

Strategic Teaming and Resource Sharing

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Rules and Directives Branch Office of Administration U.S. Nuclear Regulatory Commission Washington, DC 20555-0001

STRATEGIC TEAMING AND RESOURCE SHARING (STARS) COMMENTS ON DRAFT REGULATORY GUIDE DG-1113, "METHODS AND ASSUMPTIONS FOR EVALUATING RADIOLOGICAL CONSEQUENCES OF **DESIGN BASIS ACCIDENTS AT LIGHT-WATER NUCLEAR POWER REACTORS"**

Docket Number: PRM-50-74

Gentlemen:

Attached are comments from the Strategic Teaming and Resource Sharing (STARS)¹ nuclear power plants on the subject draft regulatory guide issued in January 2002. The STARS plants appreciate the opportunity to comment on the draft guide. If there are any questions regarding these comments, please contact me at 254-897-6887 or dwoodla1@txu.com.

Sincerely,

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D. R. Woodlan, Chairman Integrated Regulatory Affairs Group STARS

Attachment: STARS Comments on DG-1113

Template = ADM-013

E-RIDS=ADH-C ade = H. Beranck (HFB) W. M. Blumberg (WMB1) Palo Verde

South Texas Project

Wolf Creek

Callaway .

¹ STARS consists of six plants operated by TXU Generation Company LP, AmerenUE, Wolf Creek Nuclear Operating Corporation, Pacific Gas and Electric Company, STP Nuclear Operating Company and Arizona Public Service Company.

STARS COMMENTS ON DG-1113

	Section of DG-1113	Comment	Proposed resolution
1	General	The Draft Guide is an attempt at gathering the various requirements for the radiological analyses, which are currently scattered among various Regulatory Guides and Standard Review Plan sections, into one, coherent, document. This should have direct benefits to both the Staff and the utilities in the form of more efficient submittal preparation and reviews. The Staff should be supported in this goal.	N/A
2	General	The Guide should specify that a licensee may implement parts of the guide as is convenient (e.g., use the LOCA model but not have to change its SGTR analysis at the same time). More specifically, licensees should be able to implement the ICRP-30 dose conversion factors (Position 4.1) and the Control Room (Dose) Acceptance Criteria (Position 4.5) immediately, and without a submittal to the NRC.	Same as comment
2a	General	According to the NRC Regulatory Issue Summary 2001-19: For Deficiencies in the Documentation of Design Basis Radiological Analysis that are submitted in conjunction with License Amendment Requests, the NRC staff indicates that they consider thyroid dose conversion factors based on ICRP-30, such as those tabulated in Federal Guidance Report 11, to be an acceptable change in methodology that does not warrant prior review. (comment similar to #2 above)	The same position should be reiterated in this regulatory guide.
3	Discussion	Page 3, 2nd paragraph, states that the guidance in this regulatory guide will be used in conjunction with proposed DG-1114. DG-1114 was not issued until late March 2002. Sufficient time has not been available to review and comment on the impact of DG-1114 on DG-1113.	Comments on DG-1114 (to be provided later) may reference information in DG-1113. Comments on DG-1113 should be considered by the NRC up to June 28, 2002, which coincides which the requested date for comments on DG-1114.

4	Regulatory Position 2, Dose Analysis Models	This section does not specifically address the activity due to decay of parent isotopes that are in the radioactive cloud and those that have been deposited on components within the CR boundary. Also this section does not mention shine dose from filters, containment, and external radioactive cloud. The reader has to get to Regulatory Position 4.2 before the contribution from external shine is mentioned.	Make appropriate reference to the information in Regulatory Position 4.2.
5	Regulatory Position 3.3, Timing of Release Phases	This section states that for LOCA DBAs, the core activity is assumed to be immediately released from the containment.	A statement should be added to acknowledge the treatment of releases from an on-going containment purge. This dose component is correctly addressed in section 2.8 of Appendix A.
6	Regulatory Position 4.5	This section limits the beta or skin dose to 30 rem without an allowance to exceed 30 rem but not 75 rem if PPE is provided to CR occupants (e.g. PCs and eye protection).	This is a provision in the Standard Review Plan Section 6.4 that should be retained.
7	Section D. Implementat ion	This section is not clear. Does it mean for any license amendment or license renewal etc., the NRC staff will evaluate the licensee documents with this regulatory guide?	License amendments should be reviewed against the licensee's current licensing bases. Replace second paragraph with the following "This guide will be used to evaluate submittals voluntarily initiated by operating reactor licensees who propose modifications that go beyond the current licensing basis if there is a clear connection between the proposed modifications and this guidance."
7a	Appendix B, Section 2	Water Depth: The effective decontamination factor (DF) of 200 seems to be derived from the respective DF of 500 and 1 for the elemental and organic species.	For modeling purpose, it would be more straightforward and useful to state that the DFs for the elemental and organic species may be assumed to be 500 and 1, respectively, giving an overall effective DF of 200

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8	Appendix B, Section 3	This section states that particulate radionuclides have an infinite DF in water. It is not clear if this applies to particulates in the noble gas species only or for particulates of all species. Furthermore, there is no guidance to as to what fraction of species released is of particulate form.	Clarify
8a	Appendix B, Section 3	The second sentence in Section 3, Noble Gases, referring to particulate radionuclides, does not seem to belong to this section.	Recommend relocation of this sentence to the end of Section 2.
8b	Appendix B, Section 3.2	Release Fractions:	For non-LOCA DBAs when fuel melt is postulated, the core inventory release fractions, by radionuclide group, should be referring to Table 1 (instead of Table 2) for BWRs and PWRs.
9	Appendix B, Section 5.3 and Footnote 3	The footnote acknowledges that many plants' Technical Specifications include administrative controls to close the personnel airlock or equipment hatch if they allow the containment to be open during fuel movement. Yet the last sentence of the footnote indicates that the manual actions to close the containment after a fuel handling accident should not be credited in the radiological analyses. The footnote has the effect of preventing any such Technical Specification changes in the future for plants that do not have the administrative controls. It also seems to invalidate the Licensing Bases of plants that currently have such controls and include credit for manual closure.	The Staff should provide a reason why credit for administrative controls to manually close airlocks, hatches, etc., are not generally acceptable. If the Staff has explicit requirements on acceptable admin controls, such requirements should be stated. Alternately, the footnote should be reworded to acknowledge that plants with this admin control and which take credit for manual closure do not have to reanalyze the accident and resubmit a Tech Spec change. Also, it should state that plants with such admin controls that take credit for manual closure may continue to take credit for manual closure in future Technical Specification changes.

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10	Appendix H, Section 2.2	This section establishes the containment leak rate assumption for the Rod Ejection accident.	It seems that it would be appropriate to reduce this rate from that assumed for the LB LOCA, as the peak containment pressure will be much less severe in the case of a rod ejection vs. that from a double-ended pipe break.
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