

NOV 27 1984

Docket No.: 50-341

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Dr. Wayne Jens
Vice President - Nuclear Operations
The Detroit Edison Company
200 Second Avenue
Detroit, Michigan 48226

Dear Dr. Jens:

Subject: Enrico Fermi Atomic Power Plant, Unit 2 - Draft License

As you are aware, the staff is preparing a license for the Enrico Fermi Atomic Power Plant, Unit 2. Enclosed is a draft copy of this license (without attachments and appendices). It is provided for your information, review and comment to insure that it accurately reflects the commitments required of you as described in the FSAR, SER, and other documents. We request that you review the draft license and provide any comments in writing by December 7, 1984.

You should note that not all license conditions have been finalized. Specifically, License Condition 7 (Fire Protection) is still under review as is Condition 8 (Low-Pressure Turbine-Disc Inspection); Condition 10 (Safeguard Contingency Plan); Condition 13 (Inadequate Core Cooling); and Condition 15 (Non-Qualified Surface Coatings Inside Containment). We will transmit these for your review and comment when they are completed.

If you have any questions regarding this draft license, contact the Fermi-2 Project Manager, M. D. Lynch, at (301) 492-7050.

Sincerely,

ORIGINAL SIGNED BY:

Thomas M. Novak, Assistant Director
for Licensing
Division of Licensing

Enclosure: As stated

cc: See next page

(Changes made by ES 11/27/84)

*See previous concurrences

LB#1:DL	LB#1:DL	LB#1:DL
DLynch:kab	MRushbrook	BJYoungblood
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Dr. Wayne Jens
Vice President - Nuclear Operations
The Detroit Edison Company
2000 Second Avenue
Detroit, Michigan 48226

cc: Mr. Harry H. Voigt, Esq.
LeBoeuf, Lamb, Leiby & MacRae
1333 New Hampshire Avenue, N. W.
Washington, D. C. 20036

Peter A. Marquardt, Esq.
Co-Counsel
The Detroit Edison Company
2000 Second Avenue
Detroit, Michigan 48226

Mr. William J. Fahrner
Project Manager - Fermi 2
The Detroit Edison Company
2000 Second Avenue
Detroit, Michigan 48226

Mr. O. Keener Earle
Supervisor-Licensing
The Detroit Edison Company
Enrico Fermi Unit 2
6400 No. Dixie Highway
Newport, Michigan 48166

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

Mr. Harry Tauber
Group Vice President
The Detroit Edison Company
2000 Second Avenue
Detroit, Michigan 48226

Ronald C. Callen
Adv. Planning Review Section
Michigan Public Service Commission
6545 Mercantile Way
P. O. Box 30221
Lansing, Michigan 48909

Mr. James G. Keppler
U. S. Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, Illinois 60137



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

DETROIT EDISON COMPANY

WOLVERINE POWER SUPPLY COOPERATIVE, INCORPORATED

DOCKET NO. 50-341

ENRICO FERMI ATOMIC POWER PLANT, UNIT 2

FACILITY OPERATING LICENSE

License No. NPF-33

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for license filed by the Detroit Edison Company and Wolverine Power Supply Cooperative, Incorporated (licensees) complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I, and all required notifications to other agencies or bodies have been duly made;
 - B. Construction of the Enrico Fermi Atomic Power Plant, Unit 2, (the facility) has been substantially completed in conformity with Construction Permit No. CPPR-87 and the application, as amended, the provisions of the Act, and the regulations of the Commission;
 - C. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission, (except as exempted from compliance in Section 2.D below);
 - D. There is reasonable assurance: (i) that the activities authorized by this operating license can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
 - E. The Detroit Edison Company* is technically qualified to engage in the activities authorized by this license in accordance with the Commission's regulations set forth in 10 CFR Chapter I;
 - F. Detroit Edison Company and Wolverine Power Supply Cooperative, Incorporated, have satisfied the applicable provisions of 10 CFR Part 140 "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;

*Detroit Edison Company is authorized to act as agent for Wolverine Power Supply Cooperative, Incorporated, and has exclusive responsibility and control over the physical construction, operation and maintenance of the facility.

