

PMFermiCOLPEm Resource

From: Hale, Jerry
Sent: Wednesday, July 29, 2009 3:17 PM
To: LaShawn G Green; 'Norman K Peterson'
Cc: FermiCOL Resource
Subject: Fermi 3 RAI Letter #9
Attachments: Fermi 3 RAI Letter #9_ML092100072.pdf

LaShawn,

Attached is Fermi 3 RAI Letter #9.

Jerry Hale
Project Manager
U.S. Nuclear Regulatory Commission
Office of New Reactors
ESBWR/ABWR Branch 1
(301) 415-8148

Hearing Identifier: Fermi_COL_Public
Email Number: 355

Mail Envelope Properties (D841D501B2C4D244B75AB897F70C14949A4B5E00E8)

Subject: Fermi 3 RAI Letter #9
Sent Date: 7/29/2009 3:17:10 PM
Received Date: 7/29/2009 3:17:11 PM
From: Hale, Jerry

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Files	Size	Date & Time
MESSAGE	201	7/29/2009 3:17:11 PM
Fermi 3 RAI Letter #9_ML092100072.pdf		140616

Options

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

July 29, 2009

Mr. Jack M. Davis
Senior Vice President and Chief Nuclear Officer
Detroit Edison Company
Fermi 2 – 210 NOC
6400 North Dixie Highway
Newport, MI 48166

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 9 RELATED TO
THE SRP SECTIONS CHAPTER 1, 05.03.02, 09.05.02.02, 13.01.01, 13.03,
AND 14.03.07 FOR THE FERMI 3 COMBINED LICENSE APPLICATION

Dear Mr. Davis:

By letter dated September 18, 2008, Detroit Edison Company (Detroit Edison) submitted for approval a combined license application pursuant to 10 CFR Part 52. The U.S. Nuclear Regulatory Commission (NRC) staff is performing a detailed review of this application to enable the staff to reach a conclusion on the safety of the proposed application.

The NRC staff has identified that additional information is needed to continue portions of the review. The staff's request for additional information (RAI) is contained in the enclosure to this letter. To support the review schedule, you are requested to respond within 45 days of the date of this letter. If changes are needed to the safety analysis report, the staff requests that the RAI response include the proposed wording changes.

If you have any questions or comments concerning this matter, I can be reached at 301-415-8148 or by e-mail at Jerry.Hale@nrc.gov.

Sincerely,

/RA/

Jerry R. Hale, Project Manager
ESBWR/ABWR Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 052-033

eRAI Tracking Nos. 3160, 3161, 3163, 3164, 3215, 3265, 3272, 3286, 3298, 3312

Enclosure:
Request for Additional Information

July 29, 2009

Mr. Jack M. Davis
Senior Vice President and Chief Nuclear Officer
Detroit Edison Company
Fermi 2 – 210 NOC
6400 North Dixie Highway
Newport, MI 48166

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 9 RELATED TO
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AND 14.03.07 FOR THE FERMI 3 COMBINED LICENSE APPLICATION

Dear Mr. Davis:

By letter dated September 18, 2008, Detroit Edison Company (Detroit Edison) submitted for approval a combined license application pursuant to 10 CFR Part 52. The U.S. Nuclear Regulatory Commission (NRC) staff is performing a detailed review of this application to enable the staff to reach a conclusion on the safety of the proposed application.

The NRC staff has identified that additional information is needed to continue portions of the review. The staff's request for additional information (RAI) is contained in the enclosure to this letter. To support the review schedule, you are requested to respond within 45 days of the date of this letter. If changes are needed to the safety analysis report, the staff requests that the RAI response include the proposed wording changes.

If you have any questions or comments concerning this matter, I can be reached at 301-415-8148 or by e-mail at Jerry.Hale@nrc.gov.

Sincerely,

/RA/

Jerry R. Hale, Project Manager
ESBWR/ABWR Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 052-033

eRAI Tracking Nos. 3160, 3161, 3163, 3164, 3215, 3265, 3272, 3286, 3298, 3312

Enclosure:

Request for Additional Information

Distribution: NRay, NRO

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ADAMS Accession No. ML092100072

NRO-002

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DATE	7/9/09	7/13/09	6/25/09	7/16/09	7/13/09	6/25/09	6/25/09

*Approval captured electronically in the electronic RAI system.

