

April 28, 2011

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. 56 RELATED TO
THE SRP SECTIONS 16 AND 17.4 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 30 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 Hale, Project Manager
BWR Projects Branch
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 052-033

eRAI Tracking Nos. 5348, 5656 and 5657

Enclosure:
Request for Additional Information

April 28, 2011

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Senior Vice President and Chief Nuclear Officer
Detroit Edison Company
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THE SRP SECTIONS 16 AND 17.4 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 30 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.

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Docket Nos. 052-033

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Enclosure:
Request for Additional Information

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DATE	3/15/11	3/17/11	4/14/11	4/28/11

***Approval captured electronically in the electronic RAI system.**

OFFICIAL RECORD COPY

Request for Additional Information No. 5348 Revision 2

Fermi Unit 3
Detroit Edison
Docket No. 52-033
SRP Section: 17.04 - Reliability Assurance Program (RAP)
Application Section: 17.4

17.04-2

COL Information Item 17.4-1-A in Section 17.4.1 of the referenced ESBWR DCD Tier 2 states:

"The COL Applicant will identify the site-specific SSCs within the scope of the Reliability Assurance Program (RAP), and describe the quality elements [or essential elements] for developing and implementing the D-RAP (that is, Organization, Design Control, Procedures and Instructions, Records, Corrective Action, and Audit Plans) that will be applied prior to the initial fuel load (COL 17.4-1-A)."

The applicant addressed COL Information Item 17.4-1-A in Section 17.4.1 of the Fermi 3 FSAR, Revision 3, by specifying Commitment COM FSAR-17.4-001 to identify prior to the initial fuel load the site-specific SSCs within the scope of the RAP, including a description of the quality elements for developing and implementing the D-RAP.

Based on SECY-95-132, the staff found that the applicant did not sufficiently address COL Information Item 17.4-1-A in the Fermi 3 FSAR, Revision 3, as described further below:

- a. ESBWR DCD Tier 2 contains COL Information Item 17.4-1-A to ensure that COL applications referencing the ESBWR design contain a list of site-specific RAP SSCs (i.e., the RAP SSCs identified in Section 17.4 of the ESBWR DCD and updated, as needed, using COL site- and plant-specific information). It is necessary to identify the site-specific RAP SSCs prior to the detailed design, procurement, fabrication, construction, inspection, and testing phases of the plant, because the non-safety related RAP SSCs are subjected to the appropriate quality assurance (QA) controls in accordance with Standard Review Plan (SRP) Section 17.5, Part V ("Non-safety Related SSC Quality Controls") and as required by Table 3.2-1 of the ESBWR DCD Tier 2 under the heading "Safety-Related Classification" (see note (5)k in Table 3.2-1). Therefore, it is not appropriate to identify the site-specific RAP SSCs prior to the initial fuel load as stated in COM FSAR-17.4-001, as this could lead to non-safety related RAP SSCs not being subjected to the appropriate QA controls during all plant design and construction activities. Also, the NRC reviews this list during the safety evaluation (SE) review process. As such, the applicant should develop, as part of the COL application, a comprehensive list of SSCs within the scope of the COL's plant-specific RAP by introducing available site- and plant-specific information into the probabilistic, deterministic, and other methods of analysis used to identify and quantify risk.
- b. ESBWR DCD Tier 2 contains COL Information Item 17.4-1-A to also ensure that COL applications referencing the ESBWR design describe the quality elements for developing and implementing the plant-specific D-RAP, which are applied during all plant design and construction activities prior to initial fuel load. [Note that the term "quality elements" is the same as the term "essential elements" used in SECY-95-132]. These quality/essential elements are processes and controls that ensure the risk insights and

key assumptions from probabilistic, deterministic, and other methods of analysis used to identify and quantify risk are consistent with the designed and constructed plant, and that the list of RAP SSCs is appropriately developed, maintained, updated, and communicated to the appropriate organizations. Therefore, it is not appropriate to describe these quality/essential elements prior to the initial fuel load as stated in COM FSAR-17.4-001, as this could lead to the quality/essential elements not being applied during all plant design and construction activities. Also, the NRC verifies the adequacy of the description of the quality/essential elements through the SE review process and may conduct audits on the implementation of these quality/essential elements. While the quality/essential elements applied by the applicant may be similar to that described in Section 17.4.5 of the ESBWR DCD Tier 2, the applicant should impose its own quality/essential elements for developing and implementing D-RAP. As such, the applicant should describe in the COL application their quality/essential elements for developing and implementing the D-RAP (i.e., organization, design control, procedures and instructions, records, corrective action, and audit plans) that will be applied during the design, procurement, fabrication, construction, inspection, and testing phases of the plant. The SRP 17.4 acceptance criteria for D-RAP quality/essential elements is clarified in Sections A.2 ("Essential Elements of D-RAP") and B.1 ("Plant-Specific RAP") under "SRP Acceptance Criteria" of the interim staff guidance DC/COL-ISG-018 ("Interim Staff Guidance on Standard Review Plan, Section 17.4, Reliability Assurance Program, DC/COL-ISG-018," ADAMS Accession Number ML103010113).

