contact Patrick Donnelly, the Project Manager for Chapter 18, at (301) 415-8584 or Patrick.Donnelly@nrc.gov, with any comments, concerns or questions.

Sincerely,

*/RA/*

Eileen M. McKenna, Branch Chief  
AP1000 Projects Branch 2  
Division of New Reactor Licensing  
Office of New Reactors

Docket No. 52-006

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Enclosure:  
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Chapter 18, NUREG-1793, Supplement 2 (Proprietary Information)

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(Revised 11/12/2008)

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