Request for Additional Information No. 3160 Revision 1

SRP Section: 13.01.01 - Management and Technical Support Organization
Application Section: 13.1.2.1.1.12

13.01.01-1

A review of Fermi 3 FSAR, Rev. 1, Section 13.1.2.1.1.12 indicates that the listing of responsibilities for Radiation Protection Technicians is incomplete. Specifically:

- a. The 4th item in the listing should be revised to include radioactive wastes destined for offsite processing, storage, and disposal.
- b. A new item should be added to the current listing identifying responsibilities for managing radioactive liquid and gaseous effluent releases, and conducting radiological environmental monitoring in assessing offsite doses to members of the public.

The applicant is requested to revise the responsibilities of Radiation Protection Technicians in demonstrating compliance with Part 20.1301 and Appendix I to Part 50.

Request for Additional Information No. 3161 Revision 1

SRP Section: 13.01.01 - Management and Technical Support Organization
Application Section: 13.1.2.1.1.10

13.01.01-2

A review of Fermi 3 FSAR, Rev. 1, Section 13.1.2.1.1.10 indicates that the listing of responsibilities for the Radiation Protection Manager is incomplete. The 7th item in the listing should be revised to include programs for managing radioactive liquid and gaseous effluent releases and associated offsite doses, in addition to managing radioactive wastes. The applicant is requested to revise the responsibilities of the Manager in demonstrating compliance with Part 20.1301 and Appendix I to Part 50.

Request for Additional Information No. 3163 Revision 0

SRP Section: 14.03.07 - Plant Systems - Inspections, Tests, Analyses, and Acceptance Criteria
Application Section: FSAR, Rev. 0, Part 10: Tier 1 ITAAC, Section 2.4.9

14.03.07-1

A review of Fermi 3 FSAR, Rev. 0, Part 10: Tier 1 ITAAC, Section 2.4.9 indicates that it still refers to a mobile system as being outside of the scope of the certified design. The ESBWR DCD, Rev. 5, Tier 2, Section 11.2 and DCD, Rev. 5, Tier 1 Section 2.10.1 no longer refer to the use of a mobile LWMS. Accordingly, the applicant is requested to revise the designation of the LWMS in FSAR Rev. 0, Part 10: Tier 1, Section 2.4.9 and make it consistent with the corresponding designations of Tier 1 and 2 Sections of the ESBWR DCD, Rev. 5.

Request for Additional Information No. 3164 Revision 0

SRP Section: 14.03.07 - Plant Systems - Inspections, Tests, Analyses, and Acceptance Criteria
Application Section: FSAR, Rev. 0, Part 10: Tier 1 ITAAC, Section 2.4.10

14.03.07-2

A review of Fermi 3 FSAR, Rev. 0, Part 10: Tier 1 ITAAC, Section 2.4.10 indicates that it still refers to a mobile system as being outside of the scope of the certified design. The ESBWR DCD, Rev. 5, Tier 2, Section 11.4 and DCD, Rev. 5, Tier 1 Section 2.10.2 no longer refer to the use of a mobile SWMS. Accordingly, the applicant is requested to revise the designation of the SWMS in FSAR Rev. 0, Part 10: Tier 1, Section 2.4.10 and make it consistent with the corresponding designations of Tier 1 and 2 Sections of the ESBWR DCD, Rev. 5.

Request for Additional Information No. 3215 Revision 0

SRP Section: 09.05.02 - Communications Systems
Application Section: 09.05.02.02

09.05.02-1

COLA FSAR Tier 2, Section 9.5.2.2 under the heading "Emergency Communication Systems," for COL Item EF3 COL 9.5.2.5-1-A states, "Fermi also has multi-line Radiological Emergency Response Preparedness (RERP) telephones (Marked Emergency Use Only) that have an ENS button to allow access to the ENS." Further, the applicant states, "If the ENS is inoperable, the required notifications can be made via commercial telephone or any other method to ensure that a report is made as soon as practical." It is unclear if the RERP is intended as a backup to the ENS or an alternate access method to reach the ENS. The NRC staff request clarification if the RERP is intended as a backup to the ENS or an alternate access and what specific systems are referred to by, "... the required notifications can be made via ... or any other method to ensure that a report is made as soon as practical."