The staff requests that the applicant appropriately address COL Information Item 17.4-1-A in the Fermi 3 FSAR. This includes: (1) identifying the site-specific RAP SSCs (i.e., the RAP SSCs identified in Section 17.4 of the ESBWR DCD Tier 2 and updated, as needed, using COL site- and plant-specific information), and (2) describing the quality/essential elements for developing and implementing the D-RAP. Also, if additional non-safety-related RAP SSCs are identified, then Table 3.2-1 of the Fermi 3 FSAR should be updated accordingly. As mentioned above, the guidance contained in DC/COL-ISG-018 (particularly Sections A.2 and B.1 under "SRP Acceptance Criteria" and the section titled "Background and Description of the Reliability Assurance Program") may be useful when addressing COL Information Item 17.4-1-A.

Request for Additional Information No. 5656 Revision 0

SRP Section: 16 - Technical Specifications
Application Section: plant-specific TS 5.5.11 Setpoint Control Program

16-3

In order to complete FSER Chapter 16, the Fermi Unit 3 plant-specific technical specifications (PTS) must be complete and have no bracketed information. Generic DCD Section 16.0, Table 16.0-1-A, COL Item 5.5.11-1 is shown as unresolved in PTS Specification 5.5.11, "Setpoint Control Program," in Part 4 of the Fermi Unit 3 COL application; paragraph 5.5.11.b still contains bracketed information. In addition, the discussion of COL items in the introduction to Part 4 of the COL application says that issues related to methodologies for pressure-temperature limits and instrumentation settings are still open. The NRC FSER for the ESBWR standard design was issued by letter dated March 9, 2011, and is available at Agencywide Documents Access and Management System (ADAMS) accession no. ML103470210. (The ESBWR final design approval (FDA) was signed on March 9, 2011, by the Director of NRC's Office of New Reactors and is available at ADAMS accession number ML110540310.) The FSER documents resolution of all issues related to these methodologies, and may therefore be referenced in PTS 5.5.11 to resolve COL Item 5.5.11-1; the FSER also provides a basis for changing the introduction to Part 4 of the COL application to indicate that the COL items related to these methodologies are complete. The applicant is requested to revise its application as described and submit the updated pages, which are affected by these changes, in the response to this request. This will enable the staff to complete FSER Chapter 16 regarding staff conclusions about the acceptability of the PTS and the PTS bases.

Request for Additional Information No. 5657 Revision 0

SRP Section: 16 - Technical Specifications
Application Section: Part 4, technical specifications and bases

16-4

The applicant is requested to correct the following editorial items or typographical errors in the plant-specific technical specifications and bases in Part 4 of the COL application, Revision 3, for Fermi Unit 3:

1. Page 3.1.4-1, add the missing period at end of LCO 3.1.4 statement.
2. Page 3.3.7.1-4, correct horizontal alignment of Functions 2, 3, and 4 in Table 3.3.7.1-1.
3. Page 3.3.7.2-1, correct horizontal alignment of Completion Times for Required Actions B.1.2, B.1.3, and B.2 in the "ACTIONS" table of Specification 3.3.7.2.
4. Page 5.5-12, insert single line break before paragraph 5.5.13.d.
5. Page B 3.1.3-4, in last paragraph remove extra line break after "...concurrent with".
6. Page B 3.1.7-6, in first paragraph of bases for SR 3.1.7.5 remove extra line break after "...those valves".
7. Page B 3.1.7-7, in second paragraph of bases for SR 3.1.7.7 remove extra line break in last sentence after "Therefore, the ".
8. Page B 3.3.1.3-4, in the "References" section of the bases for Specification 3.3.1.3 align "None." with the "Surveillance Requirements" section indentation.
9. Page B 3.3.1.5-5, remove the indentation of "REQUIREMENTS" in the flush-left title of the "Surveillance Requirements" section of the bases for Specification 3.3.1.5.
10. Page B 3.3.1.6-6, in the "References" section of the bases for Specification 3.3.1.6 align "None." with the "Surveillance Requirements" section indentation.
11. Page B 3.4.4-1, in the fifth paragraph, first sentence, of the "Background" section of the bases for Specification 3.4.4 insert a space after "CFR".
12. Page B 3.7.6-2, replace "satisfies" with "satisfy" in the last sentence of the "Applicable Safety Analyses" section of the bases for Specification 3.7.6.
13. Page B 3.8.1-5, remove erroneous ")." from the first paragraph of the bases for Required Action B.1 in the "Actions" section of the bases for Specification 3.8.1.

The applicant is also requested to identify and correct any other editorial or typographical errors that may exist in the plant-specific technical specifications and bases.

In response to this question, the applicant is requested to submit revised pages, from the plant-specific technical specifications and bases, containing the corrections. These revised pages are needed by the staff to complete Chapter 16 of the final safety evaluation report for the Fermi Unit 3 COL application.