

December 7, 2006

MEMORANDUM TO: Douglas W. Weaver, Chief  
Guidance, Infrastructure, and Financial Review Branch  
Division of New Reactor Licensing  
Office of New Reactors

FROM: Patrick L. Hiland, Director  
Division of Engineering /RA/  
Office of Nuclear Reactor Regulation

SUBJECT: TRANSMITTAL OF PROPOSED REVISION TO STANDARD REVIEW  
PLAN NUREG-0800 SECTIONS 9.5.3, 8.2, AND APPENDIX 8B.

The purpose of this memorandum is to transmit the proposed revisions to NUREG-0800, Standard Review Plan (SRP), Section 9.5.3, Rev. 3, "Lighting Systems," Section 8.2, Rev. 4, "Offsite Power System," and Appendix 8B, Rev. 1, "General Agenda, Station Site Visits." These documents are technically complete, reformatted in conformance with LIC-200, and may be designated "publically available."

In accordance with the staff requirements memorandum dated May 10, 2005, on the April 6, 2005 Commission meeting, the Office of Nuclear Reactor Regulation (NRR) has revised SRP Sections 9.5.3, 8.2, and Appendix 8B (Enclosures). The revised technical portions of the SRP sections have been highlighted to aid in identifying the technical information that has been added or revised.

The present revision updates the July 1981 Revision 2 for Section 9.5.3; July 1983, Revision 3 for Section 8.2; and July 1981, Revision 0 for Appendix 8B. Changes introduced in the 1996 draft have been affirmed and are included in this revision.

Several specific changes from the 2006 update are worth noting:

#### Section 9.5.3

1. Adds a review of the lighting failure analysis in the specific areas of review for consistency with Regulatory Guide 1.70 and DG -1145 requirements.
2. Updates reference to NUREG-0700 Revision 2 "Human-System Interface Design Review Guidelines," published in May, 2002.

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Section 8.2

1. Adds review requirements to include staff positions regarding 10 CFR 50.63 to provide alternate power source to the non-safety loads for evolutionary ALWR designs as discussed in SECY-91-078 and for passive reactor designs as discussed in NUREG-1793.
2. Adds review requirements to incorporate grid reliability considerations, contingency analysis and procedures, and communications interfaces with the offsite transmission system operator based on GL 2006-02 and clarifications presented in SECY-05-0219.
3. Updates acceptance criteria and review requirements to incorporate power system modeling and analysis for the plant distribution system based on the guidance of GL 2006-02, DG-1145, and current industry standards.
4. Enhances the acceptance criteria and review procedures to incorporate the requirements of the Maintenance Rule, 10 CFR 50.65(a)(4), and the guidance of RG's 1.160 and 1.182 to assess and manage risk before maintenance activities on onsite ac power SSC's.

Appendix 8B

1. Adds a site visit agenda item under the "Cable Runs and Cable Spreading Area" category for safety-related cable locations susceptible to submergence.
2. Adds a site visit agenda item under the "Vital Instrumentation Power Supply Installation" category for grounding and EMI/RFI protection.

Additional changes are summarized at the end of the SRP sections revision.

In addition, this revision has been administratively updated in accordance with NRR Office Instruction, LIC-200, Standard Review Plan Process. The administrative update is comprised of assigning the review responsibilities by function, with the responsible organizations maintained separately from the SRP itself to minimize impacts of office reorganizations, and editorial and formatting changes. The revision also adds standard paragraphs to extend application of the updated SRP sections to prospective submittals by applicants pursuant to 10 CFR Part 52.

The staff has determined that the changes do not involve any new staff positions. I understand that most of the SRP sections will be issued as final versions without publishing them as draft and requesting comment. The staff is revising the SRP in this manner to provide a more up-to-date SRP in light of the requirement in 10 CFR 50.34(h) for an applicant to evaluate its facility against the SRP revision in effect six months before the docket date of the application. In addition, this memo and its enclosures will be made publicly available as preliminary SRP sections revision. It will be formally published following reconciliation against the ongoing Part 52 rulemaking and regulatory guide updates including DG-1145, "Combined License

Applications for Nuclear Power Plants (LWR Edition).” After formal issuance, the SRP will be available for public comment. Comment resolution will be addressed in subsequent SRP revisions. Prior to revision to individual sections, comment resolution may establish a basis for how alternatives to the NUREG-0800 acceptance criteria provide an acceptable method of complying with the NRC's regulations.

For questions concerning this document, please contact Amar Pal at 301-415-2760.

Enclosures:

As stated