Request for Additional Information No. 3265 Revision 0

SRP Section: 13.03 - Emergency Planning
Application Section: Part 5

13.03-1

ETE-1: Site Location and Emergency Planning Zone
Acceptance Criteria: Requirements A and H; Acceptance Criterion 11
Regulatory Basis: Appendix 4 to NUREG-0654 Section I.A.

A. Provide a map of the EPZ that identifies the political boundaries in a revision to the ETE report.

Request for Additional Information No. 3272 Revision 0

SRP Section: 13.03 - Emergency Planning
Application Section: Part 5

13.03-2

ETE-2: ETE General Assumptions

Acceptance Criteria: Requirements A and H; Acceptance Criterion 11

Regulatory Basis: Appendix 4 to NUREG-0654 Sections I.B.

- A. Section 2.3, "Study Assumptions," (3b) states that 64 percent of households with commuters will await the return of a commuter before beginning their evacuation trip; however, Appendix F, "Telephone Survey," states 55 percent will await the return of a family member before evacuating. Explain why 64 percent was used as the value for households who will await the return of a commuter instead of the 55 percent value identified in Appendix F. Revise the ETE report as needed.

13.03-3

ETE-3: ETE Methodology

Acceptance Criteria: Requirements A and H; Acceptance Criterion 11

Regulatory Basis: Appendix 4 to NUREG-0654 Section I.C.

- A. Section 4, "Estimation of Highway Capacity," describes the approach for estimating highway capacity and provides the algorithm and equation used for the approach to a signalized intersection. Explain how the variables are derived for the Mean Duration of Green Time and Mean Queue Discharge for the capacity of an approach to a signalized intersection.
- B. Discuss how traffic control is included in the intersection analysis using the approach to a signalized intersection equation on page 4-1.
- C. Appendix D, "Detailed Description of Study Procedure," identifies the steps to perform the ETE calculations. Step 10 in Appendix D discusses that changing control treatment at critical intersections can improve service and expedite movement of traffic. Discuss any model treatments that were used to expedite movement of traffic through intersections, and revise the ETE report as needed.
- D. The traffic control plan presented in Appendix G, "Traffic Management," is considerably different than the traffic control plans identified in the Monroe and Wayne County emergency plans. Discuss the effect on the ETE if the county traffic control plans are used in the analysis. Revise the ETE report as needed.

13.03-4

ETE-4: Demand Estimation, Permanent Residents

Acceptance Criteria: Requirements A and H; Acceptance Criterion 11

Regulatory Basis: Appendix 4 to NUREG-0654 Section II.A.

- A. Table 8-1, "Transit Dependent Population Estimates," identifies 2,986 residents requiring transportation. Discuss whether any of the transit dependent residents may have special needs and require specialized transportation, and revise the ETE report as needed.

13.03-5

ETE-5: Demand Estimation, Transient Populations

Acceptance Criteria: Requirements A and H; Acceptance Criterion 11

Regulatory Basis: Appendix 4 to NUREG-0654 Sections II.B.

- A. Appendix E, "Special Facility Data," table "Fermi EPZ: Major Employers," identifies Fermi Nuclear Power Plant having 867 maximum shift employees with 55 percent commuting into the EPZ providing a total of 449 commuting employees. However, 55 percent of 867 would equal 477 commuting employees. The TWB Company LLC is identified as having 232 maximum shift employees with 40 percent commuting for a total of 36 commuting employees. However, 40 percent of 232 would equal 93 commuting employees. Multiple entries in this table do not agree with the percentage of commuting employees. Explain the difference in the percent commuting employees and the total commuting employees identified in the table, and revise the ETE report as needed.
- B. The Appendix E table "Fermi EPZ : Major Employers," identifies 530 employees for Meijer Distribution Center and 1000 employees for TWB Company, LLC. In the Fermi 3 Final Safety Analysis Report (FSAR), Table 2.1-213, "Industrial Facilities within 5 mi of Fermi Site," lists 300 employees for Meijer Distribution Inc., and 250-303 employees for TWB Company, LLC. Discuss the difference between the values in the ETE and those provided in the FSAR, and revise the ETE report as needed.

