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**DTE Energy**



10CFR50.90

June 24, 2003  
NRC-03-0056

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

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

Subject: Application for Technical Specification Improvement to  
Revise Technical Specification 3.1.8, "Scram Discharge  
Volume (SDV) Vent and Drain Valves," Using the  
Consolidated Line Item Improvement Process

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

The proposed changes would revise the required action within TS 3.1.8, "Scram Discharge Volume (SDV) Vent and Drain Valves" for the condition of having one or more SDV vent or drain lines with one valve inoperable. These changes are based on Technical Specifications Task Force (TSTF) change traveler TSTF-404 (Revision 0) that has been approved generically for the BWR (boiling water reactor) /4 [6] Standard Technical Specifications (STS), NUREG-1433 [1434], Revision 2. The availability of this TS improvement was announced in the *Federal Register* on April 15, 2003 (68 FR 18295) as part of the consolidated line item improvement process (CLIP).

A001

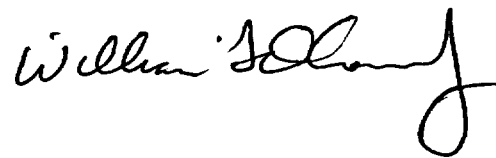
Attachment 1 provides a description of the proposed change and confirmation of applicability. Attachment 2 provides the existing TS pages marked-up to show the proposed change. Attachment 3 provides the existing TS Bases pages marked-up to reflect the proposed change (for information only). Changes to the TS Bases will be provided in a future update in accordance with the Bases Control Program. There are no new regulatory commitments associated with this proposed change.

Detroit Edison requests approval of the proposed License Amendment by December 15, 2003, with the amendment being implemented within 90 days following approval.

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

If you should have any questions regarding this submittal, please contact Norman K. Peterson at (734) 586-4258.

Sincerely,

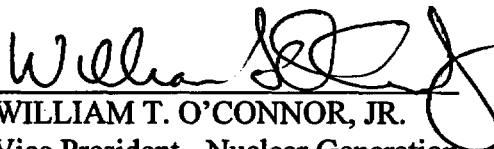


**Attachments:**

1. Description and Assessment
2. Proposed Technical Specification Changes
3. Proposed Technical Specification Bases Changes

cc: M. A. Ring  
J. R. Stang, Jr.  
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.  
Vice President - Nuclear Generation

On this 24<sup>th</sup> day of June, 2003 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

**KAREN M. REED**  
Notary Public, Monroe County, MI  
My Commission Expires 09/02/2005

**ATTACHMENT 1**  
**DESCRIPTION and ASSESSMENT**

**1.0 DESCRIPTION:**

The proposed changes would revise the required action within TS 3.1.8, "Scram Discharge Volume (SDV) Vent and Drain Valves" for the condition of having one or more SDV vent or drain lines with one valve inoperable. These changes are based on Technical Specifications Task Force (TSTF) change traveler TSTF-404 (Revision 0) that has been approved generically for the BWR [boiling water reactor] /4[6] Standard Technical Specifications (STS), NUREG-1433 [1434], Revision 2. The availability of this technical specification improvement was announced in the *Federal Register* on April 15, 2003, as part of the consolidated line item improvement process (CLIIP).

**2.0 ASSESSMENT:**

**2.1 Applicability of Published Safety Evaluation**

Detroit Edison has reviewed the safety evaluation published on April 15, 2003 (68 FR 18294) as part of the CLIIP. This verification included a review of the NRC staff's evaluation as well as the supporting information provided to support TSTF-404. Detroit Edison has concluded that the justifications presented in the TSTF proposal and the safety evaluation prepared by the NRC staff are applicable to Fermi 2 and justify this amendment for the incorporation of the changes to the Fermi 2 Technical Specifications.

**2.2 Optional Changes and Variations**

Detroit Edison is not proposing any variations or deviations from the technical specification changes described in TSTF-404 or the NRC staffs model safety evaluation published on April 15, 2003 (68 FR 18294).

**3.0 REGULATORY ANALYSIS:**

**3.1 No Significant Hazards Determination**

Detroit Edison has reviewed the proposed no significant hazards consideration determination published on April 15, 2003 (68 FR 18294) 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).

**3.2 Verification and Commitments**

There are no new regulatory commitments associated with this proposed change.

**4.0 ENVIRONMENTAL EVALUATION:**

Detroit Edison has reviewed the environmental evaluation included in the model safety evaluation published on April 15, 2003 (68 FR 18294) as part of the CLIP. Detroit Edison has concluded that the staff's findings presented in that evaluation are applicable to Fermi 2 and the evaluation is hereby incorporated by reference for this application.

