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U.S. Nuclear Regulatory Commission
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Your ref: Docket No. 52-006
Our ref: DCP_NRC_002711

December 8, 2009

Subject: AP1000 Response to Request for Additional Information (SRP 9)

Westinghouse is submitting a response to the NRC request for additional information (RAI) on SRP Section 9. This RAI response is submitted in support of the AP1000 Design Certification Amendment Application (Docket No. 52-006). The information included in this response is generic and is expected to apply to all COL applications referencing the AP1000 Design Certification and the AP1000 Design Certification Amendment Application.

Enclosure 1 provides the response for the following RAI(s):

RAI-SRP9.1.5-SBPB-05 R2

Questions or requests for additional information related to the content and preparation of this response 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

/Enclosure

1. Response to Request for Additional Information on SRP Section 9

D063
NRO

cc:	D. Jaffe	-	U.S. NRC	1E
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ENCLOSURE 1

Response to Request for Additional Information on SRP Section 9

AP1000 TECHNICAL REPORT REVIEW

Response to Request For Additional Information (RAI)

RAI Response Number: RAI-SRP9.1.5-SBPB-05
Revision: 2

Question:

SRP 9.1.5 and NUREG 0612 provide guidance that state that safe load paths should be defined for movement of heavy loads to minimize the potential to impact irradiated fuel in the reactor vessel and in the spent fuel pool and safe shutdown equipment. These load paths should be defined in procedures, and shown on equipment layout drawings.

A) Please explain where equipment layout drawings are provided in the DCD that show safe load paths for moving heavy loads
B) A COL Action item should be developed to ensure that the COL applicant will provide procedures that define safe load paths.

Westinghouse Response:

A) These drawings are not provided in the DCD. This information is part of the operational programs and is covered by Section 13.4 of the DCD.

B) Operations programs and procedures are discussed in Sections 13.4 and 13.5 of the DCD respectively. Existing COL Information Items are provided in these sections. No further COL Items are necessary.

Additional Westinghouse Response based on NRC comments at 3/18/09 meeting: (Revision 1)

A COL information item is incorporated stating the COL applicant will provide such a heavy load handling program.

DCD Section 9.1.5 is modified to include the statement "DCD Section 13.5.1 addresses the development of heavy lift safe load paths."

In keeping with the guidance in SRP 9.1.5 and NUREG 0612, DCD Section 13.5.1 is modified to include the statement "The COL Combined License applicants referencing the AP1000 certified design will also provide a heavy load handling program. This program will include safe load paths for movement of heavy loads, to be referenced in procedures and shown on equipment layout drawings. This will minimize the potential to impact irradiated fuel in the reactor vessel and in the spent fuel pool, and safe shutdown equipment, from movement of heavy loads.".

Westinghouse is currently developing drawings identifying safe load paths for the handling of heavy loads. These drawings will be provided to the COL for incorporation into their heavy load handling program.

Additional Westinghouse Response: (Revision 2)

In Revision 0 of this RAI response, text requesting development of a heavy load handling program was provided for insertion in DCD Section 13.5.1. Westinghouse believes that this text is more appropriate in Section 9.1.5 of the DCD.

The Combined License information requested in Section 13.5.1 (Combined License Information Item 13.5-1, "Plant Procedures") has been partially addressed, and the applicable changes are incorporated into the DCD. The development of a Heavy Load Handling Program is considered within the portion of Combined License Information Item 13.5-1 that has not been closed, and does not need development of a separate Combined License Information Item.

Design Control Document (DCD) Revision:

(Revision 0)
Incorporate the following change in DCD Section 9.1.5: (Revision 1, 2)

9.1.5 Overhead Heavy Load Handling Systems

Heavy load handling systems consist of equipment which lift loads whose weight is greater than the combined weight of a single spent fuel assembly and its handling device. This equipment is part of the mechanical handling system (MHS) and is located throughout the plant. The principal equipment is the containment polar crane and the cask handling crane. Other such equipment includes the reactor coolant pump handling machine, bridge cranes, miscellaneous monorail hoists and fixed hoists. Table 9.1-5 lists the heavy load handling systems located in the safety-related areas of the plant, specifically the nuclear island.

For AP1000, a heavy load is a load whose weight is greater than the combined weight of a fuel assembly with rod cluster control, and the associated handling device. This combined weight is about 3100 pounds. Thus, a heavy load is defined as a load weighing more than 3100 pounds.

The COL Combined License applicants referencing the AP1000 certified design will also provide a heavy load handling program description. Implementation of this program will include safe load paths for movement of heavy loads, to be referenced in procedures and shown on equipment layout drawings. This will minimize the potential to impact irradiated fuel in the reactor vessel and in the spent fuel pool, and safe shutdown equipment from movement of heavy loads.

Development of this program is considered within the following portion of Combined License Information Item 13.5-1, "Plant Procedures," and does not require a separate Combined License Information Item:

The Combined Operating License applicant will address Operational and Maintenance Programmatic issues, as well as training in the AP1000 COL licensing process.

Remove the change in DCD Section 13.5.1 inserted in Revision 1 of this response, leaving no net change in that section.

PRA Revision:
None

Technical Report (TR) Revision:
None