



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

January 24, 2011

Mr. Jack M. Davis
Senior Vice President and
Chief Nuclear Officer
Detroit Edison Company
Fermi 2 - 210 NOC
6400 North Dixie Highway
Newport, MI 48166

SUBJECT: FERMI 2 - ISSUANCE OF AMENDMENT RE: REVISE THE CORE SPRAY
FLOW REQUIREMENT OF TECHNICAL SPECIFICATION SURVEILLANCE
TESTS (TAC NO. ME3011)

Dear Mr. Davis:

The U.S. Nuclear Regulatory Commission has issued the enclosed Amendment No. 184 to Facility Operating License No. NPF-43 for the Fermi 2 facility. The amendment consists of changes to the Technical Specifications in response to your application dated January 4, 2010 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML100050046), supplemented by letter dated October 22, 2010 (ADAMS Accession No. ML102950489). The amendment revises the core spray flow requirement in the Technical specifications Surveillance Requirements 3.5.1.8 and 3.5.2.6 from 6350 gallons per minute (gpm) to 5725 gpm (at a discharge head corresponding to a reactor pressure of 100 psig) consistent with the flow assumed in the Emergency Core Cooling System safety analysis evaluations.

A copy of our safety evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

A handwritten signature in black ink, appearing to read "Mahesh L. Chawla".

Mahesh L. Chawla, Project Manager
Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-341

Enclosures:

1. Amendment No. 184 to NPF-43
2. Safety Evaluation

cc w/encls: Distribution via ListServ



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

DETROIT EDISON COMPANY

DOCKET NO. 50-341

FERMI 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 184
License No. NPF-43

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by the Detroit Edison Company (the licensee) dated January 4, 2010, as supplemented by letter dated October 22, 2010, 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. 184 and the Environmental Protection Plan contained in Appendix B, are hereby incorporated into this license. DECo shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance and shall be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert J. Pascarelli, Chief
Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: January 24, 2011

ATTACHMENT TO LICENSE AMENDMENT NO. 184

FACILITY OPERATING LICENSE NO. NPF-43

DOCKET NO. 50-341

Replace the following pages of the Facility Operating License with the attached revised pages. The revised page is identified by amendment number and contains a marginal line indicating the areas of change.

REMOVE

Page 3

INSERT

Page 3

Replace the following pages of Appendix A, Technical Specifications, with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

REMOVE

3.5-6

3.5-11

INSERT

3.5-6

3.5-11

- (4) 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;
- (5) 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 or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (6) 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

DECo is authorized to operate the facility at reactor core power levels not in excess of 3430 megawatts thermal (100% power) in accordance with conditions specified herein and in Attachment 1 to this license. The items identified in Attachment 1 to this license shall be completed as specified. Attachment 1 is hereby incorporated into this license.

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A as revised through Amendment No. 184 and the Environmental Protection Plan contained in Appendix B, are hereby incorporated into this license. DECo shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

(3) Antitrust Conditions

DECo shall abide by the agreements and interpretations between it and the Department of Justice relating to Article I, Paragraph 3 of the Electric Power Pool Agreement between Detroit Edison Company and

