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Your ref: Docket No. 52-006
Our ref: DCP_NRC_003009

August 13, 2010

SUBJECT: RESPONSE TO NOTICE OF VIOLATION cited in "NRC INSPECTION REPORT NO. 05200006/2010-202 AND (NOTICE OF VIOLATION) date July 16, 2010

Westinghouse acknowledges receipt of the NRC Inspection Report No. 05200006/2010-202 dated July 16, 2010 and the Notice of Violation. Westinghouse is providing the following response in accordance with the procedure laid out in this inspection report and Notice Of Violation (NOV).

Westinghouse appreciates the focus brought to the commercial dedication activities regarding the test program being conducted at Purdue University in support of the AP1000 Shield Building design; and the constructive feedback and learning gained from the on-site inspection performed by the NRC on May 25-28, 2010. In consideration of NRC comments made both during the inspection and in the exit meeting, Westinghouse immediately initiated corrective actions. These have continued in concert with previously scheduled remedial activities.

Westinghouse is prepared to fully demonstrate its compliance with the provisions of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 21, "Reporting of Defects and Noncompliance," and selected portions of Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities;" and has prepared the following information in response to NRC Inspection Report No. 05200006/2010-202 and (Notice of Violation).

1. NRC Notice of Violation 05200006/2010-202-01

Violation 05200006/2010-202-01 states that, for the test specimen used as part of the in-plane shear test, Westinghouse APP-1208-GQH-001, "Commercial Dedication Instruction," did not identify the appropriate controls to ensure that the critical characteristics for the steel plate and concrete aggregate size had been verified.

Reason for the Violation:

The Commercial Dedication Instruction (CDI) applicable to the test services provided by Purdue University to Westinghouse was not sufficiently detailed to substantiate dedication efforts, and required greater specificity concerning safety function and critical characteristics. The CDI was applied broadly across the test program and relied on several bulk-form references to substantiate test activities.

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Corrective Actions Completed (July 23, 2010):

The CDI applicable to the test activity has been modified from an overall project perspective to a per test/specimen approach, requiring a series of detailed CDIs to be created to support the project. Westinghouse document APP-1208-GQH-001 Rev. 3 provides specific detail regarding the safety function and critical characteristics of applicable elements associated with the in-plane shear testing as well as acceptance criteria, a description of verification methods and a listing of supporting objective evidence.

In addition to the CDI revision, samples of each steel plate used to construct the in-plane test specimen were extracted directly from the actual test specimen for material property certification (chemical composition and strength adequacy). Concrete test cylinders prepared from the actual test specimen pour have been dissected and actual aggregate size measured and documented. Detailed procedures for procurement and receipt inspection have been documented to further support material control activities.

Corrective Actions to Prevent Recurrence:

Please refer to Section 4 of this letter.

2. NRC Notice of Violation 05200006/2010-202-02

Violation 05200006/2010-202-02 states that Westinghouse APP-1208-GQH-001, "Commercial Dedication Instruction," did not verify that the necessary procedures had been developed to assure that all testing required to demonstrate that structures, systems, and components will perform satisfactorily in service were identified and performed in accordance with written test procedures that incorporate the requirements and acceptance limits contained in applicable design documents. Specifically, procedures were not developed for the calibration and installation of the displacement sensors, or for performance of the actual in plane shear test.

Reason for the Violation:

Although project activities were performed with Westinghouse oversight and appeared to be executed in accord with applicable industry standards, protocols used to do so were lacking and/or lacked sufficient detail. Original test program protocols were not developed with intent of supporting safety related use.

Corrective Actions Completed (July 23, 2010):

Westinghouse has collaborated with Purdue University to formally document robust procedures for calibration and test activities, ensuring that the procedures provide adequate detail to support applicable requirements and promote consistent reproducibility.

Corrective Actions to Prevent Recurrence:

Please refer to Section 4 of this letter.

