

UNITED STATES
NUCLEAR REGULATOR COMMISSION
REGION III
U. S. Nuclear Regulatory Commission
801 Warrenville Road
Lisle, Illinois 60532-4351
March 29, 2001

EA-01-092

Mr. William O'Connor, Jr.
Vice President
Nuclear Generation
Detroit Edison Company
6400 North Dixie Highway
Newport, MI 48166

SUBJECT: NOTICE OF ENFORCEMENT DISCRETION FOR DETROIT EDISON
COMPANY REGARDING FERMI 2 (NOED NO. 01-3-001)

By letter dated March 26, 2001, you requested that the NRC exercise discretion not to enforce compliance with certain actions required in the Fermi 2 Technical Specifications (TS). You stated that on March 28, 2001, at 9:40 a.m. (EST) the allowed outage time specified in TS 3.8.1 "AC Sources - Operating," Required Action A.6 would expire requiring the plant be in at least hot shutdown within the next 12 hours. The allowed outage time of 7 days began at 9:40 a.m. (EST) on March 21, 2001, when emergency diesel generator (EDG) 14 was made inoperable for testing and subsequently failed. You requested that a Notice of Enforcement Discretion (NOED) be issued pursuant to the NRC's policy regarding exercise of discretion for an operating facility as set out in Section VII.C, of the "General Statement of Policy and Procedures for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600. You requested that this discretion permit continued facility operation and be effective for the period of 7 days, from 9:40 a.m. (EST) on March 28, 2001, to 10:40 a.m. (EDT) on April 4, 2001, or until EDG 14 is returned to operable status, whichever occurs first. This letter documents the results of my telephone conversation on March 27, 2001, at 2:12 p.m. (EST) with Paul Fessler and other members of your staff, and the principal NRC participants (listed in the enclosure to this letter), when the NRC orally granted this NOED.

In your letter, you described how, during a 24-hour endurance test of EDG 14, high temperatures were noted on the generator outboard bearing, indicating bearing damage. After the emergency diesel generator was manually shut down, a small fire was noted on the bearing housing and was extinguished by operators. Once the damaged bearing was examined, it was evident that, due to the extensive work necessary to replace the bearing and restore the generator to service, the time needed would exceed Technical Specifications allowed outage time. The root cause of the bearing failure was determined to be a low oil level in the bearing housing. The cause for this low oil level was attributed to a series of errors beginning with relocation of the bearing oil level sight glass during a 1984 modification. Additional indication adjustments made through the years resulted in an indicated "green band" level that permitted an oil level too low for adequate lubrication of the bearing. Subsequent to the failure, plant staff measured the oil levels in emergency diesel generators 11, 12, and 13 and verified that the lubricating oil and the sight glass green bands were at the appropriate levels.

Your evaluation of the safety significance and the potential consequence of extending the allowed outage time to 14 days included the results of risk computations. The results showed an incremental conditional core damage probability of $2.08E-7$ and an incremental conditional large early release probability of $3.66E-8$. Your submittal also stated that eliminating the plant shutdown required by the Technical Specifications would eliminate consequent transitional risk associated with a shutdown and startup of the plant, offsetting the risk associated with the increased time of the diesel outage and resulting in a minimal effect on plant safety. The Fermi onsite power sources consist of four emergency diesel generators (EDGs), EDGs 11 and 12 which feed Division 1, and EDGs 13 and 14 which feed Division 2. There is also one combustion turbine generator that can be aligned to Division 1. Emergency diesel generators 11, 12, and 13 are sufficient for performing the safety functions assumed in the safety analyses. The combustion turbine generator is also available and can power all Division 1 loads by itself. As compensatory measures, your staff proposed that during the extended EDG 14 outage time, no elective maintenance would be performed on the other EDGs, the combustion turbine generator, protected equipment, or opposite train emergency core cooling system equipment. Also no work would be performed in the 120 and 345 KV switchyards that would challenge offsite connection or power availability. Your submittal also indicated that the Fermi Onsite Safety Review organization had reviewed and approved the request for enforcement discretion.