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY												
SR 3.5.1.8	<p>Verify the following ECCS pumps develop the specified flow rate against a system head corresponding to the specified reactor pressure.</p> <table border="1"> <thead> <tr> <th>SYSTEM FLOW RATE</th> <th>NO. OF PUMPS</th> <th>SYSTEM HEAD CORRESPONDING TO A REACTOR PRESSURE OF</th> </tr> </thead> <tbody> <tr> <td>Core</td> <td></td> <td></td> </tr> <tr> <td>Spray ≥ 5725 gpm</td> <td>2</td> <td>≥ 100 psig</td> </tr> <tr> <td>LPCI $\geq 10,000$ gpm</td> <td>1</td> <td>≥ 20 psig</td> </tr> </tbody> </table>	SYSTEM FLOW RATE	NO. OF PUMPS	SYSTEM HEAD CORRESPONDING TO A REACTOR PRESSURE OF	Core			Spray ≥ 5725 gpm	2	≥ 100 psig	LPCI $\geq 10,000$ gpm	1	≥ 20 psig	In accordance with the Inservice Testing Program
SYSTEM FLOW RATE	NO. OF PUMPS	SYSTEM HEAD CORRESPONDING TO A REACTOR PRESSURE OF												
Core														
Spray ≥ 5725 gpm	2	≥ 100 psig												
LPCI $\geq 10,000$ gpm	1	≥ 20 psig												
SR 3.5.1.9	<p>-----NOTE----- Not required to be performed until 12 hours after reactor steam pressure and flow are adequate to perform the test. -----</p> <p>Verify, with reactor pressure ≤ 1045 and ≥ 945 psig, the HPCI pump can develop a flow rate ≥ 5000 gpm against a system head corresponding to reactor pressure.</p>	In accordance with the Inservice Testing Program												
SR 3.5.1.10	<p>-----NOTE----- Not required to be performed until 12 hours after reactor steam pressure and flow are adequate to perform the test. -----</p> <p>Verify, with reactor pressure ≤ 215 psig, the HPCI pump can develop a flow rate ≥ 5000 gpm against a system head corresponding to reactor pressure.</p>	18 months												

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY												
SR 3.5.2.5	<p>.....NOTE..... LPCI subsystem(s) may be considered OPERABLE during alignment and operation for decay heat removal if capable of being manually realigned and not otherwise inoperable. </p> <p>Verify each required ECCS injection/spray subsystem manual, power operated, and automatic valve in the flow path, that is not locked, sealed, or otherwise secured in position, is in the correct position.</p>	31 days												
SR 3.5.2.6	<p>Verify each required ECCS pump develops the specified flow rate against a system head corresponding to the specified reactor pressure.</p> <table border="1"> <thead> <tr> <th>SYSTEM</th> <th>FLOW RATE</th> <th>NO. OF PUMPS</th> <th>SYSTEM HEAD CORRESPONDING TO A REACTOR PRESSURE OF</th> </tr> </thead> <tbody> <tr> <td>CS</td> <td>≥ 5725 gpm</td> <td>2</td> <td>≥ 100 psig</td> </tr> <tr> <td>LPCI</td> <td>≥ 10,000 gpm</td> <td>1</td> <td>≥ 20 psig</td> </tr> </tbody> </table>	SYSTEM	FLOW RATE	NO. OF PUMPS	SYSTEM HEAD CORRESPONDING TO A REACTOR PRESSURE OF	CS	≥ 5725 gpm	2	≥ 100 psig	LPCI	≥ 10,000 gpm	1	≥ 20 psig	In accordance with the Inservice Testing Program
SYSTEM	FLOW RATE	NO. OF PUMPS	SYSTEM HEAD CORRESPONDING TO A REACTOR PRESSURE OF											
CS	≥ 5725 gpm	2	≥ 100 psig											
LPCI	≥ 10,000 gpm	1	≥ 20 psig											
SR 3.5.2.7	<p>.....NOTE..... Vessel injection/spray may be excluded. </p> <p>Verify each required ECCS injection/spray subsystem actuates on an actual or simulated automatic initiation signal.</p>	18 months												



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 184 FACILITY OPERATING LICENSE NO. NPF-43

DETROIT EDISON COMPANY

FERMI 2

DOCKET NO. 50-341

1.0 INTRODUCTION

By application dated January 4, 2010 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML100050046), as supplemented by letter dated October 22, 2010 (ADAMS Accession No. ML102950489), Detroit Edison (the licensee), requested an amendment to Facility Operating License NPF-43 for Fermi 2. The proposed change would revise the core spray flow requirements in Technical Specification (TS) Surveillance Requirements (SRs) 3.5.1.8 and 3.5.2.6 from 6350 to 5725 gpm (at a discharge head corresponding to a reactor pressure of 100 psig). The revised core spray flow rate is consistent with the flow assumed in the Fermi 2 Emergency Core Cooling System safety analyses.

