

PMTurkeyCOLPEm Resource

From: Comar, Manny
Sent: Wednesday, May 20, 2015 4:50 PM
To: orthen, Richard; Raymond Burski; Steve Franzone; STEVEN.HAMRICK; TurkeyCOL Resource; William Maher
Cc: Comar, Manny; Segala, John; Burkhart, Lawrence
Subject: Draft RAI 7091 related to SRP Section 11.02.03 - Liquid Waste Management Systems Important to Safety for the Turkey Point Units 6 and 7 combined license application.
Attachments: draft RAI 7908_TPN.docx

To All,

Attached is the draft of RAI No:7908, regarding section11.02.03 Liquid Waste Management Systems 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

Manny Comar
Senior Project Manager
Nuclear Regulatory Commission
Office of New Reactors
301-415-3863
Manny.comar@nrc.gov

Hearing Identifier: TurkeyPoint_COL_Public
Email Number: 1011

Mail Envelope Properties (377CB97DD54F0F4FAAC7E9FD88BCA6D0021E7B48D390)

Subject: Draft RAI 7091 related to SRP Section 11.02.03 - Liquid Waste Management Systems Important to Safety for the Turkey Point Units 6 and 7 combined license application.
Sent Date: 5/20/2015 4:49:31 PM
Received Date: 5/20/2015 4:49:33 PM
From: Comar, Manny

Created By: Manny.Comar@nrc.gov

Recipients:

"Comar, Manny" <Manny.Comar@nrc.gov>
Tracking Status: None
"Segala, John" <John.Segala@nrc.gov>
Tracking Status: None
"Burkhart, Lawrence" <Lawrence.Burkhart@nrc.gov>
Tracking Status: None
"orthen, Richard" <richard.orthen@fpl.com>
Tracking Status: None
"Raymond Burski" <raymond.burski@fpl.com>
Tracking Status: None
"Steve Franzone" <steve.Franzone@fpl.com>
Tracking Status: None
"STEVEN.HAMRICK" <steven.hamrick@fpl.com>
Tracking Status: None
"TurkeyCOL Resource" <TurkeyCOL.Resource@nrc.gov>
Tracking Status: None
"William Maher" <William.maher@fpl.com>
Tracking Status: None

Post Office: HQCLSTR01.nrc.gov

Files	Size	Date & Time
MESSAGE	584	5/20/2015 4:49:33 PM
draft RAI 7908_TPN.docx		30624

Options

Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

Request for Additional Information

Issue Date:

Application Title: Turkey Point Units 6 and 7

Operating Company: Florida P and L

Docket No. 52-040 and 52-041

Review Section: 11.02 - Liquid Waste Management System

Application Section:

QUESTIONS

11.02-XX

NRC staff has reviewed the information presented in FSAR section 11.2 Rev. 6 and cannot determine the basis of the source term used in the analysis to calculate dose for 10 CFR 50 Appendix I Dose Objectives. At present the applicant states a one unit source term in FSAR Table 11.2-201 and describes a maximum source term that is identified through the use of the hydrology models as found in Table 11.2-203. Staff is unable to determine in the discussions provided in section 11.2 if the maximum radionuclide concentrations provided in Table 11.2-203 and in section 11.2.3.5.2.5.1 are also for one unit.

FSAR section 11.2 Rev. 6 includes a dose assessment for the DWI that uses the dose design objectives of 10 CFR 50, Appendix I as the basis for showing potential doses are "as low as reasonably achievable" (ALARA) for compliance with 10 CFR 20.2002(d). NRC staff finds this approach acceptable for 10 CFR 20.2002 disposals of a few millirem per year potential dose to members of the public. However, the analyses performed for the inadvertent intrusion scenario, as described in Table 11.2-209, appear to represent doses for a single unit, since the radionuclide concentrations are also representative of a single unit input, even though the transport times appear to have been calculated for a two unit input flows. Therefore, the analysis do not appear to be consistent with a single unit dose assessment for use of the Appendix I design objectives, which are also specified on a per unit basis, as a means for demonstrating ALARA. NRC staff finds that dose is a function of concentration; and the concentration for the DWI is the same whether it is one or two units since the source term divided by dilution flow stays the same. For one unit, the concentration is determined by dividing the single unit source term by the single unit dilution flow. The same holds for two units, where a two unit source term would be divided by the two unit dilution flow. Both source term and dilution flow double, making the concentration stay the same as for a single unit. The maximum individual dose for the intruder as presented in Table 11.2-210 is 5.6 mrem/year, which is above the Appendix I design objective of 3 mrem/y for liquid pathways. And, as discussed above, doubling the Appendix I design objective doses, since the analyses performed appear to represent two unit input flows, does not show adequate compliance on a per unit basis.

NRC staff requests clarification on the dose assessment included in FSAR section 11.2 Rev 6 for the intruder scenario to show how doses, when calculated on a per unit basis, remain in compliance with the design objective of 10 CFR 50, Appendix I. NRC staff also request that clarifying text be added to section 11.2 to support the description of compliance on a per unit basis.

The NRC staff request that any revisions to the FSAR be provided as a markup to the response to this RAI.