13.03-6

ETE-6: Demand Estimation, Special Facility Population

Acceptance Criteria: Requirements A and H; Acceptance Criterion 11

Regulatory Basis: Appendix 4 to NUREG-0654 Sections II.C.

- A. Table 8-4, "Special Facility Transit Demand," lists hospitals and nursing homes within the EPZ and uses the current facility population in developing resource needs. Discuss the impact on the ETE if peak populations are considered for the special facilities. Revise the ETE report as needed.
- B. Table 8-2A, "Monroe County Schools," and Table 8-2B, "Wayne County Schools," identify the enrollment and number of buses required. Section 8.2, "School Population – Transit Demand," states that bus capacity for primary school students is 70 students per bus; however, more than 70 students are allocated per bus for some schools. For instance, North Elementary School identifies 425 students and 6 bus runs. With 70 students per bus, 6 buses would accommodate 420 students. Discuss why more than 70 students per bus are allocated for the following primary schools, and revise the ETE report as needed:

North Elementary School
Raisinville Elementary School
Chapman Elementary School
David Oren Hunter Elementary School
John M. Barnes Elementary School

- C. Table 8-2A, "Monroe County Schools," and Table 8-2B, "Wayne County Schools," indicate that a total of 377 buses are required to evacuate schools in a single run. Provide the source of information used to ascertain that there are 377 buses and drivers available to respond. Revise the ETE report as needed.

13.03-7

ETE-7: Demand Estimation, Emergency Planning Zone and Sub-Areas
Acceptance Criteria: Requirements A and H; Acceptance Criterion 11
Regulatory Basis: Appendix 4 to NUREG-0654 Section II.D.

- A. Table 8-5A, "School Evacuation Time Estimates – Good Weather," indicates that the distances to the EPZ boundary from Jefferson Middle School, Sodt Elementary School, and North Elementary School are 9.2, 9.0, and 12.3 miles respectively. Information is needed to explain why these distances are greater than indicated on Figure E-1, "Overview of Schools within the Fermi EPZ." Discuss how traveling these distances through the EPZ reflects a generally radial evacuation. Revise the ETE report as needed.

13.03-8

ETE-8: Traffic Capacity, Evacuation Roadway Network
Acceptance Criteria: Requirements A and H; Acceptance Criterion 11
Regulatory Basis: Appendix 4 to NUREG-0654 Sections III.A.

- A. Figure 1-2, "Fermi Nuclear Power Plant Link-Node Analysis Network," shows the nodes used in the analysis, but the nodes are not labeled to correspond to Appendix K, "Evacuation Roadway Network Characteristics." Provide a map in a revision to the ETE report that includes legible node numbers that correspond to Appendix K.

13.03-9

ETE-9: Traffic Capacity, Roadway Segment Characteristics
Acceptance Criteria: Requirements A and H; Acceptance Criterion 11
Regulatory Basis: Appendix 4 to NUREG-0654 Section III.B.

- A. Appendix K, "Evacuation Roadway Network Characteristics" provides a tabulated description of the roadway network based on the nodal network analysis but there is no indication that the characteristics are provided for the narrowest section. Discuss how the narrowest roadway sections can be identified in Appendix K. Revise the ETE report as needed.
- B. Section 1-4, "Comparison with Prior ETE Study," states that highway free speed was used on all roadways rather than the maximum posted speed limit used in the previous analysis, contributing to the shorter ETE. Discuss the basis for using highway free speed rather than maximum posted speed.

- C. Section 4, "Estimation of Highway Capacity – Capacity Estimation Along Sections of Highway," (page 4-3) states that capacity of highway sections is a function of, among other things, percent heavy trucks. Identify the percent of heavy trucks assumed in the analysis, and revise the ETE report as needed.

13.03-10

ETE-10: Analysis of Evacuation Times, Methodology - Traffic Loading
Acceptance Criteria: Requirements A and H; Acceptance Criterion 11
Regulatory Basis: Appendix 4 to NUREG-0654 Sections IV.B.

