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52-06

March 1, 2011

Subject: Westinghouse Preparation for Engineering Design Verification (EDV) Inspection

In preparation for the completion of the NRC's EDV inspection of the Westinghouse AP1000 design effort, the information contained herein is being provided as a basis for the selection of mechanical systems consistent with NRC INSPECTION PROCEDURE 37805, Engineering Design Verification Inspections, and is a follow up to the meetings between the NRC and Westinghouse on November 18, 2010 and February 15, 2011.

As noted in the above referenced NRC inspection guideline, the objectives of the EDV inspection are as follows:

1. Verify that the design authority (e.g., the organizations contracted by an NRC applicant to provide engineering, procurement, and construction support) has developed processes that allow for the complete and accurate transfer of the high level design information and performance requirements specified in the Final Safety Analysis Report (FSAR) into detailed procedures, specifications, calculations, drawings, procurement, and/or construction documents, in a manner consistent with the requirements of Appendix B to 10 CFR Part 50.

2. Verify that the design authority has developed processes to ensure changes to the design are adequately controlled.

3. Verify, through a detailed technical review of selected systems, that the design authority's implementation of its design and design control processes has produced detailed procedures, specifications, calculations, drawings, procurement, and/or construction documents that are consistent with NRC regulations, the FSAR, and the NRC's Safety Evaluation Report (if issued).

With the submittal of DCD Revision 18, the design for the systems, structures and modules identified below have been "frozen" from a licensing basis perspective. However, design complete in this context means that the initial detailed design is complete for the system. Additional activities to validate the detailed design to actual "as purchased" or "as installed" component level data are not complete and these activities will be incomplete at the time of the inspection.

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The safety related systems, structures and modules identified below meet the design completion criteria set forth in the NRC inspection guideline and may be considered in determining the scope of the EDV Inspection.

Safety Related Systems, Structures and Modules
Containment System (CNS)
Steam Generator System (SGS)
Main Control Room Emergency Habitability System (VES)
Reactor Coolant System (RCS)
Passive Containment Cooling System (PCS)
Passive Core Cooling System (PXS)
Class 1E DC and UPS System (IDS)
Basemat
Auxiliary Building
Containment Internal Structures
CA01 – CA05
CA20
Containment Vessel
Containment Air Baffle
R365 Cask Loading / Fuel Transfer Canal Valve Module
Q223 Direct Vessel Injection (DVI) A Valve Module
Q233 Direct Vessel Injection (DVI) B Valve Module
Q240 Normal Residual Heat Removal Containment Isolation Valve Module
Q305 Containment Isolation Valve Module
KB36 PCS Pump / Valve Module
Q601 RCS Stages 1, 2, 3 ADS Module

Note that all safety related systems, structures and modules mentioned above have some open items which will likely result in revisions to documents associated with each individual system, structure and module.

The safety related systems and structures identified below do not meet design completion criteria set for in the NRC inspection guideline and should not be considered during the selection process of the EDV Inspection. It should also be noted that Westinghouse's implementation of its design and design control processes will produce detailed procedures (including maintenance, operating, and emergency operating procedures). However, these procedures will not be complete prior to the June 2011 EDV inspection date.

Safety Related Systems and Structures
Safety Related Instrumentation and Control (I&C) Systems
Safety Related Piping and Piping Supports
Shield Building

Westinghouse requests the NRC inform us of the system to be included in the scope of the EDV at their earliest convenience, as lead time will be required to arrange for the availability of subject matter experts. As planning for the EDV inspection continues, it is important the NRC and Westinghouse continue to discuss the logistics of the inspection as it pertains to the AP1000 global design team.

The information provided above was discussed in a telecom with the NRC on January 21, 2011 and in a meeting on February 15, 2011. In addition, further dialogue with the NRC is anticipated before the proposed June, 2011 EDV inspection to further discuss, clarify and plan for the inspection on the part of both the NRC and Westinghouse.

If you have further comments or require additional information, please contact Dale Harmon by phone, (412) 374-5933 or email, harmonda@westinghouse.com; or John McInerney by phone, (412) 374-6361, or email, mcinerjj@westinghouse.com.

Sincerely,

Rolf Ziesing
Director, U.S. Licensing

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