

PMTurkeyCOLPEm Resource

From: Comar, Manny
Sent: Tuesday, June 21, 2011 2:12 PM
To: orthen, Richard; Raymond Burski; Steve Franzone; STEVEN.HAMRICK; TurkeyCOL Resource; William Maher; Maria Morell; Russell Shearer
Cc: Comar, Manny
Subject: Draft RAI 5653 related to SRP Section 02.02.3 -Evaluation of Potential Accidents for the Turkey Point Units 6 and 7 combined license application.
Attachments: draft RAI 5653_TPN.doc

To All,

Attached is the draft of RAI No:5653, regarding SRP Section: 02.02.03 - Evaluation of Potential Accidents for the Turkey Point Units 6 and 7 combined license application.

If you need a conference call to discuss the question(s) of the draft RAIs please contact me at 301-415-3863. Unless you request additional clarification we will normally issue the RAI as final within 3 to 5 days, from today.

Thanks

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Request for Additional Information No. 5653

Turkey Point Units 6 and 7
Florida P and L
Docket No. 52-040 and 52-041
SRP Section: 02.02.03 - Evaluation of Potential Accidents
Application Section: 2.2.3

QUESTIONS from Siting and Accident Conseq Branch (RSAC)

02.02.03-***

Pursuant to 10 CFR sections 52.79(a)(1)(iv) and 52.79(a)(1)(vi), a COL application must contain a final safety analysis report (FSAR) that shall include, among other things, the location and description of any nearby industrial, military, or transportation facilities and routes, and a description and safety assessment of the site on which the facility is to be located, including site characteristics that comply with site criteria in 10 CFR 100. With respect to onsite or offsite storage of hazardous chemicals, guidance on these regulations is provided in RG 1.206, Section C.I.2.2.3, "Evaluation of Potential Accidents," which states that applicants should determine, on the basis of information provided in FSAR Sections 2.2.1 and 2.2.2, the potential accidents to be considered as design basis accidents and identify the potential effects of those accidents on the nuclear plant in terms of design parameters or physical phenomena. For COL applicants referencing the AP1000 DCD, COL information item 2.2-1 states, among other things, that COL applicants referencing the AP1000 certified design will provide site-specific information related to the identification of potential hazards within the site vicinity. Safe distances for material in onsite storage facilities that are part of the standard design are included in AP1000 DCD Table 2.2-1, and COL applicants are expected to verify that the locations and size of the storage facilities are consistent with the safe distances defined by the AP1000 certified design.

The staff requests the following additional information regarding PTN COL FSAR Section 2.2.3.

- a. Revise the COL FSAR to include an explanation of how safe separation distances for standard chemicals listed in AP1000 DCD Table 2.2-1 are met at the PTN site.
- b. COL FSAR Table 2.2-202 lists a hydrogen gas inventory of one 40,000 standard cubic feet tube trailer located in the PGS area for Units 6 & 7. Footnote (a) of COL FSAR Table 2.2 -213, "Design Basis Events – Explosions" states that simultaneous detonation of all the tubes in the tube trailer "is not a likely scenario." The applicant explains that it assumed that one-third of the tubes could rupture, which yields a safe distance of 544 feet, as compared to a distance of 560 feet to the nearest safety-related structure, which leaves a margin of 16 feet. As stated in the AP1000 DCD, Section 2.2, "The determination of the probability of occurrence of potential accidents which could have severe consequences will be based on analyses of available statistical data on the occurrence of the accident together with analyses of the effects of the accident on the plant's safety-related structures and components." Justify why there is an acceptably low probability of occurrence of an accident ($< 10^{-6}$ probability of occurrence per year) which involves simultaneous rupture of more than one-third of the tubes, detonation of the hydrogen gas, and a radiological dose in excess of the limits in 10 CFR 50.34(a)(1). Revise the COL FSAR, as appropriate.