The lower Core Spray flow was assumed in the Fermi-2 design basis loss-of-coolant accident (LOCA) analyses performed at 4031 MWt (Appendix K) thermal at the peak linear heat generation rate of 14.40 x 1.02 kw/ft for the GE11 fuel (Reference (Ref.) 2) and 13.40x1.02 kw/ft for the GE14 fuel (Ref. 3). The Fermi 2 Appendix K compliant LOCA analyses were performed at this lower spray flow rate and previously reviewed and approved by the staff. The staff approved the LOCA analyses at these conditions which showed that the limiting break to be a small break with peak clad temperatures of 1830°F and 1990°F for the GE11 and GE14 fuels, respectively (Ref. 4).

On July 21, 2010, the Nuclear Regulatory Commission (NRC) staff sent a request for additional information (RAI) via an e-mail (ADAMS Accession No. ML102040293), which was discussed with the licensee in a teleconference held on August 18, 2010. As a result of the discussion during the teleconference, the subject RAI was revised and sent to the licensee on September 14, 2010 (ADAMS Accession No. ML102430171). In response to the revised RAI, the licensee provided supplemental information in a letter dated October 22, 2010.

The supplement to the application provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the NRC staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on April 20, 2010 (75 FR 20631).

2.0 REGULATORY EVALUATION

Section 50.46 of Title 10 of the *Code of Federal Regulations* (10 CFR), "Acceptance criteria for emergency core cooling systems for light-water nuclear power reactors," specifies requirements for the acceptability of the emergency core cooling system (ECCS). Paragraphs 50.46(a)(1)(i) and 50.46(a)(1)(ii) of 10 CFR specify alternative approaches to show compliance with the acceptance criteria of 10 CFR 50.46(b). Pursuant to 10 CFR 50.46(a)(1)(i), "ECCS cooling performance must be calculated in accordance with an acceptable evaluation model and must be calculated for a number of postulated loss-of-coolant accidents [LOCAs] of different sizes, locations, and other properties sufficient to provide assurance that the most severe postulated LOCAs are calculated." Further, except as provided in 10 CFR 50.46(a)(1)(ii), "the evaluation model must include sufficient supporting justification to show that the analytical technique realistically describes the behavior of the reactor system during a [LOCA]. The evaluation model must make comparisons to applicable experimental data and identify and assess uncertainties in the analysis method and inputs so that the uncertainty in the calculated results can be estimated. The evaluation model must account for this uncertainty so that, when the calculated ECCS cooling performance is compared to the criteria set forth in 10 CFR 50.46(b), there is a high level of probability that the criteria would not be exceeded.

Part 50 of 10 CFR, Appendix K, requires it to be assumed in the ECCS evaluation models that the reactor has been operating continuously at a power level at least 1.02 times the licensed power level (to allow for instrumentation error), with the maximum peaking factor allowed by the technical specifications. Appendix K permits a lower assumed power level (but not less than the licensed power level) to be used provided the proposed alternative value has been demonstrated to account for uncertainties due to power level instrumentation error.

General Design Criterion (GDC) 17, "Electric power systems," of Appendix A, "General Design Criteria for Nuclear Power Plants," to Title 10, Part 50, of the *Code of Federal Regulations* (CFR) requires, in part, that nuclear power plants have onsite and offsite electric power systems to permit the functioning of structures, systems, and components that are important safety.

The onsite system is required to have sufficient independence, redundancy, and testability to perform its safety function, assuming a single failure. The offsite power system is required to be supplied by two physically independent circuits that are designed and located so as to minimize, to the extent practical, the likelihood of their simultaneous failure under operating and postulated accident and environmental conditions. In addition, this criterion requires provisions to minimize the probability of losing electric power from the remaining electric power supplies as a result of loss of power from the unit, the offsite transmission network, or the onsite power supplies.

