

PMSTPCOL PEmails

From: Tai, Tom
Sent: Wednesday, August 17, 2011 4:53 PM
To: Price, John E
Cc: STPCOL; Dehmel, Jean-Claude
Subject: STP - RWB Classification Comments

John,

Based on excerpts from documents U7-RWB-S-GDD-6001 and 2008-09734, we have the following preliminary comments. RAI 5991 has been issued in Letter 384 on the same subject (provide background document to justify RWB classification of IIb in accordance with RG 1.143) for NINA action.

Comments:

1. The use of an SRP 11.2, BTP 11-6 consequence analysis of radwaste tank failures is not appropriate since the assessment addresses offsite impacts for someone assumed to consume/use ground or surface water, either directly (drinking) or indirectly (ingredient in food products or for livestock watering). BTP 11-6 is clear on this and as well as the type of radiological analysis that need to be performed.
2. RG 1.143 addresses itself to doses for someone located in the unprotected area and for plant workers. RG 1.143, Reg. Position C.5 and Fig. 1 are clear on this.
3. The acceptance criteria are different: BTP 11-6 applies Part 20, App. B liquid ECLs for members of the public. RG 1.143 applies a dose of 500 mrem for someone located in the unprotected area and 5 rem for workers.
4. The development of the radioactive source terms are different: BTP 11-6 focuses on a single tank with the development of the maximum expected radioactivity inventory for the selected system. RG 1.143 is for the LWMS, GWMS, and SWMS with the maximum expected inventory of radioactive materials and comparing that inventory to A₁ and A₂ quantities (Part 71, App. A) in determining whether the RWB structure and RWMS or components are RW-IIa, RW-IIb, or RW-IIc. RG 1.143, Reg. Positions C.5 and C.6 and Fig. 2 flowchart are clear on this.
5. With respect to RG 1.206, Part I, C.I.3 and SRP Sections 3.2.2 and 3.8.4:

RG 1.206, Section 3.2.1. states:

“The applicant should identify the radioactive waste management SSCs that require seismic design considerations and discuss differences from the recommendations of RG 1.143.”

RG 1.206, Section 3.2.2 states:

“The applicant should indicate the extent to which it has followed the recommendations of RG 1.26, RG 1.143, and RG 1.151. The applicant should identify any differences between the recommendations and its application and justify each proposed quality group classification in terms of the reliance placed on those systems that perform any of the following functions:

- (1) prevent or mitigate the consequences of accidents and malfunctions originating within the*
- (2) permit reactor shutdown and maintenance in the safe shutdown condition*
- (3) contain radioactive material*

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For such systems, the applicant should specify the proposed design features and measures that it would apply to attain a quality level equivalent to the level of the RG 1.26, RG 1.143 and RG 1.151 classifications (as applicable), including the QA programs that would be implemented.”

- 6. SRP Section 3.8.4 identifies RG 1.143 as an applicable acceptance criteria in evaluating other structures and not SRP 11.2, BTP 11-6.**

Regards

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