PMFermiCOLPEm Resource

From: Tonacci, Mark
Sent: Thursday, August 13, 2009 2:51 PM
To: greenl@dteenergy.com
Cc: Hale, Jerry; FermiCOL Resource; Norman K Peterson; Peter W Smith
Subject: Draft RAIs
Attachments: RAI 3422.doc; RAI 3407.doc; RAI 3404.doc; RAI 3486.doc

LaShawn,

Please review the attached RAIs and let me know if any of them need to be discussed on an RAI call. If you let me know this coming Monday morning I will see if our reviewers are available on Tuesday.

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From: Tonacci, Mark

Created By: Mark.Tonacci@nrc.gov

Recipients:
"Hale, Jerry" <Jerry.Hale@nrc.gov>
Tracking Status: None
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Files	**Size**	**Date & Time**
MESSAGE	360	8/13/2009 2:50:58 PM
RAI 3422.doc	30714	
RAI 3407.doc	30202	
RAI 3404.doc	33274	
RAI 3486.doc	30202	

Options
Priority: Standard
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Request for Additional Information No. 3422 Revision 0

Fermi Unit 3
Detroit Edison
Docket No. 52-033
SRP Section: 02.04.13 - Accidental Releases of Radioactive Liquid Effluents in Ground and Surface Waters
Application Section: 2.4.13

QUESTIONS for Hydrologic Engineering Branch (RHEB)

02.04.13-***

The staff has reviewed the FSAR Section 2.4.13, Accidental Releases of Radioactive Liquid Effluents in Ground and Surface Water. In accordance with 100.20(c) and 52.79(a)(1)(iii), the NRC staff requests additional explanation and justification for the selection of the release point in the accidental release analysis. The applicant identified the release point as the Radwaste Building in FSAR Section 2.4.12. The applicant should provide a discussion for its rationale for selecting distances to potential receptors from the center of the Reactor Building, or else provide a transport analysis based on the actual release point that is assumed. Additionally, the applicant should provide justification that the use of the porosity of 1% is appropriate in the transport analysis.

Request for Additional Information No. 3407 Revision 0

Fermi Unit 3
Detroit Edison
Docket No. 52-033
SRP Section: 02.02.03 - Evaluation of Potential Accidents
Application Section: 2.2.3

QUESTIONS for ESBWR/ABWR Projects 1 (NGE1)

02.02.03-***

RG 1.206 provides guidance regarding the information that is needed to ensure potential hazards in the site vicinity are identified and evaluated to meet the siting criteria in 10 CFR 100.20 and 10 CFR 100.21. In Fermi 3 FSAR Section 2.2.3.1.4.3, the applicant stated without further discussion “Transportation of toxic chemicals in the vicinity is not a concern for Fermi 3 control room habitability analysis”. Provide the basis for this statement, its rationale, and the methodology applied to reach this conclusion. The information is needed for staff’s review and independent confirmatory analysis.

Request for Additional Information No. 3404 Revision 0

Fermi Unit 3
Detroit Edison
Docket No. 52-033
SRP Section: 02.02.03 - Evaluation of Potential Accidents
Application Section: 2.2.3

QUESTIONS for ESBWR/ABWR Projects 1 (NGE1)

02.02.03-***

RG 1.206 provides guidance regarding the information that is needed to ensure potential hazards in the site vicinity are identified and evaluated to meet the siting criteria in 10 CFR 100.20 and 10 CFR 100.21. The Fermi 3 FSAR Table 2.2-202 listed the propane amounts on premises for the facilities Meijer Distributions Inc.; TWB Company, LLC; and Rockwood Landfill, but did not provide an analysis of the potential explosion hazard. Provide the propane explosion scenario analysis and present the results of the evaluation for these sources in the Fermi 3 FSAR Section 2.2.3.1.1.

02.02.03-***

RG 1.206 provides guidance regarding the information that is needed to ensure potential hazards in the site vicinity are identified and evaluated to meet the siting criteria in 10 CFR 100.20 and 10 CFR 100.21. The Femi 3 FSAR Sections 2.2.3.1.1 and 2.2.3.1.2 address the safe separation distance between the hydrogen and oxygen storage area and nearest safety-related structure to be 229 m (750 ft) for the potential explosion and flammable vapor cloud explosion hazard. However, there is no analysis or discussion presented in FSAR as to how this safe separation distance is determined. Provide the analysis/discussion for the calculation of safe separation distance.

02.02.03-***

RG 1.206 provides guidance regarding the information that is needed to ensure potential hazards in the site vicinity are identified and evaluated to meet the siting criteria in 10 CFR 100.20 and 10 CFR 100.21. The Fermi 3 FSAR Table 2.2-203 listed two 8000 gallon gasoline underground storage tanks adjacent to southeast corner of building 24. Provide the potential explosion hazard of tanker trucks that deliver gasoline to these tanks.

02.02.03-***

RG 1.206 provides guidance regarding the information that is needed to ensure potential hazards in the site vicinity are identified and evaluated to meet the siting criteria in 10 CFR 100.20 and 10 CFR 100.21. The potential toxic chemicals identified from onsite sources are addressed and summarized in the Fermi 3 FSAR Section 2.2.3.1.4.1 and Table 2.2-205. Of these chemicals, some are analyzed by the applicant for potential

control room habitability, but the information in the FSAR is limited. Provide a discussion of how the analyses are performed and what the resulting concentrations of chemicals are in order to demonstrate that the calculated chemical concentration is lower than the respective chemical limiting concentration (toxicity limit). Include a discussion of the model used, modeling assumptions, input values, and calculated chemical concentrations at the intake and inside the control room. This information is required for the staff's review and independent confirmatory analysis for toxic chemicals for control room habitability.

02.02.03-***

RG 1.206 provides guidance regarding the information that is needed to ensure potential hazards in the site vicinity are identified and evaluated to meet the siting criteria in 10 CFR 100.20 and 10 CFR 100.21. In Fermi 3 FSAR Section 2.2.3.1.4.2, the applicant stated "only potentially toxic chemicals require evaluation". Provide the list of all toxic chemicals evaluated. For large quantities of chemicals on site, provide rationale and how RG 1.78 methodology is applied for evaluating and screening out the following chemicals: sodium hypochlorite, hydrofluosilicic acid, anhydrous ammonia, propane and sulfuric acid (Fermi 3 FSAR Table 2.2-202). If RG 1.78 methodology was not used, describe and justify the methodology employed.

Request for Additional Information No. 3486 Revision 0

Fermi Unit 3
Detroit Edison
Docket No. 52-033
SRP Section: 01 - Introduction and Interfaces
Application Section: 1.3.2.2

QUESTIONS for Financial, Policy, & Rulemaking Branch (NRR/DPR/PFPB)

01-***

Section 1.3.2.2 Combined Project Costs

The estimate of construction costs in the COLA does not follow the format presented in 10 CFR Part 50, Appendix C, I.A.1. Please provide the overnight capital costs broken down as: (a) total nuclear production plant costs; (b) transmission, distribution, and general plant costs; (c) nuclear fuel inventory cost for first core; and (d) total estimated cost. Also, provide the cost estimates in terms of total costs instead of as costs per kilowatt electric.