

July 28, 1988

Corrected Copy

Docket No. 50-341

Mr. B. Ralph Sylvia  
Group Vice President - Nuclear  
Operations  
Detroit Edison Company  
6400 North Dixie Highway  
Newport, Michigan 48166

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Dear Mr. Sylvia:

SUBJECT: AMENDMENT NO.24 TO FACILITY OPERATING LICENSE NO. NPF-43:  
RADIOACTIVE EFFLUENT MONITORING INSTRUMENTATION (TAC NO. 67748)

The Commission has issued the enclosed Amendment No.24 to Facility Operating License No. NPF-43 for the Fermi-2 facility. This amendment consists of changes to the Plant Technical Specifications (TSs) in response to your letter dated March 28, 1988 (NRC 88-0028).

The amendment revises the provisions in the TSs to change the Action and Table Notations for the Gaseous and Liquid Effluent Monitoring Instrumentation and the Semiannual Radioactive Effluent Release Report.

Copies of the Safety Evaluation supporting this amendment and the notice of issuance are also enclosed.

Sincerely,

*Theodore R Quay*

Theodore R. Quay, Project Manager  
Project Directorate III-1  
Division of Reactor Projects - III,  
IV, V & Special Projects

Enclosures:

1. Amendment No. 24 to NPF-43
2. Safety Evaluation
3. Notice of Issuance

cc w/enclosures:  
See next page

OFFICE: PD31:DRSP  
SURNAME: RIngram  
DATE: 06/28/88

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06/30/88

D/PD31: DRSP  
MVirgilio  
06/30/88

OGC  
*[Signature]*  
06/25/88

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*[Handwritten signatures and initials]*  
DF01  
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UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D. C. 20555

July 28, 1988

Docket No. 50-341

Mr. B. Ralph Sylvia  
Group Vice President - Nuclear  
Operations  
Detroit Edison Company  
6400 North Dixie Highway  
Newport, Michigan 48166

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cc w/enclosures:  
See next page

Mr. B. Ralph Sylvia  
Detroit Edison Company

Fermi-2 Facility

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

DETROIT EDISON COMPANY

WOLVERINE POWER SUPPLY COOPERATIVE, INCORPORATED

DOCKET NO. 50-341

FERMI-2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No.24  
License No. NPF-43

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by the Detroit Edison Company (the licensee) dated March 28, 1988, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment 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;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. NPF-43 is hereby amended to read as follows:

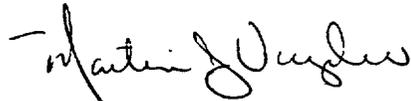
Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No.24, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. DECo shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

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3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Martin J. Virgilio, Director  
Project Directorate III-1  
Division of Reactor Projects - III, IV, V  
& Special Projects

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: July 28, 1988

ATTACHMENT TO LICENSE AMENDMENT NO. 24

FACILITY OPERATING LICENSE NO. NPF-43

DOCKET NO. 50-341

Replace the following pages of the Appendix "A" Technical Specifications with the attached pages. The revised pages are identified by Amendment number and contain a vertical line indicating the area of change. The corresponding overleaf pages are also provided to maintain document completeness.

REMOVE

3/4 3-71  
3/4 3-73  
3/4 3-76  
3/4 3-80  
6-20

INSERT

3/4 3-71  
3/4 3-73  
3/4 3-76  
3/4 3-80  
6-20

## INSTRUMENTATION

### RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

#### LIMITING CONDITION FOR OPERATION

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3.3.7.11 The radioactive liquid effluent monitoring instrumentation channels shown in Table 3.3.7.11-1 shall be OPERABLE with their alarm/trip setpoints set to ensure that the limits of Specification 3.11.1.1 are not exceeded. The alarm/trip setpoints of these channels shall be determined and adjusted in accordance with the methodology and parameters in the OFFSITE DOSE CALCULATION MANUAL (ODCM).

APPLICABILITY: At all times.

#### ACTION:

- a. With a radioactive liquid effluent monitoring instrumentation channel alarm/trip setpoint less conservative than required by the above specification, immediately suspend the release of radioactive liquid effluents monitored by the affected channel, or declare the channel inoperable, or change the setpoint so it is acceptably conservative.
- b. With less than the minimum number of radioactive liquid effluent monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 3.3.7.11-1. Restore the inoperable instrumentation to OPERABLE status within 30 days and, if unsuccessful, explain why this inoperability was not corrected in a timely manner in the next Semiannual Radioactive Effluent Release Report.
- c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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4.3.7.11 Each radioactive liquid effluent monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, SOURCE CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST operations at the frequencies shown in Table 4.3.7.11-1.

TABLE 3.3.7.11-1 (Continued)

TABLE NOTATIONS

- ACTION 110 -** With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases from this pathway may continue provided that prior to initiating a release:
- a. At least two independent samples are analyzed in accordance with Specification 4.11.1.1.1, and
  - b. At least two technically qualified individuals independently verify the release rate calculations and discharge line valving;

Otherwise, suspend release of radioactive effluents via this pathway.

