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DTE Energy

10 CFR 50.90

May 27, 2005
NRC-05-0008

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington D C 20555-0001

Reference: Fermi 2
Docket No. 50-341
License No. NPF-43

Subject: Application for Technical Specification Improvement to Revise Control Rod Scram Time Testing Frequency

In accordance with the provisions of Section 50.90 of Title 10 of the Code of Federal Regulations (10 CFR), Detroit Edison is submitting a request for an amendment to the Technical Specifications (TS) for Fermi 2.

The proposed amendment would revise TS testing frequency for the surveillance requirement (SR) in TS 3.1.4, "Control Rod Scram Times." These changes are based on TS Task Force (TSTF) change traveler TSTF-460 (Revision 0) that has been approved generically for the boiling water reactor (BWR) Improved Standard TS, NUREG-1433 (BWR/4) and NUREG-1434 (BWR/6) by revising the frequency of SR 3.1.4.2, control rod scram time testing, from "120 days cumulative operation in MODE 1" to "200 days cumulative operation in MODE 1." A notice announcing the availability of this proposed TS change using the Consolidated Line Item Improvement Process was published in the Federal Register on August 23, 2004 (69 FR 51854).

Attachment 1 provides a description of the proposed change and confirmation of applicability. Attachment 2 provides the existing TS page marked-up to show the proposed change. Attachment 3 provides the typed revised page.

A001

Detroit Edison requests approval of the proposed license amendment by November 28, 2005, with the amendment being implemented within 30 days.

In accordance with 10 CFR 50.91, a copy of this application, with attachments, is being provided to the designated Michigan State Official.

If you have any questions or require additional information, please contact Mr. Norman K. Peterson, Manager, Nuclear Licensing at (734) 586-4258.

Sincerely,

William J. O'Connor

Attachments:
1. Description and Assessment
2. Proposed Technical Specification Changes (Mark-up)
3. Proposed Technical Specification Changes (Typed)

cc: D. P. Beaulieu
E. R. Duncan
NRC Resident Office
Regional Administrator, Region III
Supervisor, Electric Operators,
Michigan Public Service Commission

I, WILLIAM T. O'CONNOR, Jr, do hereby affirm that the foregoing statements are based on facts and circumstances which are true and accurate to the best of my knowledge and belief.

William T. O'Connor, Jr.

WILLIAM T. O'CONNOR, Jr.
Vice President – Nuclear Generation

On this 27th day of May, 2005 before me personally appeared William T. O'Connor, Jr., being first duly sworn and says that he executed the foregoing as his free act and deed.

Notary Public

NORMAN K. PETERSON
NOTARY PUBLIC MONROE CO., MI
MY COMMISSION EXPIRES Jul 24, 2006

ATTACHMENT 1 TO
NRC-05-0008

DESCRIPTION AND ASSESSMENT

1.0 INTRODUCTION

The proposed license amendment revises the required testing frequency for the surveillance requirement (SR) in Technical Specification (TS) 3.1.4, "Control Rod Scram Times." A notice announcing the availability of this proposed TS change using the consolidated line item improvement process (CLIIP) was published in the Federal Register on August 23, 2004 (69 FR 51854).

2.0 PROPOSED CHANGE

These changes are based on TS Task Force (TSTF) change traveler TSTF-460 (Revision 0) that has been approved generically for the boiling water reactor (BWR) Improved Standard TS, NUREG-1433 (BWR/4) and NUREG-1434 (BWR/6). The required frequency of SR 3.1.4.2, control rod scram time testing, is changed from "120 days cumulative operation in MODE 1" to "200 days cumulative operation in MODE 1."

3.0 BACKGROUND

The background for this application is adequately addressed by the CLIIP Notice of Availability published on August 23, 2004 (69 FR 51854) and TSTF-460.

4.0 REGULATORY REQUIREMENTS AND GUIDANCE

The applicable regulatory requirements and guidance associated with this application are adequately addressed by the CLIIP Notice of Availability published on August 23, 2004 (69 FR 51854) and TSTF-460.

5.0 TECHNICAL ANALYSIS

Detroit Edison has reviewed the safety evaluation (SE) published on August 23, 2004 (69 FR 51854) as part of the CLIIP Notice of Availability. This verification included a review of the NRC staff's SE and the supporting information provided to support TSTF-460. Detroit Edison has concluded that the justification presented in the TSTF proposal and the SE prepared by the NRC staff are applicable to Fermi 2 and justify this amendment for the incorporation of the changes to the Fermi 2 TS.