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- G. The issuance of this license will not be inimical to the common defense and security or to the health and safety of the public;
 - H. After weighing the environmental, economic, technical and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of this Facility Operating License No. NPF-33, subject to the conditions for protection of the environment set forth in the Environmental Protection Plan attached as Appendix B, is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied; and
 - I. The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40 and 70.
2. Based on the foregoing findings regarding this facility, Facility Operating License No. NPF-33 is hereby issued to the Detroit Edison Company and the Wolverine Power Supply Cooperative, Incorporated (the licensees) to read as follows:
- A. The license applies to the Enrico Fermi Atomic Power Plant, Unit 2, a boiling water nuclear reactor and associated equipment (the facility), owned jointly by the Detroit Edison Company, and Wolverine Power Supply Cooperative, Incorporated. The facility is located in Frenchtown Township, Monroe County, Michigan, and is described in the licensees' "Final Safety Analysis Report", as supplemented and amended, and in the licensees' Environmental Report, as supplemented and amended.
 - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses the Detroit Edison Company (DECo) and the Wolverine Power Supply Cooperative, Incorporated:
 - (1) DECo and Wolverine Power Supply Cooperative, Incorporated, pursuant to Section 103 of the Act and 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," to possess, use and operate the facility at the designated location in Monroe County, Michigan, in accordance with the procedures and limitations set forth in this license;
 - (2) DECo, pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;
 - (3) DECo, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use at any time any byproduct, source and special nuclear material such as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

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- (4) DECo, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source of special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
 - (5) DECo, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
- C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The Detroit Edison Company is authorized to operate the facility at reactor core power levels not in excess of 3292 megawatts thermal (100% power) in accordance with the conditions specified herein and in Attachment 1 to this license. The preoperational tests, startup tests and other items identified in Attachment 1 to this license shall be completed as specified. Attachment 1 is hereby incorporated into this license. Pending Commission approval, this license is restricted to power levels not to exceed 5 percent of full power (165 megawatts thermal);

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. DECo shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan;

(3) Environmental Qualification (Section 3.11, SSER #5)*

Prior to November 30, 1985, DECo shall environmentally qualify all electrical equipment according to the provisions of 10 CFR 50.49.

*The parenthetical notation following the title of many license conditions denotes the section of the Safety Evaluation Report and/or its supplements wherein the license condition is discussed.

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(4) Hydrodynamic Stability (Section 4.4.1, SER)

Prior to startup following the first refueling outage, DECo shall provide for NRC staff review and approval, a revised stability analysis.

(5) Pipe Breaks in the Scram System (Section 6.3.4, SSER #5)

Within two years or prior to startup following the next refueling outage, whichever is later, after the issuance of the generic SER resolving the NRC staff concerns in NUREG-0803, DECo shall have implemented all actions and modifications specified by the NRC staff in its generic SER.

(6) Study of Multiple Control System Failures (Section 7.7.2, SER)

Prior to startup following the first refueling outage, DECo shall provide the NRC staff for its review and approval, any analysis or modifications needed to resolve the impact of control system failures due to a failure or malfunction of any power sources or sensors which provide power or signals to two or more control systems.

(7) Modifications for Fire Protection (Section 9.5.1, SSER #5)

- (a) DECo shall maintain in effect all provisions of the approved fire protection program as described in its Final Safety Analysis Report for the facility through Amendment 59 and as approved in the SER through Supplement No. 5, subject to provisions (b) and (c) below.
- (b) DECo may make no change to the approved fire protection program which would decrease the level of fire protection in the plant without prior approval of the Commission. To make such a change, DECo must submit an application for a license amendment pursuant to 10 CFR 50.90.
- (c) DECo may make changes to features of the approved fire protection program which do not decrease the level of fire protection without prior Commission approval after such features have been installed as approved, provided such changes do not otherwise involve a change in a license condition or a technical specification or result in an unreviewed safety question (see 10 CFR 50.59). However, DECo shall maintain, in an auditable form, a current record of all such changes including an analysis of the effects of the change on the fire protection program and shall make such records available to NRC inspectors upon request. All changes to the approved program made without prior Commission approval shall be reported to the Director of the Office of Nuclear Reactor Regulation, together with supporting analyses, on an annual basis.
(ADDITIONAL INFORMATION TO BE SUPPLIED BY CMEB)

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- (8) Low-Pressure Turbine-Disc Inspection (Section 10.2.2, SER)
(TO BE SUPPLIED BY MTEB, DE)
- (9) Retention of Persons with BWR Operating Experience on Shift
(Section 13.1, SSER #5)

At all times the plant is in an operating condition other than cold shutdown or refueling, DECo shall have a licensed senior reactor operator on each shift who has had at least six months of hot operating experience on a similar type plant, including at least six weeks at power levels greater than 20 percent of full power, and who has had start-up and shutdown experience. For those shifts where such an individual is not available on the plant staff, DECo shall provide an advisor who has had at least four years of power plant experience, including two years of nuclear plant experience, and who has had at least one year of experience on shift as a licensed senior operator at a similar type facility. Use of advisors who were licensed only at the reactor operator level will be evaluated by the NRC staff on a case-by-case basis. As a minimum, DECo shall train these advisors on the procedures, technical specifications and plant systems for the Fermi-2 facility and DECo shall examine the advisors on these topics at a level which will assure their familiarity with the plant. For each shift, the remainder of the shift crew shall be trained in the role of the advisors. The training of the advisors and the remainder of the shift crew shall be completed prior to achieving initial criticality. DECo shall certify to the NRC staff the names of the advisors who have been examined and have been determined by DECo to be competent to provide advice to the operating shifts prior to achieving criticality. These advisors shall be retained until at least one of the senior operators on each shift has the required experience. The NRC staff shall be notified at least 30 days prior to the release of any special assigned advisor who has been provided in accordance with this license condition.