**ATTACHMENT 2**

**PROPOSED TECHNICAL SPECIFICATION CHANGES (MARK-UPS)**

3.1 REACTIVITY CONTROL SYSTEMS

3.1.8 Scram Discharge Volume (SDV) Vent and Drain Valves

LCO 3.1.8 Each SDV vent and drain valve shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTIONS

NOTE <sup>(S)</sup>

① Separate Condition entry is allowed for each SDV vent and drain line.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more SDV vent or drain lines with one valve inoperable.	A.1 <del>Restore valve to OPERABLE status.</del> <i>Isolate the associated line.</i>	7 days
B. One or more SDV vent or drain lines with both valves inoperable.	B.1 <del>.....NOTE.....</del> ② An isolated line may be unisolated under administrative control to allow draining and venting of the SDV.  <i>Isolate the associated line.</i>	8 hours.
C. Required Action and associated Completion Time not met.	C.1 Be in MODE 3.	12 hours

**ATTACHMENT 3**

**PROPOSED TECHNICAL SPECIFICATION BASES PAGES**

(For Information Only)



BASES

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APPLICABLE SAFETY ANALYSES (continued)

the reactor coolant discharge during a full core scram. To automatically ensure this capacity, a reactor scram (LCO 3.3.1.1, "Reactor Protection System (RPS) Instrumentation") is initiated if the SDV water level in the instrument volume exceeds a specified setpoint. The setpoint is chosen so that all control rods are inserted before the SDV has insufficient volume to accept a full scram.

SDV vent and drain valves satisfy Criterion 3 of 10 CFR 50.36(c)(2)(ii).

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LCO

The OPERABILITY of all SDV vent and drain valves ensures that the SDV vent and drain valves will close during a scram to contain reactor water discharged to the SDV piping. Since the vent and drain lines are provided with two valves in series, the single failure of one valve in the open position will not impair the isolation function of the system. Additionally, the valves are required to open on scram reset to ensure that a path is available for the SDV piping to drain freely at other times.

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APPLICABILITY

In MODES 1 and 2, scram may be required; therefore, the SDV vent and drain valves must be OPERABLE. In MODES 3 and 4, control rods are not able to be withdrawn since the reactor mode switch is in shutdown and a control rod block is applied. This provides adequate controls to ensure that only a single control rod can be withdrawn. Also, during MODE 5, only a single control rod can be withdrawn from a core cell containing fuel assemblies. Therefore, the SDV vent and drain valves are not required to be OPERABLE in these MODES since the reactor is subcritical and only one rod may be withdrawn and subject to scram.

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ACTIONS

The ACTIONS table is modified by <sup>two</sup> ~~2~~ Note <sup>5, the first</sup> indicating that a separate Condition entry is allowed for each SDV vent and drain line. This is acceptable, since the Required Actions for each Condition provide appropriate compensatory actions for each inoperable SDV line. Complying with the Required Actions may allow for continued operation, and subsequent

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BASES

ACTIONS (continued)

inoperable SDV lines are governed by subsequent Condition entry and application of associated Required Actions.

A.1

*associated line must be isolated to contain the reactor coolant during a scram.*

When one SDV vent or drain valve is inoperable in one or more lines, ~~the valves must be restored to OPERABLE status within 7 days.~~ The Completion Time is reasonable, given the level of redundancy in the lines and the low probability of a scram occurring while the valve(s) are inoperable. The SDV is still isolable since the redundant valve in the affected line is OPERABLE. During these periods, the single failure criterion may not be preserved, and a higher risk exists to allow reactor water out of the primary system during a scram.

*7 day*

*with the line not isolated*

B.1

If both valves in a line are inoperable, the line must be isolated to contain the reactor coolant during a scram.

When a line is isolated, the potential for an inadvertent scram due to high SDV level is increased. Required *The second Note Action B.1 is modified by a Note that* allows periodic draining and venting of the SDV when a line is isolated. During these periods, the line may be unisolated under administrative control. This allows any accumulated water in the line to be drained, to preclude a reactor scram on SDV high level. This is acceptable since the administrative controls ensure the valve can be closed quickly, by a dedicated operator, if a scram occurs with the valve open.

The 8 hour Completion Time to isolate the line is based on the low probability of a scram occurring while the line is not isolated and *the* ~~unlikelihood~~ of significant CRD seal leakage.

C.1

If any Required Action and associated Completion Time is not met, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 12 hours. The allowed Completion Time of 12 hours is reasonable, based on operating experience, to reach MODE 3 from full power conditions in an orderly manner and without challenging plant systems.