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Detroit Edison
A DTE Energy Company

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U. S. Nuclear Regulatory Commission
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Washington D C 20555-0001

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

Subject: Special Report of Inoperable Main Steam Line Isolation Valve Position Indication

In accordance with Required Action B.1 of Technical Specifications (TS) 3.3.3.1 and the Reporting Requirements in TS 5.6.7, this special report is being submitted to document the inoperability of the open position indication on Main Steam Line Isolation Valve (MSIV), B2103FO28B. Technical Specification 3.3.3.1, Post Accident Monitoring (PAM) Instrumentation requires that the instrumentation for each function in Table 3.3.3.1-1 shall be OPERABLE in Modes 1 and 2. Technical Specification Table 3.3.3.1-1 function 10, Primary Containment Isolation Valve position, requires 2 channels per penetration flow path. On December 22, 2001, it was discovered that the open pushbutton indication light for MSIV B2103FO28B, outboard MSIV in steam line "B", had failed. As an immediate action, the indication bulbs were replaced; however, that had no effect on the indication. The voltage to and from the open limit switch contacts was checked. An open circuit was found across the limit switch contacts for open indication. Since the open light limit switch contacts will not open until the valve is less than 10% open, the loss of indication is not due to valve movement. Had the MSIV moved, the closed light would have come on before the open light went out. All of the other indications on the Reactor Isolation Valve Mimic display, General Electric Transient Analysis Record System (GETARS) and Emergency Response Information System (ERIS) computer support the conclusion that the MSIV is open. Additional indication to support that the

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MSIV is open is the Main Steam Line Flow indication for the "B" steam line which is indicating normal and is consistent with the other three steamlines.

The failure of the open position indication does not prevent the operator from verifying that the MSIV is closed following an accident since alternate indication is available and can be used to verify that the steam line is isolated. The operator can use Main Steam Line flow indication downscale (this indication is credited in UFSAR Section 7.5.1.4.2.3.b for the verification of steam line isolation). Additionally, the operator can use the Reactor Isolation Valve Mimic display in conjunction with the closed indicating light on the backlighted pushbutton to verify that the MSIV is closed. Other alternate indications of the MSIV position are the ERIS display and the GETARS system.

The cause of the failure in the open indication of the valve is either a failure of the limit switch or a loose connection in the limit switch terminal box. These components are located in the Reactor Building first floor in the steam tunnel, a high radiation and high temperature area when the plant is operating. The exact cause will not be known until entry into the steam tunnel is made. The troubleshooting and repair, if performed, require erecting a scaffolding and will result in unnecessary exposure to a high radiation and high temperature environment. Detroit Edison has, therefore, decided to repair this valve indication when the plant is shutdown.

Detroit Edison commits that the open indication on the valve will be restored by the end of the next Refueling Outage (RF09), scheduled in Spring 2003 or earlier if the plant is shutdown for an outage of sufficient duration.

Should you have any questions or require additional information, please contact Mr. Norman K. Peterson of my staff at (734) 586-4258.

Sincerely,

William J. O'Connell

cc: T. J. Kim
M. A. Ring
NRC Resident Office
Regional Administrator, Region III
Supervisor, Electric Operators,
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