- ACTION 111 -** With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided that grab samples are collected and analyzed at least once per 12 hours for gross radioactivity (beta or gamma) at a lower limit of detection of at least  $10^{-7}$  microcurie/ml, for Cs-137. Otherwise, suspend release of radioactive effluents via this pathway.

- ACTION 112 -** With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided the flow rate is estimated at least once per 4 hours during actual releases. Pump performance curves generated in place may be used to estimate flow. Otherwise, suspend release of radioactive effluents via this pathway.

TABLE 4.3.7.11-1 (Continued)

TABLE NOTATIONS

- (1) The CHANNEL FUNCTIONAL TEST shall also demonstrate that automatic isolation of this pathway occurs if any of the following conditions exists:
  1. Instrument indicates measured levels above the alarm/trip setpoint.
  2. Circuit failure.
- (2) The CHANNEL FUNCTIONAL TEST shall also demonstrate that control room alarm annunciation occurs if any of the following conditions exists:
  1. Instrument indicates measured levels above the alarm setpoint.
  2. Circuit failure.
  3. Instrument indicates a downscale failure.
  4. Instrument controls not set in operate mode.
- (3) The initial CHANNEL CALIBRATION shall be performed using National Bureau of Standards traceable sources. These standards shall permit calibrating the system over the range of energy and measurement expected during normal operation and anticipated operational occurrences. For subsequent CHANNEL CALIBRATION, sources that have been related to the initial calibration or are National Bureau of Standards traceable shall be used.
- (4) CHANNEL CHECK shall consist of verifying indication of flow during periods of release. CHANNEL CHECK shall be made at least once per 24 hours on days on which continuous, periodic, or batch releases are made.
- (5) The CHANNEL FUNCTIONAL TEST shall also demonstrate that control room alarm annunciation occurs if any of the following conditions exists:
  1. Instrument indicates measured levels above the alarm setpoint.
  2. Circuit failure.
  3. Instrument indicates a downscale failure.

FERMI - UNIT 2

3/4 3-79

TABLE 3.3.7.12-1 (Continued)

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABILITY</u>	<u>ACTION</u>
6. RADWASTE BUILDING VENTILATION MONITORING SYSTEM			
a. Noble Gas Activity Monitor	1	*	121
b. Iodine Sampler	1	*	122
c. Particulate Sampler	1	*	122
d. Sampler Flow Rate Monitor	1	*	123
7. ONSITE STORAGE BUILDING VENTILATION EXHAUST RADIATION MONITOR			
a. Noble Gas Activity Monitor	1	*	121
b. Iodine Sampler	1	*	122
c. Particulate Sampler	1	*	122
d. Sampler Flow Rate Monitor	1	*	123

## ADMINISTRATIVE CONTROLS

### ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT (Continued)

the report, the report shall be submitted noting and explaining the reasons for the missing results. If possible, the missing data shall be submitted as soon as possible in a supplementary report.

The reports shall also include the following: a summary description of the radiological environmental monitoring program; at least two legible maps\* covering all sampling locations keyed to a table giving distances and directions from the centerline of one reactor; the results of licensee participation in the Interlaboratory Comparison Program, required by Specification 3.12.3; discussion of all deviations from the sampling schedule of Table 3.12.1-1; discussion of all analyses in which the LLD required by Table 4.12.1-1 was not achievable.

### SEMIANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT\*\*

6.9.1.8 Routine Semiannual Radioactive Effluent Release Reports covering the operation of the unit during the previous 6 months of operation shall be submitted within 60 days after January 1 and July 1 of each year. The period of the first report shall begin with the date of initial criticality.

The Semiannual Radioactive Effluent Release Reports shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the unit as outlined in Regulatory Guide 1.21, "Measuring, Evaluating, and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents from Light-Water-Cooled Nuclear Power Plants," Revision 1, June 1974, with data summarized on a quarterly basis following the format of Appendix B thereof.

The Semiannual Radioactive Effluent Release Report to be submitted within 60 days after January 1 of each year shall include an annual summary of hourly meteorological data collected over the previous year. This annual summary may be either in the form of an hour-by-hour listing on magnetic tape of wind speed, wind direction, atmospheric stability, and precipitation (if measured), or in the form of joint frequency distributions of wind speed, wind direction, and atmospheric stability.\*\*\* This same report shall include an assessment of the radiation doses due to the radioactive liquid and gaseous effluents released from the unit or station during the previous calendar year. This same report shall also include an assessment of the radiation doses from radioactive liquid

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\*One map shall cover stations near the SITE BOUNDARY; a second shall include the more distant stations.

\*\*A single submittal may be made for a multiple unit station. The submittal should combine those sections that are common to all units at the station; however, for units with separate radwaste systems, the submittal shall specify the releases of radioactive material from each unit.