- (10) Implementation of Safeguards Contingency Plan (Section 13.5, SSER #5)
(TO BE SUPPLIED BY SGPR, NMSS)
- (11) Post-Fuel-Loading Initial Test Program (Section 14, SER)

DECo shall conduct the post-fuel-loading initial test program described in Chapter 14 of the FSAR, as amended, without making any major modifications unless such modifications have prior NRC approval. Major modifications are defined as:

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- (a) Elimination of any safety-related test;*
 - (b) Modification of objectives, test methods, or acceptance criteria for any safety-related test;
 - (c) Performance of any safety-related test at a power level different from that stated in the FSAR by more than five percent of rated power;
 - (d) Failure to satisfactorily complete the entire initial startup test program by the time core burnup equals 120 effective full power days;
 - (e) Deviation from the initial test program administrative procedures or quality assurance controls described in the FSAR; and
 - (f) Delays in the test program in excess of 30 days (14 days if the power level exceeds 50 percent of rated power), concurrent with power operation. If continued power operation is desired during a delay, DECo shall provide the NRC with justification that adequate testing has been performed and evaluated to demonstrate that the facility can be operated at the planned power level with reasonable assurance that the health and safety of the public will not be endangered.
- (12) Demonstration of Post-Accident Sampling System (Section 22, Item II.B.3, SSER #5)
- DECo shall have installed and have operational in the Fermi-2 facility, its post-accident sampling system prior to operating the facility at power levels greater than five percent of full power.
- (13) Instrumentation for Detection of Inadequate Core Cooling (Section 22, Item II.F.2, SER and SSER #1)
- (MAY BE DELETED BY ICSB, DSI)
- (14) Detailed Control Room Design Review (Section 22, Item I.D.1, SSER #5)
- (a) DECo shall comply with the NRC staff requirements for the conduct of a detailed control room design review (DCRDR) contained in Supplement No. 1 to NUREG-0737. DECo shall submit a summary report of its DCRDR prior to September 30, 1985.

*Safety-related tests are those tests which verify the design, construction, and operation of safety-related systems, structures and equipment.

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- (b) DECo shall address each control room design deficiency identified and designated as having a Priority 3 rating in the NRC staff's report regarding the Fermi-2 facility entitled, "Control Room Design Review/Audit Report," dated May 26, 1981, during the conduct of its DCRDR. Each such finding shall be reported on in DECo's summary report of its DCRDR. DECo's DCRDR Summary Report shall also describe the disposition of any other findings which it committed in its four letters to the NRC staff on this matter dated June 9, 1981; July 31, 1981; July 25, 1984; and September 27, 1984, to evaluate and/or implement after issuance of this operating license.

(15) Non-qualified Surface Coatings Inside Containment (SSER #5)

(TO BE SUPPLIED BY CMEB, DE)

- D. An exemption from certain requirements of Appendix G to 10 CFR Part 50, is described in the Safety Evaluation Report. This exemption is authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest. Therefore, this exemption is hereby granted pursuant to 10 CFR 50.12. With the granting of this exemption, the facility will operate, to the extent authorized herein, in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission.
- E. DECo shall maintain in effect and fully implement all provisions of the Commission approved Physical Security Plan, Guard Training and Qualification Plan, and Contingency Plan, including amendments made pursuant to the authority of 10 CFR 50.54(p). The approved plans which contain Safeguards Information and are required to be protected against unauthorized disclosure in accordance with 10 CFR 73.21 are collectively entitled: (ADDITIONAL INFORMATION TO BE SUPPLIED BY SGPR, NMSS)
- F. With the exception of 2.C(2) DECo shall report any violations of the requirements contained in Section 2.C of this license within 24 hours. Initial notification shall be made in accordance with the provisions of 10 CFR 50.72 with written followup in accordance with the procedures described in 10 CFR 50.73(b), (c), and (e).
- G. The licensees shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1954, as amended, to cover public liability claims.

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H. This license is effective as of the date of issuance and shall expire at Midnight on 2024.

FOR THE NUCLEAR REGULATORY COMMISSION

Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Attachments/Appendices:

1. Attachment 1 - Preoperational Tests
2. Attachment 2 - Emergency Response Capabilities
3. Appendix A - Technical Specifications (NUREG-)
4. Appendix B - Environmental Protection Plan

Date of Issuance:

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