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Your ref: Docket No. 52-006
Our ref: DCP/NRC2337

January 7, 2009

Subject: AP1000 Response to Request for Additional Information (SRP 11)

Westinghouse is submitting a response to the NRC request for additional information (RAI) on SRP Section 11. This RAI response is submitted in support of the AP1000 Design Certification Amendment Application (Docket No. 52-006). The information included in the 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:

RAI-SRP11.3-CHPB-01

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,

A handwritten signature in black ink, appearing to read 'Robert Sisk'.

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

/Enclosure

1. Response to Request for Additional Information on SRP Section 11

cc: D. Jaffe - U.S. NRC 1E
E. McKenna - U.S. NRC 1E
S. Sanders - U.S. NRC 1E
P. Ray - TVA 1E
P. Hastings - Duke Power 1E
R. Kitchen - Progress Energy 1E
A. Monroe - SCANA 1E
P. Jacobs - Florida Power & Light 1E
C. Pierce - Southern Company 1E
E. Schmiech - Westinghouse 1E
G. Zinke - NuStart/Entergy 1E
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ENCLOSURE 1

Response to Request for Additional Information on SRP Section 11

AP1000 TECHNICAL REPORT REVIEW

Response to Request For Additional Information (RAI)

RAI Response Number: RAI-SRP11.3-CHPB-01

Revision: 0

Question:

The dose estimation in section 11.3.3.4, Estimated Doses, is incomplete. Table 1 in Regulatory Guide 1.109 requires the calculation of following doses from releases to the atmosphere to demonstrate compliance with the design objectives of 10 CFR 50 Appendix I, sections II.B and II.C:

- beta and gamma air exposures from noble gases
- total body and skin doses from noble gases
- organ doses from radioiodines and particulates

In order to satisfy the requirements of Appendix I, please provide an analysis demonstrating compliance to the total body and skin dose criteria for noble gases and organ dose criteria for radioiodines and particulates. Please incorporate this analysis into the DCD and also include a statement that the COL applicant must perform individual dose calculations as well, given plant and site specific conditions. The applicant must also provide sufficient details for the staff to perform an independent confirmatory analysis.

In order for the staff to state that they comply with GD 60 and SRP section 11.3 acceptance criteria we need a complete analysis of doses including doses to air from noble gases, doses to total body and skin from noble gases and organ doses from iodine and particles. This change is necessary under 10 CFR 52.63 in order to provide adequate protection of the public health and safety and to completely comply with 10 CFR 50 Appendix I, section II.B. and II.C.

Westinghouse Response:

These evaluations are substantially site specific and so are being done by our COLA applicants in accordance with 10 CFR 50, Appendix I. See for example the Bellefonte FSAR (Ref. 1) Section 11.3.3.4 for beta and gamma radiation doses and Table 11.3-203 for total body, skin, and organ doses. To the extent that the DCD must reiterate requirements from 10 CFR 50, Section 11.3.3.4 of the DCD will be modified to include the statement: "The Combined License applicant will also provide an analysis to demonstrate compliance with individual dose limits to members of the public in accordance with 10 CFR 50, Appendix I Section II.B and II.C." See DCD mark-up below.

Reference(s):

1. Bellefonte Units 3 & 4 COLA (Final Safety Analysis Report), Rev. 0

AP1000 TECHNICAL REPORT REVIEW

Response to Request For Additional Information (RAI)

Design Control Document (DCD) Revision:

11.3.5.1 Cost Benefit Analysis of Population Doses

The analysis performed to determine offsite dose due to gaseous effluents is based upon the AP1000 generic site parameters included in Chapter 1 and Tables 11.3-1, 11.3-2 and 11.3-4. The Combined License applicant will provide a site specific cost-benefit analysis to demonstrate compliance with 10 CFR 50, Appendix I, regarding population doses due to gaseous effluents.

The Combined License applicant will also provide an analysis to demonstrate compliance with individual dose limits to members of the public in accordance with 10 CFR 50, Appendix I Section II.B and II.C.

11.3.5.2 Identification of Adsorbent Media

PRA Revision:

None

Technical Report (TR) Revision:

None