- A. Section 5, "Estimation of Trip Generation Time," Distribution 2, "Prepare to Leave Work Activity 2-3," indicates 100 minutes for 100 percent of the workers to prepare to leave work. Appendix F, "Telephone Survey," Figure F-9, "Time Required to Prepare to Leave Work/School," indicates 120 minutes for 100 percent to prepare to leave work/school.
1. Explain why 100 minutes was used in Distribution 2 when Figure F-9 indicates 120 minutes for this value. Revise the ETE report as needed.
 2. Discuss the effects on the ETE if the 120 minute value was used, and revise the ETE report as needed.
- B. Appendix F, Figure F-10, "Time to Travel Home from Work/School," indicates 90 minutes for 100 percent of the population to travel home from work or school while Section 5, "Estimation of Trip Generation Time," Distribution 3, "Travel Home Activity 3-4," lists 80 minutes for 100 percent of the population to travel home.
1. Explain why 80 minutes was used in Distribution 3 when Figure F-10 indicates 90 minutes for this value. Revise the ETE report as needed.
 2. Discuss the effects on the ETE if the 90 minute value was used, and revise the ETE report as needed.
- C. Section 7.4, "Guidance on Using ETE Tables," identifies the contents of Table 7-1D, "Time to Clear the Indicated Area of 100 Percent of the Evacuating Population," as the elapsed time required for 100 percent of the population within a region to evacuate from that region and indicates the ETE for the R03 summer, midweek, midday, good weather is 4:05. Figure 5-3, "Comparison of Trip Generation Distributions," indicates the trip generation distribution for residents with commuters may take up to 5 hours. Discuss whether the trip generation distributions have been truncated or reduced such that they do not reflect the actions of 100 percent of the population. Revise the ETE report as needed.

13.03-11

ETE-11: Analysis of Evacuation Times, Methodology - Total Evacuation Times
Acceptance Criteria: Requirements A and H; Acceptance Criterion 11
Regulatory Basis: Appendix 4 to NUREG-0654 Section IV.B.

- A. In Figure 5-1, "Events and Activities Preceding the Evacuation Trip," the timeline for households with commuters includes time to return home, if needed, and then evacuate. The timeline for households without commuters indicates these residents are at home when they become aware of

the accident. Members of households without commuters may not be at home when they become aware of the accident and may need to return home.

1. Explain why the events and activities for households without commuters, as represented in Figure 5-1, is different from households with commuters. Revise the ETE report as needed.
 2. Discuss any effect this may have on the ETE calculation, and revise the ETE report as needed.
- B. The timeline for transients, also in Figure 5-1, indicates that transients do not return home, (e.g., hotel) prior to evacuating.
1. Discuss why Figure 5-1, indicates transients do not return to their residence prior to evacuation.
 2. Discuss any effect this may have on the time for the transient population to evacuate, if they do return to their hotel prior to leaving. Revise the ETE report as needed.
- C. Appendix E, "Special Facility Data," identifies a total of 10 marinas within the EPZ having a total vehicle estimate of 912 and a total population of 1,784, but there is no discussion on trip generation time elements for these transients. Discuss the assumptions regarding trip generation times for notifying boaters and the times assumed for loading of boats considering that boat ramps have limited capacity to load more than a few boats at a time. Revise the ETE report as needed.

13.03-12

ETE-12: Analysis of Evacuation Times, Methodology - Travel Delay
Acceptance Criteria: Requirements A and H; Acceptance Criterion 11
Regulatory Basis: Appendix 4 to NUREG-0654 Section IV.B.

- A. Section 8.4, "Evacuation Time Estimates for Transit Dependent People," (page 8-8) uses the average speed output by the model at 1 hour (31.9 mph) for ambulatory persons from special facilities and for emergency medical services (EMS) vehicles. However, Figure 7-4, "Congestion Patterns at 1 Hour After the Advisory to Evacuate," indicates congestion on the primary evacuation routes at this time. Similarly, Section 8.4 (page 8-5) states that the average speed for an evacuation of the full EPZ at 50 minutes is 36.4 mph for Monroe County. Discuss how special facility buses, EMS vehicles and school buses will achieve the stated speeds traveling through the congested evacuation routes, which as indicated on Figure 7-4 are at a Level of Service F at these times indicating slower speeds. Revise the ETE report as needed.