As described in the CLIIP model SE, part of the justification for the change in surveillance frequency is the high reliability of the Fermi 2 control rod drive system. As requested in the notice of availability published on August 23, 2004 (69 FR 51854), the historical performance of the control rod drive system at Fermi 2 is as follows:

> The control rod insertion time test results at Fermi 2 have shown the control rod drive system to be highly reliable. The most recent five years (January 2000 to April 2005) of

testing were chosen as the relevant years for evaluating the results of scram time testing. Fermi 2 converted to the Improved Standard Technical Specifications (NUREG-1433) on October 31, 1999. Prior to this, the TS required monitoring maximum individual control rod scram times (7 second requirement for inoperable rods), average scram times, and local scram times of a four control rod group, but not individual slow control rods. Since January 2000, only one control rod out of approximately 2981 control rods that have been tested has been slower than the insertion time limit. This is a 0.03 percent failure rate. The extensive historical database substantiates the claim of high reliability of the Fermi 2 control rod drive system.

6.0 COMMITMENTS

The current TS states that the acceptance criteria have been met if 20 percent or fewer of the sample control rods that are tested are found to be slow. The acceptance criterion is being changed for at-power surveillance testing from 20 percent to 7.5 percent when the surveillance period is extended to 200 cumulative days of operation in Mode 1. This tightened acceptance criterion for at-power surveillance aligns with the TS 3.1.4 requirement for the total control rods allowed to have scram times exceeding the specified limit.

As discussed in the CLIIP model SE published in the Federal Register on August 23, 2004 (69 FR 51854) for this TS improvement, Detroit Edison is making the following regulatory commitment with the understanding that the NRC will include it as a condition for the issuance of the requested amendment:

Detroit Edison will incorporate the revised acceptance criterion value of 7.5 percent into the TS Bases for Fermi 2 in accordance with the Bases Control Program described in TS 5.5.10.

7.0 NO SIGNIFICANT HAZARDS CONSIDERATION

Detroit Edison has reviewed the proposed no significant hazards consideration determination published on August 23, 2004 (69 FR 51854) as part of the CLIIP. Detroit Edison has concluded that the proposed determination presented in the notice is applicable to Fermi 2 and the determination is hereby incorporated by reference to satisfy the requirements of 10 CFR 50.91(a).

8.0 ENVIRONMENTAL EVALUATION

Detroit Edison has reviewed the environmental evaluation included in the model SE published on August 23, 2004 (69 FR 51854) as part of the CLIIP. Detroit Edison has concluded that the NRC staff's findings presented in that evaluation are applicable to Fermi 2 and the evaluation is hereby incorporated by reference for this application.

9.0 PRECEDENT

This application is being made in accordance with the CLIIP. Detroit Edison is not proposing variations or deviations from the TS changes described in TSTF-460 or the NRC staff's model SE published on August 23, 2004 (69 FR 51854).

10.0 REFERENCES

Federal Register Notice: Notice of Availability of Model Application Concerning Technical Specifications Improvement Regarding Revision to the Control Rod Scram Time Testing Frequency in STS 3.1.4, "Control Rod Scram Times", for General Electric Boiling Water Reactors Using the Consolidated Line Item Improvement Process, published August 23, 2004 (69 FR 51854).

ATTACHMENT 2 TO
NRC-05-0008

PROPOSED TECHNICAL SPECIFICATION CHANGES (MARK-UP)

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SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.1.4.2	Verify, for a representative sample, each tested control rod scram time is within the limits of Table 3.1.4-1 with reactor steam dome pressure ≥ 800 psig.	~~120~~ 200 days cumulative operation in MODE 1
SR 3.1.4.3	Verify each affected control rod scram time is within the limits of Table 3.1.4-1 with any reactor steam dome pressure.	Prior to declaring control rod OPERABLE after work on control rod or CRD System that could affect scram time
SR 3.1.4.4	Verify each affected control rod scram time is within the limits of Table 3.1.4-1 with reactor steam dome pressure ≥ 800 psig.	Prior to exceeding 40% RTP after fuel movement within the associated core cell AND Prior to exceeding 40% RTP after work on control rod or CRD System that could affect scram time

ATTACHMENT 3 TO
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PROPOSED TECHNICAL SPECIFICATIONS CHANGES (TYPED)

Page 3.1-13

SURVEILLANCE REQUIREMENTS (continued)

	SURVEILLANCE	FREQUENCY
SR 3.1.4.2	Verify, for a representative sample, each tested control rod scram time is within the limits of Table 3.1.4-1 with reactor steam dome pressure ≥ 800 psig.	200 days cumulative operation in MODE 1
SR 3.1.4.3	Verify each affected control rod scram time is within the limits of Table 3.1.4-1 with any reactor steam dome pressure.	Prior to declaring control rod OPERABLE after work on control rod or CRD System that could affect scram time
SR 3.1.4.4	Verify each affected control rod scram time is within the limits of Table 3.1.4-1 with reactor steam dome pressure ≥ 800 psig.	Prior to exceeding 40% RTP after fuel movement within the associated core cell AND Prior to exceeding 40% RTP after work on control rod or CRD System that could affect scram time