GDC-18, "Inspection and testing of electric power systems," requires that electric power systems that are important to safety must be designed to permit appropriate periodic inspection and testing.

The regulation at 10 CFR 50.36(c)(3), "Technical Specifications," requires that TSs include SRs, which are "requirements relating to test, calibration, or inspection to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions for operation will be met."

3.0 TECHNICAL EVALUATION

The current Fermi 2 TS SRs 3.5.1.8 and 3.5.2.6 require that the Core Spray (CS) pumps be tested to demonstrate that the flow capability of the pumps is 6350 gpm per division (i.e. for two pumps). The request by Detroit Edison is to reduce the SR to require CS pumps to provide a flow capability of 5725 gpm per division, consistent with 10 CFR 50.46 and 10 CFR Part 50 Appendix K analyses, and the Fermi 2 TS Bases and the standard TS Bases (NUREG 1433). This change provides consistency of the SR with the currently reviewed and approved Appendix K design basis, while also providing for a test margin between the TS SRs and measured pump performance. This modification will not affect the technical specification specified reactor pressure vessel pressure requirement, which remains unchanged. Since the proposed change in the TS requirement does not impact core spray system performance, as demonstrated in the currently reviewed and approved safety analyses, current compliance with 10 CFR 50.46 limits on post-LOCA fuel cladding performance and core cooling remains unaffected. To assure the acceptance criteria against the SR is maintained, Detroit Edison stated that it intends to continue Technical Specification Surveillance and Inservice testing of the pump as the current pump base line and establish compliance with the TS SR by comparing the measured performance against the design minimum pump curve employed in the design basis safety analyses.

To complete the review of the LOCA analyses, the staff issued RAI (Ref. 1) that is summarized below:

- 1.0 The staff requested that the surveillance requirement account for the maximum error on reactor coolant system pressure and flow. The licensee responded that the TS requirement includes allowance for a pressure error of 1.5 pounds per square inch (psig) (0.5 percent of reading) and a flow error of 150 gpm. The error adjusted curve then defines the minimum pump performance for testing and is referred to as the TS surveillance curve. The staff finds this response acceptable for supporting the minimum flow requirement for the surveillance tests.
- 2.0 The staff questioned why the smaller breaks in the spectrum in the range 0.1 to 0.05 ft² were not more limiting in nature due to the lower core spray flow. The licensee responded that breaks in this range were evaluated at the lower spray flow rates and found to be non-limiting due to the effectiveness of the high-pressure coolant injection to maintain these breaks at lower peak clad temperatures (Ref. 2 and 3).
- 3.0 The staff also questioned the need to evaluate the limiting axial power shape and requested the licensee confirm that the limiting top peaked power shape was used in the design basis, since earlier SAFER/GESTR analyses of late failed to incorporate the more limiting top peaked axial shapes in the design basis LOCA. The licensee confirmed that the limiting top peaked axial power shapes were employed in the design basis LOCA analyses.

3.1 Emergency Diesel Generator (EDG) Evaluation

The standby alternating current (AC) power system for Fermi 2 consists of four emergency diesel generator (EDG) units, each of which supplies a separate bus. These units are Colt

Industries, Fairbanks-Morse, 38TD8-1/8, 12-cylinder, opposed piston, 3967-horsepower, 900-revolutions per minute diesels, each driving a 4160 Volt AC, 3250 kilo-Watts (kW) salient pole generator, using a solid-state excitation system and fast-response electro hydraulic governors. The continuous rating of each EDG is 2850 kW.

Each EDG is started automatically on loss of voltage to its respective bus, on low reactor water level, or on high drywell pressure. The units are capable of being started or stopped (for non-emergency starts) manually from local control stations near the engines as well as from the main control room.

There are two independent and redundant divisions of engineered safety features, each of which can be powered by a division pair of the EDGs through their associated buses. The Fermi 2 EDGs are of sufficient capacity to provide minimum essential emergency loads, including a single failure, such as the loss of an EDG or essential bus. The EDGs are located in a Category I structure with fire-barrier separation between EDGs.