13.03-13

ETE-13: Analysis of Evacuation Times, Methodology, Transit Dependent
Acceptance Criteria: Requirements A and H; Acceptance Criterion 11
Regulatory Basis: Appendix 4 to NUREG-0654 Section IV.B.

- A. The Monroe County Emergency Management Plan indicates that school buses will be used to support evacuation of transit dependent residents after schools have been evacuated, and the plan states the Monroe County Intermediate School District will coordinate this provision of public transportation. Section 8.4, "Evacuation Time Estimates for Transit Dependent People," (page 8-6) states that it will take 90 minutes to mobilize drivers. Explain how buses used to evacuate the

transit dependent population in Monroe County can be mobilized in 90 minutes during the winter weekday scenario if these buses are first used to support evacuation of the schools. Revise the ETE report as needed.

- B. Section 8-1, "Transit Dependent People - Demand Estimate," (page 8-3) identifies the need for 100 bus runs to support evacuation of the transit dependent population. Table 8-7A, "Transit Dependent Evacuation Time Estimates – Good Weather," identifies 7 bus routes for the evacuation of transit dependent residents.
 - 1. Discuss the logistics and assumptions for the deployment of 10 buses on each route (1, 2, 3 and 4) at the same time.
 - 2. Discuss the effect on the ETE if a time interval needs to be added between the deployment of each bus, and revise the ETE report as needed.
- C. Section 8.4, "Evacuation Time Estimates for Transit-Dependent People," states that the second wave evacuation of transit-dependent evacuees will use buses that have completed evacuation of the schools. Table 8-7A, "Transit Dependent Evacuation Time Estimates – Good Weather," provides timing for the second wave beginning at 106 minutes (75+5+10+16), which is before completion of the first wave of buses. Discuss the logistics of the second wave of buses entering the evacuation network at 106 minutes which is in the middle of the first wave of buses 1 thru 10 (at 90 minutes) and 11 thru 20 (at 120 minutes). Revise the ETE report as needed.
- D. Figure 8-2, "Proposed Transit Dependent Bus Routes," identifies Route 4 as entering northbound along Interstate 75 and exiting westbound along State Road 50; however, Access Control Point #1 in Appendix G, "Traffic Management," indicates that traffic barricades will be placed across Interstate 75 at S. Otter Creek Road which would prevent the buses on Route 4 from traveling in the northbound direction. Explain how the Route 4 buses will access Interstate 75 to service the city of Monroe through the full lane barricade that is established with Access Control Point #1. Revise the ETE report as needed.

13.03-14

ETE-14: Analysis of Evacuation Times, Methodology, Special Facilities
Acceptance Criteria: Requirements A and H; Acceptance Criterion 11
Regulatory Basis: Appendix 4 to NUREG-0654 Section IV.B.

- A. Table 8-4, "Special Facility Transit Demand," identifies each special facility by name and the specialized resources needed to support an evacuation including 21 ambulance runs to evacuate non-ambulatory residents. Table 8-4 uses the facility current census for the determination of resources needed to support an evacuation. Discuss whether additional resources would be required to support peak populations of special facilities, and revise the ETE report as needed.
- B. Section 8.4, "Evacuation Time Estimates for Transit Dependent People," indicates a total of 21 ambulance runs are necessary and that the time to mobilize and travel to the special facilities is 'at most' 30 minutes. Discuss whether there are 21 ambulances available within or near the EPZ to respond within the 30 minutes indicated. Revise the ETE report as needed.
- C. Monroe City Jail, Facility #1 and Facility #2 are identified in Appendix E, "Special Facility Data," but information on evacuation of these facilities is not provided.