A conference call was conducted on March 27, 2001, between your staff and Region III and NRR staffs to discuss the NOED request. During this call, your staff clarified the submittal in several areas. With regard to a direct, qualitative comparison of the risk associated with continued operation as opposed to the transitional risk of shutting down the plant, your staff indicated that a primary risk consideration was human factors during manipulation of components and systems while performing a plant shutdown and subsequent restart. Your staff concluded that the calculated risk of the 7 day extension was very low and was less than the estimated risk of shutting down the facility. Your staff clarified that the compensatory actions protecting alternate plant equipment included: (1) prohibiting any elective equipment testing and (2) the installation of barriers and signs indicating what equipment was protected during the extended outage of EDG 14. Also, your staff agreed to protect the standby feedwater system as an additional precaution for safe shutdown following a fire. Based on the discussions, your staff also stated that there were no known challenges to grid stability during the 7 day extension.

The NRC accepted your safety rationale, combined with compensatory actions, as an adequate basis for the NOED. NRC resident inspectors had verified the oil levels in the other diesel generators and reviewed recent test results of the other diesel generators. Subsequent to the phone call, the resident inspectors also observed the barriers and placards used to identify protected equipment. The Fermi plant is currently operating at full power. In order to avoid the transient associated with a shutdown and restart, the NRC staff concluded that the requested NOED should be authorized. Based on considerations discussed in the previous paragraphs, the staff concluded that Criterion 1.a of Section B.2.1 and the applicable criteria in Section C.4 of NRC Manual Chapter 9900, "Technical Guidance, Operation - Notice of Enforcement Discretion," were satisfied. Criterion 1.a of Section B.2.1 states that for an operating plant, the

NOED is intended to avoid an undesirable transient as a result of forcing compliance with the license and, thus, minimize the potential safety consequences and operational risks.

On the basis of the staff's evaluation of your request, we have concluded that a NOED is warranted because we are clearly satisfied that this action involves no safety impact, is consistent with the enforcement policy and staff guidance, and has no adverse impact on public health and safety. Therefore, it is our intention to exercise discretion not to enforce compliance with TS 3.8.1 "AC Sources - Operating," Required Action A.6, which would require that after 7 days from 9:40 a.m. (EST) on March 21, 2001, if emergency diesel Generator 14 was not restored to operable status, the plant be in at least hot shutdown within the next 12 hours. This discretion would apply for the 7 days from 9:40 a.m. (EST) on March 28, 2001 to 10:40 a.m. (EDT) on April 4, 2001, or until EDG 14 is returned to service, whichever occurs first.

As stated in the Enforcement Policy, action will be taken, to the extent that violations were involved, for the root cause that led to the noncompliance for which this NOED was necessary.

Sincerely,

/Original signed by Steven A. Reynolds Acting for/

John A. Grobe, Director
Division of Reactor Safety

Docket No. 50-341
License No. NPF-43

Enclosure: As Stated

cc w/encl.: N. Peterson, Director, Nuclear Licensing
P. Marquardt, Corporate Legal Department
Compliance Supervisor
R. Whale, Michigan Public Service Commission
Michigan Department of Environmental Quality
Monroe County, Emergency Management Division
Emergency Management Division
MI Department of State Police

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***See previous concurrence**

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Principal NRC Staff Members Granting NOED NO. 01-3-001

Claudia Craig, Chief, Section 1 and acting Project Director, Project Directorate III, Division of Licensing and Project Management, NRR

Mohammed Shuaibi, Project Manager, Section 1, Project Directorate III Division of Licensing and Project Management, NRR

Edward Tomlinson, Senior Reactor Engineer, Technical Specifications Branch, Division of Regulatory Improvement Programs, NRR

Ohm Chopra, Electrical Engineer, Electrical Engineering Section, Electrical and Instrumentation and Controls Branch, Division of Engineering, NRR

Cornelius Holden, Chief, Electrical Engineering Section, Electrical and Instrumentation and Controls Branch, Division of Engineering, NRR

Kriss Kennedy, Senior Reactor Analyst, Division of Reactor Safety, Region IV

Melvyn Leach, Team Leader, Technical Support Section, Division of Reactor Projects, Region III

Robert Lerch, Project Engineer, Branch 1, Division of Reactor Projects, Region III

Stephen Campbell, Senior Resident Inspector-Fermi, Branch 1, Division of Reactor Projects, Region III

Joe Larizza, Resident Inspector- Fermi, Branch 1, Division of Reactor Projects; Region III

Mike Parker, Senior Reactor Analyst, Division of Reactor Safety, Region III

Enclosure