Mitsubishi Nuclear Energy Systems/Talisman-International Review of Interim Staff Guidance on Evaluation and Acceptance Criteria for 10 CFR 20.1406 to Support Design Certification and Combined License Applications

Introduction

NEI has asked industry representatives to review NRC's draft Interim Staff Guidance, ISG DC/COL-ISG-06, "Interim Staff Guidance on Evaluation and Acceptance Criteria for 10 CFR 20.1406 to Support Design Certification and Combined License Applications." This document provides NEI with review comments from Mitsubishi Nuclear Energy Systems (MNES)/Talisman-International.

Review Comments

The draft ISG consists of three sections; a narrative of four pages, an Attachment of three pages and Table 1, containing three pages. The narrative section is very similar to the version that MNES/Talisman reviewed in September 2008. The Attachment and Table 1 are new.

Our comments address the three sections separately. We do offer the general comment that NRC should review the document carefully to remove errata and to ensure that pagination and section headings are correct.

Narrative

This section has not changed significantly since MNES and Talisman reviewed it in September 2008. At that time we offered two substantive comments. Because they also apply to the present draft, we are providing them again.

First, we believe NRC wants applicants to describe their existing design features that minimize contamination and radioactive waste generation, and to discuss the operational programs that, together with these design features, will ensure that contamination and radioactive waste generation are minimized. We are concerned that this guidance could be interpreted differently, to mean that applicants should demonstrate that their systems have been designed to minimize contamination and radioactive waste generation to the extent practical. Because we believe such an interpretation could have a significant impact on reactor designs now under review by NRC, we recommend that the guidance clearly state NRC's intent. We suggest the changes shown below to the last sentence on Page 2, Paragraph 3, and to Page 3, Acceptance Criteria, fifth bullet, to reflect this comment.

Page 2, Paragraph 3, Last sentence:

> Where appropriate to the type of SSC being considered, the applicant should explicitly describe how these considerations ~~have been applied to~~ are addressed in the design and operation of the SSC.

Page 3, Acceptance Criteria, Bullet 5:

> Design features ~~to~~ that facilitate decommissioning should be included, and their role in the decommissioning process should be described.

Second, the last sentence in Page 2, Paragraph 5, states 'Alternative methods may be acceptable to meet the criteria of 10 CFR 20.1406 provided the methods are documented fully in the DC or the COL applications.' It's not clear from the text whether NRC means alternative methods to RG 4.21 or alternative methods to the use of the entire list in Appendix A. We believe NRC means alternatives to RG 4.21, so we have suggested that insert in the markup. The sentence would then read

> Alternative methods to RG 4.21 may be acceptable to meet the criteria of 10 CFR 20.1406 provided the methods are documented fully in the DC or the COL applications.

We have not identified any additional substantive comments on the current draft of the Narrative

Attachment

We found this section of the ISG to be generally reasonable. We do recommend a change to the last sentence in the paragraph at the beginning of Page 3. This paragraph now reads

> The list below provides examples of typical SSCs that typically have a potential to release radioactive material to the facility, site, or environment. Additional operating experience is provided as background information. This list is provided as examples and is not intended to be used as all inclusive.

We recommend revising the last sentence to make it more like the second sentence in Appendix A of RG 4.21. The paragraph would then read

> The list below provides examples of typical SSCs that typically have a potential to release radioactive material to the facility, site, or environment. Additional operating experience is provided as background information. ~~This list is provided as examples and is not intended to be used as all inclusive.~~ This list is not intended to be complete and comprehensive, nor is it intended to be a checklist of minimally acceptable facility design features.

This change will make it clear to the reviewer that the applicant is not required to address all of the items in the list that follows the paragraph.

Table 1

This table provides SSCs of concern to the NRC as well as the occurrences that caused the NRC to be concerned and the problems associated with each occurrence. This is a useful addition to the ISG because it will help applicants identify SSCs of particular interest to the NRC. However, in some cases the occurrences and problems are stated very briefly. We recommend providing a reference for each occurrence so that applicants can learn more about it.