1. Discuss the assumptions, logistics, and resource requirements to support evacuation of the Monroe County Jail facilities in a revision to the ETE report.
 2. Provide an ETE for the evacuation of the two jail facilities in a revision to the ETE report.
- D. Table 8-5A, "School Evacuation Time Estimates – Good Weather," indicates a 15 minute mobilization time for Airport Senior High School, Carleton Country Day, and Wager Junior High School while mobilization for all other Monroe County schools is 45 minutes. Discuss why the mobilization time for Airport Senior High School, Carleton Country Day, and Wager Junior High School is 15 minutes. Revise the ETE report as needed.
- E. The schools identified in Table 8-5A, indicate a bus loading time of 5 minutes. The "Wayne County Emergency Operations Plan" identifies the process for loading students as being conducted one classroom at a time with the teacher handing the student roster to the Principal when the bus is loaded. Some of these schools have large enrollments such as Monroe Senior High School with 2,130 students. Information is needed to support a bus loading time of 5 minutes. Discuss the assumptions and logistics for queuing buses, loading 2,130 students and departing the school in 5 minutes, and revise the ETE report as needed.

13.03-15

ETE-15: Other Requirements, Confirmation of Evacuation
 Acceptance Criteria: Requirements A and H; Acceptance Criterion 11
 Regulatory Basis: Appendix 4 to NUREG-0654 Section V.

- A. Section 12, "Confirmation Time," provides a time estimate for confirmation of the evacuation; however, the process provided is a suggested alternative. Discuss whether the counties have agreed with the ETE plans for confirmation of evacuation using a telephone survey approach. Revise the ETE report as needed.
- B. Discuss whether the time required to obtain telephone numbers of residents has been included in the time estimate. Revise the ETE report as needed.

13.03-16

ETE-16: Other Requirements, Draft Review
 Acceptance Criteria: Requirements A and H; Acceptance Criterion 11
 Regulatory Basis: Appendix 4 to NUREG-0654 Section V.

- A. Clarify whether State and local law enforcement have reviewed the traffic management plan in a revision to the ETE report.
- B. Discuss whether State and local organizations provided any comments or concerns regarding the ETE, including resources and priorities of placement of traffic control. Revise the ETE report as needed.
- C. Discuss the applicability of Appendix G if it is not consistent with local traffic control plans.

Request for Additional Information No. 3286 Revision 0

SRP Section: 05.03.02 - Pressure-Temperature Limits, Upper-Shelf Energy, and Pressurized Thermal Shock

Application Section: 05.03.02

05.03.02-1

In a letter dated June 17, 2009 Dominion submitted a generic pressure and temperature limits report (PTLR) as part of the North Anna 3 R-COL application. The letter stated that the generic PTLR was developed by GEH and is expected to apply to all COL applicants referencing the ESBWR DCD. On this basis, the staff requests the following:

- A. Revise Fermi 3 S-COL Technical Specifications (TS) to reference the generic PTLR submitted by Dominion.
- B. Revise Fermi 3 S-COL FSAR to add a statement that addresses the submittal of pressure-temperature limits using plant-specific material properties. For example, The COL Holder shall update the P/T limits prior to fuel load using the PTLR methodologies approved in the North Anna 3 R-COL and the plant-specific material properties. The COL Holder will inform the NRC of the updated P/T limits.

This approach is consistent with NRC Generic Letter 96-03 which provides a method for a licensee that references a PTLR to inform the NRC of any subsequent change in P-T limits without a requirement for NRC approval if there are no changes to the approved PTLR methodology.

Request for Additional Information No. 3298 Revision 0

SRP Section: 13.03 - Emergency Planning

Application Section: Part 5

13.03-17

EALs are discussed in Section D, "Emergency Classification System," of the application, Part 5 Initial EALs, which are required by 10 CFR 50.47(b)(4) and Section IV.B of Appendix E to 10 CFR Part 50, must be approved by the NRC. The Fermi unit 3 combined license (COL) application does not fully address certain aspects of the required EAL scheme. This is because various equipment set points and other information cannot be determined until the as-built information is available; e.g., head corrections, radiation shine, final technical specifications, and equipment calculations and tolerances. The NRC has been evaluating possible options to ensure applicants address the regulations. The NRC is presenting the applicant with two options to satisfy its EAL obligations:

Option 1 – Submit an entire EAL scheme, which contains all site-specific information, including set points. Until this information is finalized, EALs would remain an open item.