The EDGs at Fermi 2 have been designed to allow periodic testing and inspection without interruption of normal plant operation.

The existing Fermi 2 TSs require each divisional loop of core spray (2 pumps) to be capable of providing 6350 gpm with both pumps operating in parallel at a discharge pressure corresponding to a reactor pressure of 100 psig gauge. This flow rate is consistent with the original Appendix K accident analysis for Fermi 2. As a result of the licensee's accident analyses performed for the initial power uprate for Fermi 2 in June 1991, the ECCS Appendix K safety analyses were revised to assume a corresponding core spray flow of 5725 gpm. However, the licensee did not revise the Fermi 2 TS SRs to reflect the new safety analyses. The purpose of this license amendment request is to revise TS SRs 3.5.1.8 and 3.5.2.6 to reflect the existing safety analyses (i.e., 5725 gpm).

In Section 4 of the license amendment request, the licensee stated that the analysis to demonstrate the adequacy of 5725 gpm took into account instrument uncertainty and EDG under-frequency. The staff interpreted this statement to imply that the potential operation of the EDG at the lowest allowable frequency will result in adequate flow to satisfy Appendix K safety analyses. The licensee further contended that current EDG loading evaluation is bounding for the proposed change. The staff identified that the licensee did not discuss the loading impact on the EDG operating at a lower frequency in its license amendment request. Therefore, the staff requested the licensee to describe the consequences on EDG loading if the EDG operates at the extremes of the voltage and frequency range during emergency operation (i.e., the allowable voltage (greater than 3873 V and less than 4580 V) and frequency (+/- 2 percent of 60 Hertz) ranges prescribed by TS SR 3.8.1.2).

In its October 22, 2010, response to the staff's RAI, the licensee stated that the EDG load calculation maintained at Fermi 2 verifies that sufficient EDG capacity is available by accounting for all predicted loads on the EDGs for a loss of off-site power and LOCA. According to the licensee, the calculation also demonstrates that adequate voltage is available to the EDG loads when the EDG output voltage is at the TS minimum voltage for EDG operability.

Regarding EDG capacity, the licensee stated that the EDG load calculation demonstrates that the EDGs have sufficient capacity for the postulated loads during the Design-Basis Accident for EDG auto sequencing loads (0-10 minutes). The licensee also noted that the EDG loading calculation demonstrates that adequate voltage is available to the EDG loads when the EDG output voltage is at the TS minimum voltage for auto sequencing (0-10 minutes). The licensee included an additional load allowance in the EDG loading calculation to account for a possible 2 percent higher frequency variation. The licensee did not specifically consider lower frequency conditions since it would result in a reduction of EDG loading.

The licensee further noted that it recently has proposed revising the minimum EDG output voltage acceptance criterion in the Fermi 2 TS from 3873 V to 3950 V. This license amendment was approved by the staff in letter dated October 20, 2010 (ADAMS Accession No. ML102770382). According to the licensee, the EDG load calculation revision to reflect this change has been completed and supports the conclusions provided in this license amendment request.

While the staff did not review the licensee's EDG load calculation, the staff is satisfied that the licensee has considered the potential impact of the proposed change on EDG loading. Based on its review of the information provided by the licensee, the staff determined that the Fermi 2 EDGs will perform their intended design functions given the revised core spray flow rate. Based on this information, the staff finds the proposed change acceptable.

3.2 SUMMARY

Detroit Edison proposes to amend the Fermi-2 Plant Operating License amendment, Appendix A, TS to revise the core spray flow requirement in the TS SRs 3.5.1.8 and 3.5.2.6 from 6350 gpm to 5725 gpm consistent with the flow assumed in the ECCS safety analyses. This lower Core spray flow was assumed in the Fermi-2 power uprate design basis LOCA analyses performed at 3293 Mwt thermal. The Fermi 2 Appendix K compliant LOCA analyses were performed at this lower spray flow rate and previously reviewed and approved by the staff.