\*\*\*In lieu of submission with the first half year Semiannual Radioactive Effluent Release Report, the licensee has the option of retaining this summary of required meteorological data on site in a file that shall be provided to the NRC upon request.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
SUPPORTING AMENDMENT NO. 24 TO FACILITY OPERATING LICENSE NO. NPF-43

DETROIT EDISON COMPANY

WOLVERINE POWER SUPPLY COOPERATIVE, INCORPORATED

FERMI-2

DOCKET NO. 50-341

1.0 INTRODUCTION

By letter dated March 28, 1988, the Detroit Edison Company (DECo or the licensee) requested amendment to the Technical Specifications (TSs) appended to Facility Operating License No. NPF-43 for Fermi-2. The proposed amendment would change TS 3/4.3.7.11, "Radioactive Liquid Effluent Monitoring Instrumentation," TS 3/4.3.7.12, "Radioactive Gaseous Effluent Monitoring Instrumentation," and TS 6.9.1.8, "Semiannual Radioactive Effluent Release Report," to modify the Action and Table Notations to allow continued use of the release pathways for which effluent monitoring instrumentation may not be operable provided that grab samples and analyses and/or flow rate calculations are made at specified frequencies. The proposed change would also clarify the reporting requirements consistent with the changes requested in TSs 3/4.3.7.11 and 3/4.3.7.12.

2.0 EVALUATION

TSs 3/4.3.7.11 and 3/4.3.7.12 currently require termination of all releases, via a pathway for which an effluent monitor is inoperable, after 30 days or 14 days as appropriate regardless of any sampling, analysis or calculational capabilities available at that time. This requirement, in most cases, will necessitate a plant shutdown.

The Fermi-2 TSs 3/4.3.7.11 and 3/4.3.7.12 were, in part, based upon NUREG-0473, "Standard Radiological Effluent Technical Specifications for BWRs," Revision 1 (Standard RETS). Subsequent to the issuance of the Fermi-2 Operating License, the NRC staff clarified the intent of the RETS, namely, that alternative monitoring techniques may be used, with no restricted time limitations, to assess the effluents should the primary monitoring means not be available. The RETS 30-day requirement is only intended as a reporting requirement for inoperable instrumentation. Furthermore, TSs 3/4.3.7.11 and 3/4.3.7.12 contain exclusions from the applicability of TSs 3.0.3 and 3.0.4. This indicates that it was not the staff intention that a plant shutdown be required for situations covered by compensatory actions.

The NRC staff finds that the proposed changes incorporate the wording of present staff guidance and appropriately cover compensatory measures in the event of

inoperable primary monitoring. Thus, the staff finds that the licensee's proposed changes to their RETS meet the intent of the NRC staff's model RETS for BWRs, NUREG-0473, Revision 2, February 1, 1980, and are, therefore, acceptable.

### 3.0 ENVIRONMENTAL CONSIDERATION

An Environmental Assessment and Finding of No Significant Impact has been issued for this amendment (53 FR 28081, July 26, 1988).

### 4.0 CONCLUSION

We have concluded, based on the considerations discussed above, that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: Wayne Meinke

Dated: July 28, 1988

UNITED STATES NUCLEAR REGULATORY COMMISSION  
DETROIT EDISON COMPANY  
WOLVERINE POWER SUPPLY COOPERATIVE, INCORPORATED  
DOCKET NO. 50-341  
NOTICE OF ISSUANCE OF AMENDMENT TO  
FACILITY OPERATING LICENSE

The United States Nuclear Regulatory Commission (the Commission) has issued Amendment No. 24 to Facility Operating License No. NPF-43, issued to the Detroit Edison Company and Wolverine Power Supply Cooperative, Inc. (the licensees), which revised the Technical Specifications (TSs) for operation of Fermi-2 located in Monroe County, Michigan. The amendment is effective as of the date of issuance.

The amendment allows continued use of release pathways for which effluent monitoring instrumentation is not operable provided grab samples and analysis and/or flow rate calculations are made at the specified frequencies.

The application for amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings, as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment.

Notice of Consideration of Issuance of Amendment to Facility Operating License and Opportunity for Hearing in connection with this action was published in the FEDERAL REGISTER on May 13, 1988 (53 FR 17130). No request for hearing or petition to intervene was filed following this notice.

Also in connection with this action, the Commission prepared an Environmental Assessment and Finding of No Significant Impact which was published in the FEDERAL REGISTER on July 26, 1988 at 53 FR 28081.

For further details with respect to this action, see (1) the application for amendment dated March 28, 1988, (2) Amendment No. 24 to License No. NPF-43, and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D.C. 20555, and at the Monroe County Library System, 3700 South Custer Road, Monroe, Michigan 48161. A copy of items (2) and (3) may be obtained upon request addressed to the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Reactor Projects - III, IV, V and Special Projects.

Dated at Rockville, Maryland, this 28th day of July .

FOR THE NUCLEAR REGULATORY COMMISSION



Theodore R. Quay, Project Manager  
Project Directorate III-1  
Division of Reactor Projects - III,  
IV, V & Special Projects