Option 2 – Submit emergency plan Section D, "Emergency Classification System," which addresses the four critical elements of an EAL scheme (listed below). The NRC will determine the acceptability of the EAL scheme.

- *Critical Element 1* – Applicant proposes an overview of its emergency action level scheme including defining the four emergency classification levels, (Notification of Unusual Event, Alert, Site Area Emergency, and General Emergency), as stated in NEI 99-01, Revision 5, with a general list of licensee actions at each emergency classification level.
- *Critical Element 2* – Applicant proposes to develop the remainder of its EAL scheme by using a specified NRC endorsed guidance document. In the development of its EALs, the proposed EALs should be developed with few or no deviations or differences from NRC guidance, other than those attributable to the specific reactor design. NEI 07-01, if endorsed, will be applicable to the AP1000 and ESBWR (passive) reactor designs, and NEI 99-01 is applicable to all (non-passive) reactor designs. If applicable, EALs related to digital instrumentation and control must be included.
- *Critical Element 3* – Applicant proposes a License Condition (LC) that the applicant will create a fully developed set of EALs in accordance with the specified guidance document. These fully developed EALs must be submitted to the NRC for confirmation at least 180 days prior to fuel load.
- *Critical Element 4* – The EALs must be kept in a document controlled by 10 CFR 50.54(q), such as the emergency plan, or a lower tier document, such as the Emergency Plan Implementing Procedures.

Please review the two options provided above, identify which option will be chosen, and provide the detailed EAL information in support of the chosen option.

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01-1

Section 302(b)(1)(B) of the Nuclear Waste Policy Act of 1982, as amended, states "The Commission, as it deems necessary or appropriate, may require as a precondition to the issuance or renewal of a license under section 103 or 104 of the Atomic Energy Act of 1954 (42 U.S.C. 2133, 2134) that the applicant for such license shall have entered into an agreement with the Secretary for the disposal of high-level radioactive waste and spent nuclear fuel that may result from the use of such license."

Please identify the DOE contract number applicable to Fermi 3 for disposal of high-level radioactive waste and spent nuclear fuel or provide Detroit Edison's plans, including the time frame, for entering into such a contract.

01-2

The purpose of this RAI is to 1) determine if the proposed standard license conditions for 10 CFR Part 30, 40, and 70 are appropriate for the Fermi 3 COL application and 2) request additional information in the application to address program elements to ensure that Detroit Edison will have in place the necessary controls to allow receipt of byproduct and source material prior to the 10 CFR 52.103(g) finding.

In the Fermi 3 COL application transmittal letter, dated September 18, 2008, and in Part 1, General and Administrative Information, of the application, Detroit Edison requested such other licenses as would be required for receipt, possession and use of source, byproduct and special nuclear material in connection with the operation of Unit 3. The staff notes that such licenses would be in accordance with Commission regulations in 10 CFR Parts 30, 40, and 70.

In a memorandum (ML083030065) dated December 9, 2008, the staff proposed the following standard license conditions and requirements for COLs regarding 10 CFR Parts 30, 40, and 70:

- (1) (i) Pursuant to the Act and 10 CFR Part 70, to receive and possess at any time, special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, described in the final safety analysis report (FSAR), as supplemented and amended;
- (ii) Pursuant to the Act and 10 CFR Part 70, to use special nuclear material as reactor fuel, after the finding in Section 2.D(1) of this license has been made, in accordance with the limitations for storage and amounts required for reactor operation, and described in the FSAR, as supplemented and amended;
- (2) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use, at any time, any byproduct, source, and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (3) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use in amounts as required, any byproduct, source, or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (4) Pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

Please discuss whether the above proposed standard license conditions and requirements are considered appropriate to support the Fermi 3 COL application.

In addition, please discuss which parts of the application provide sufficient information to support compliance with the applicable portions of 10 CFR Part 30 and 40, and provide additional information as needed. For example, describe how you have addressed in the application the radiation protection program, security and fire protection program elements that will be in place prior to receipt of the byproduct or source material authorized by the proposed license conditions and requirements above. Note that the staff believes that its current review of the Fermi 3 COL application will identify the necessary controls regarding the receipt of new fuel on site in accordance with 10 CFR Part 70.