3. NRC Notice of Violation 05200006/2010-202-03

Violation 05200006/2010-202-03 states that Westinghouse APP-1208-GQH-001, "Commercial Dedication Instruction," did not verify that the equipment chosen to measure the applied force to the test specimen was suitable for its intended function. Specifically, equipment was not installed to directly measure the force being applied to the test specimen. There were no load cells installed between the hydraulic actuators and the test specimen, so during the test, a direct measurement of the force being applied by the hydraulic actuators to the test specimen was not obtained. The method utilized to derive the

applied force was from pressure transmitters installed on the input lines to the hydraulic actuators. This method of measuring the applied force relied upon unverified vendor information and did not account for frictional losses within the hydraulic actuators.

Reason for the Violation:

At the time of the inspection, several test related activities including calibration of certain equipment and loss evaluation calculations had not yet taken place, but were scheduled to occur later in the test program. Additionally, Westinghouse document APP-1208-GQH-001, "Commercial Dedication Instruction," lacked sufficient detail regarding characteristics required to demonstrate equipment suitability for its intended safety function.

Corrective Actions Completed (July 20, 2010):

Calibration of the actuators used during the in-plane shear test has been performed and Purdue has provided Westinghouse with a white-paper which details the uncertainty and losses associated with the in-plane test program. Westinghouse document APP-1208-GQH-001, "Commercial Dedication Instruction," has been modified to provide specific detail concerning the safety function of equipment and critical characteristics associated, as well as acceptance criteria, a description of verification methods and a listing of supporting objective evidence.

Corrective Actions to Prevent Recurrence:

Please refer to Section 4 of this letter.

4. Corrective Actions To Prevent Recurrence:

Corrective actions have been executed to resolve any gaps identified during the inspection, and many of those actions also provide the benefit of preventing future occurrences. This includes the revision of Westinghouse document APP-1208-GQH-001, "Commercial Dedication Instruction," to provide specific detail regarding the safety function and critical characteristics of applicable elements associated with the in-plane shear testing as well as acceptance criteria, a description of verification methods and a listing of supporting objective evidence. This detailed document provides a foundation for development of CDIs applicable to future test programs.

Completion of detailed procedures which support a comprehensive approach to material procurement, receipt and traceability, along with full documentation of procedures which provide for consistent performance and reproducibility of laboratory activities, such as calibration and testing, will promote adequacy of future test programs.

To further examine how we may improve future commercial dedication activities, a self-assessment is currently being conducted on the Westinghouse commercial dedication process as applied to the test program conducted at Purdue University, with conclusions to be documented on August 30, 2010. Improvement opportunities identified during the self-assessment shall be formally captured in the Westinghouse Corrective Actions Process (CAPs) system and subsequently addressed.

Additionally, Westinghouse procedure NSNP 11.1 "Test Control," is currently under revision to incorporate stronger guidance and rigor applicable to test programs moving forward. The new revision is expected to be released by August 31, 2010. Training to the procedure is on an "as applicable" basis.

Preventing Future Occurrences

Corrective actions have been executed to resolve any gaps identified during the inspection, and many of those actions also provide the benefit of preventing future occurrences. This includes the completion of detailed procedures which support a comprehensive approach to material procurement, receipt and traceability; and full documentation of procedures which provide for consistent performance and reproducibility of laboratory activities such as calibration and testing.

To further examine how we may improve future commercial dedication activities, a self-assessment is currently being conducted on the Westinghouse commercial dedication process as applied to the test program conducted at Purdue University, with conclusions to be documented on August 30, 2010. Improvement opportunities identified during the self-assessment shall be formally captured in the Westinghouse Corrective Actions Process (CAPs) system and subsequently addressed.

Additionally, Westinghouse procedure NSNP 11.1 "Test Control," is currently under revision to incorporate stronger guidance and rigor applicable to test programs moving forward. The new revision is expected to be released by August 31, 2010. Training to the procedure is on an "as applicable" basis.

Any additional questions related to this response should be addressed to R.B. Sisk, Manager, AP1000 Licensing Manager, Westinghouse Electric Company LLC, 1000 Westinghouse Dr. Suite 115, Cranberry Township, Pennsylvania 16066.

Very truly yours,

for/ John DeBlasio

Robert Sisk, Manager
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