

May 20, 1998

Mr. Douglas R. Gipson
Senior Vice President
Nuclear Generation
Detroit Edison Company
6400 North Dixie Highway
Newport, MI 48166

SUBJECT: ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT
IMPACT - REQUEST FOR EXEMPTION FROM 10 CFR 70.24 REGARDING
CRITICALITY ACCIDENT REQUIREMENTS, FERMI 2 (TAC NO. MA1645)

Dear Mr. Gipson:

Enclosed is a copy of the Environmental Assessment and Finding of No Significant Impact related to your application for exemption dated April 27, 1998. Your application requested an exemption from certain requirements of 10 CFR 70.24, "Criticality Accident Requirements."

The assessment is being forwarded to the Office of the Federal Register for publication.

Sincerely,

ORIGINAL SIGNED BY

Andrew J. Kugler, Project Manager
Project Directorate III-1
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Docket No. 50-341

Enclosure: As stated

cc w/encl: See next page

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Mr. Douglas R. Gipson
Detroit Edison Company

Fermi 2

cc:

John Flynn, Esquire
Senior Attorney
Detroit Edison Company
2000 Second Avenue
Detroit, Michigan 48226

Drinking Water and Radiological
Protection Division
Michigan Department of
Environmental Quality
3423 N. Martin Luther King Jr Blvd
P. O. Box 30630 CPH Mailroom
Lansing, Michigan 48909-8130

U.S. Nuclear Regulatory Commission
Resident Inspector's Office
6450 W. Dixie Highway
Newport, Michigan 48166

Monroe County Emergency Management
Division
963 South Raisinville
Monroe, Michigan 48161

Regional Administrator, Region III
U.S. Nuclear Regulatory Commission
801 Warrenville Road
Lisle, Illinois 60532-4351

Norman K. Peterson
Director, Nuclear Licensing
Detroit Edison Company
Fermi 2 - 280 TAC
6400 North Dixie Highway
Newport, Michigan 48166

Mike McMullen [5]
Environmental Review Coordinator
EPA Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3507

August 1997

UNITED STATES NUCLEAR REGULATORY COMMISSIONDETROIT EDISON COMPANYDOCKET NO. 50-341FERMI 2ENVIRONMENTAL ASSESSMENT AND FINDING OFNO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an exemption from certain requirements of its regulations to Facility Operating License No. NPF-43, issued to Detroit Edison Company (the licensee), for operation of the Fermi 2 plant, located in Monroe County, Michigan.

ENVIRONMENTAL ASSESSMENTIdentification of the Proposed Action:

The proposed action would exempt the licensee, in certain cases, from the requirements of 10 CFR 70.24(a), which, in part, requires a monitoring system in each area in which special nuclear material is handled, used, or stored, that will energize clear audible alarms if accidental criticality occurs.

The proposed action is in accordance with the licensee's application for exemption dated April 27, 1998.

The Need for the Proposed Action:

The purpose of 10 CFR 70.24 is to ensure that if a criticality were to occur during the handling of special nuclear material, personnel would be alerted to that fact and would take appropriate action. At a commercial nuclear power plant, the inadvertent criticality with which 10 CFR 70.24 is concerned could occur during fuel handling operations. The special nuclear

material that could be assembled into a critical mass at a commercial nuclear power plant is in the form of nuclear fuel; the quantity of other forms of special nuclear material that is stored onsite in any given location (e.g., calibration sources or in-core instrumentation that is not in use) is small enough to preclude achieving a critical mass. Because the fuel is not enriched beyond 5.0 weight percent uranium-235, and because commercial nuclear plant licensees have procedures and features that are designed to prevent inadvertent criticality, the staff has determined that it is unlikely that an inadvertent criticality could occur due to the handling of special nuclear material at a commercial power reactor. Therefore, an exemption from the requirements of 10 CFR 70.24 in selected cases will not have a negative impact on the safety of personnel during the handling of special nuclear materials at commercial power reactors.

Environmental Impacts of the Proposed Action:

The Commission has completed its evaluation of the proposed action and concludes that inadvertent or accidental criticality will be precluded through compliance with the Fermi 2 Technical Specifications, the design of the fuel storage racks providing geometric spacing of fuel assemblies in their storage locations, and administrative controls imposed on fuel handling procedures.

The proposed exemption will not result in an increase in the probability or consequences of accidents, affect radiological plant effluents or offsite dose, or cause any significant occupational exposures. Therefore, there are no radiological impacts associated with the proposed exemption.

The proposed exemption will not result in a change in nonradiological effluents and will have no other nonradiological environmental impact.

Accordingly, the Commission concludes that there are no significant environmental impacts associated with the proposed action.

Alternatives to the Proposed Action:

Since the Commission has concluded that there is no significant environmental impact associated with the proposed action, any alternatives with equal or greater environmental impact need not be evaluated. As an alternative to the proposed exemption, the staff considered denial of the requested exemption. Denial of the request would result in no change in current environmental impacts. The environmental impacts of the proposed action and the alternative action are similar.

Alternative Use of Resources:

This action does not involve the use of any resources not previously considered in the Final Environmental Statement related to the operation of Fermi 2 dated August 1981.

Agencies and Persons Consulted:

In accordance with its stated policy, on May 7, 1998, the staff consulted with the Michigan State official, Dennis Hahn, of the Michigan Department of Environmental Quality, regarding the environmental impact of the proposed action. The State official had no comments.

FINDING OF NO SIGNIFICANT IMPACT

Based upon the environmental assessment, the Commission concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the Commission has determined not to prepare an environmental impact statement for the proposed action.

For further details with respect to the proposed action, see the licensee's letter dated April 27, 1998, which is available for public inspection at the Commission's Public Document

Room located at the Gelman Building, 2120 L Street, NW., Washington, DC, and at the local public document room located at the Monroe County Library System, 3700 South Custer Road, Monroe, Michigan 48161.

Dated at Rockville, Maryland, this 20th day of May 1998.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, appearing to read "Andrew J. Kugler". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Andrew J. Kugler, Project Manager
Project Directorate III-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation