



Westinghouse
Electric Corporation

Energy Systems

Box 355
Pittsburgh Pennsylvania 15230-0355

NSD-NRC-97-5120
DCP/NRC0858
Docket No.: STN-52-003

June 5, 1997

Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555

ATTENTION: T. R. QUAY

SUBJECT: SITE INTERFACE RAIs

Dear Mr. Quay:

Attached are responses to requests for additional information 231.40, 231.41, and 231.42 related to site parameters transmitted by your letter dated April 25, 1997. A markup of the SSAR revisions discussed in the responses were included in our letter of June 3, 1997, (DCP/NRC0895) and will be provided in Revision 13 of the AP600 SSAR.

These responses and the changes submitted in Revision 12 of the SSAR reflect comments discussed at the senior management meeting on March 3, 1997. The responses and Revisions 12 and 13 of the SSAR are consistent with the site evaluation approach recently certified by the NRC for another ALWR design and with NRC senior management comments at the March 3, 1997 meeting that the various ALWR design certifications should be consistent. Site interface criteria for application of the certified design at sites that are not bounded by the design certification sites parameters are included in the Final Safety Evaluation Report, safety analysis report and design control document of a recently certified ALWR design. As was discussed on March 3, 1997, this approach is also appropriate for AP600.

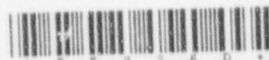
Limiting application of the AP600 strictly to only sites bounded by the site parameters could eliminate safe and otherwise acceptable sites. The inclusion of site interface criteria for sites not bounded by site parameters provides a degree of certainty for the combined license applicant by providing a definitive site criteria and at the same time provides the NRC staff with the approach they would apply to the review of the application of an AP600 to sites that are not bounded by the AP600 site parameters. This is appropriate material to include in the AP600 design control document, as it was in the recently certified ALWR.

9706090262 970605
PDR ADOCK 05200003
E PDR

3191A.wpf

000052

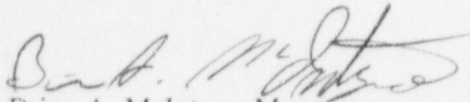
EDDY
1/1



June 5, 1997

In two of the requests for additional information the staff noted that portions of the SSAR were not acceptable or unacceptable without being specific about what was unacceptable. Our response is based on inferring from the context of the comments what the staff found objectionable.

If you have any questions please contact Donald A. Lindgren at (412) 374-4856.



Brian A. McIntyre, Manager
Advanced Plant Safety and Licensing

jml

Attachment

cc: D. T. Jackson - NRC (w/Attachment)
N. J. Liparulo - Westinghouse (w/o Attachment)

**RAI# 231.40**

Section 2.5.4.5.5 (page 2-16) of the SSAR (revised after Revision 11) states that for sites with soil characteristics outside the range considered in Appendices 2A.2, and 2B.2, the COL applicant may use the site-specific soil conditions and site-specific SSE, and perform site-specific SSI analyses, and demonstrate acceptability (of the site) by comparing the floor response spectra at specified locations. A similar statement permitting the COL applicant to perform a site-specific seismic analysis of the nuclear island is made in Section 2.5.4.5.2.2 (Acceptance criteria for non-uniform sites). The proposed revision is not acceptable to the staff. The SSAR should state that such sites are not covered by the certified design. This is RAI #231.40 in SSAR 2.5.4.5.

Westinghouse Response

The provisions for qualifying sites using site-specific seismic analyses has been removed from 2.5.4.5.5 and placed in 2.5.2.2 in Revision 12. The first sentence of subsection 2.5.2.2 identifies that it is for sites that are not bounded by the site parameters in Table 2-1. Subsection 2.5.2.2 includes a requirement that evaluations using the alternate design basis be submitted as part of the Combined License application. A review of the site evaluation using the alternate design basis would be required as part of the review of the Combined License application by the NRC staff.

The process outlined in subsection 2.5.2.2 is an acceptable approach since it follows the precedent for qualification of ALWR sites established in the System 80+ Safety Analysis Report, Final Safety Evaluation Report, and design control document. No revision of 2.5.2.2 is required for this issue.

The acceptance criteria for nonuniform sites that is located in 2.5.4.5.2.2 in Revision 12 includes evaluation methods that are part of design certification as well as discussion of evaluation of sites that are excluded from design certification. The SSAR subsection containing the criteria will be revised to clarify what is covered by design certification. Subsection 2.5.4.5.3 of SSAR Revision 13 includes criteria for sites that are acceptable based on evaluations completed for design certification. Subsection 2.5.4.5.3.1 provides methods and criteria for evaluation that must be reviewed as part of the combined license application.



RAI# 231.41

Table 2-1 (page 2-19) of draft Revision 12 must be revised to state that SSE site parameter is 0.30g PGA, except that shallow soil sites are excluded. Also, include a COL requirement for excluding shallow soil sites in Section 2.5.2.1 of SSAR.

Westinghouse Response

Table 2-1 includes the site parameter of 0.30g peak ground acceleration for SSE. Under the heading of Soil in Table 2-1 the requirement for a shear wave velocity greater than or equal to 1000 ft/sec excludes shallow soil sites. Subsections 2.5.4.5.1 and 2.5.4.5.2 require that the Combined License applicant address underlying site conditions, geologic features, and static and dynamic engineering properties of the foundation soils and rocks. These requirements along with the site parameter for shear wave velocity in Table 2-1 are sufficient to identify whether a site is a shallow soil site. An additional Combined License information item is not required. No change to the SSAR is required for this item.



RAI# 231.42

Figure 2.5-1 (page 2-23) of draft Revision 12 must be deleted or revised. Presumed margins are not included in site parameters. Also Section 2.5.2.2 of the SSAR must be revised. The review criteria are unacceptable.

Westinghouse Response

The process shown in Figure 2.5-1 and the criteria established in subsection 2.5.2.2 are based on the precedent for qualification of ALWR sites established in the System 80+ SAR, FSER, and design control document. Based on that precedent the process and criteria are acceptable. The design basis outlined in subsection 2.5.2.2 defines alternate interface criteria to determine if the AP600 can be located at a site that does not meet the site parameters related to soil structure. The evaluation of the site using the alternate interface criteria is part of the Combined License application for sites that are not bounded by the site parameters. No SSAR revision is required for subsection 2.5.2.2.

Figure 2.5-1 will be revised to clarify the portion of the chart that is applicable for a site that satisfies the site parameters and the portion that is applicable for alternate design basis outlined in subsection 2.5.2.2. This figure is similar to Figure 2.5-38 in the System 80+ safety analysis report.