Given the assumptions in the design basis LOCA analyses, the purpose of the request by Detroit Edison is, therefore, to reduce the SR to require CS pumps to provide a flow capability of 5725 gpm per division, consistent with 10CFR 50.46 and 10 CFR Part 50 Appendix K analyses, and the Fermi-2 Technical Specification Bases and the Standard TS Bases (NUREG 1433). This change provides consistency of the SR with the currently reviewed and approved Appendix K design basis while also providing for a test margin between the TS SRs and measured pump performance. Since the proposed change in the TS requirement does not impact core spray system performance as demonstrated in the currently reviewed and approved safety analyses, current compliance with 10 CFR 50.46 limits on Post-LOCA fuel cladding performance remains unaffected.

Based on the review of the impact of the change on the design basis LOCA analyses, the staff, therefore, agrees with the proposed modification to reduce the core spray SR to 5725 gpm, corresponding to a reactor pressure of 100 psig, based on the design basis analysis at the Appendix K power level of 4031 MWt and an Appendix K peak linear heat generation rate of 14.40x1.02 for the GE 11 fuel and 13.40x1.02 kw/ft for the GE14 fuel. The results of the

previously approved LOCA analyses showed that the limiting break to be a small break with peak clad temperatures of 1830°F and 1990°F, for the GE11 and GE14 fuels, respectively.

The NRC staff finds the proposed changes provide assurance of the continued availability of the required power to shut down the reactor and to maintain the reactor in a safe condition after an anticipated operational occurrence or a postulated design-basis accident. The NRC staff also concludes that the proposed change does not impact the licensee's compliance with 10 CFR 50.36 and meets the intent of GDCs 17 and 18. Therefore, the NRC staff finds the proposed changes acceptable.

3.3 REFERENCES

1. NRC-10-0070, Response to RAIs for Licensee amendment Request to Revise the Core Spray Flow Requirement, Rodney Johnson to USNRC, dated October 22, 2010 (ADAMS Accession No. ML102950489).
2. GE-NE-0000-0047-1716-R1, "Fermi 2 SAFER/GESTR Loss-of-Coolant Accident Analysis For GE 11 Fuel," dated June 2008, submitted under Detroit Edison letter NRC-08-0046, "Submittal of Plant Specific Emergency Core Cooling System (ECCS) Evaluation Model Reanalysis," dated June 23, 2008 (ADAMS Accession No. ML081830409).
3. GE-NE-0000-0030-6565-R1, "Fermi 2 SAFER/GESTR- Loss-of-Coolant Accident Analysis for GE14 Fuel," dated June 2008, submitted under Detroit Edison letter NRC-08-0046, "Submittal of Plant Specific Emergency Core Cooling System (ECCS) Evaluation Model Reanalysis," dated June 23, 2008 (ADAMS Accession No. ML081830411).
4. Docket No. 50-341, M. Chawla (USNRC) to Davis, J. M. (Detroit Edison Co.) "Fermi-2 Approval of Plant Specific Emergency Core Cooling System (ECCS) Evaluation Model Reanalysis," June 30, 2009 (ADAMS Accession No. ML091740255).

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Michigan State official was notified of the proposed issuance of the amendment. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 or changes the surveillance requirements. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration and there has been no public

comment on such finding (75 FR 20631). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

6.0 CONCLUSION

The Commission has 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: Len Ward, NRR
Matt McConell, NRR

Date: January 24, 2011

January 24, 2011

Mr. Jack M. Davis
Senior Vice President and
Chief Nuclear Officer
Detroit Edison Company
Fermi 2 - 210 NOC
6400 North Dixie Highway
Newport, MI 48166

SUBJECT: FERMI 2 - ISSUANCE OF AMENDMENT RE: REVISE THE CORE SPRAY
FLOW REQUIREMENT OF TECHNICAL SPECIFICATION SURVEILLANCE
TESTS (TAC NO. ME3011)

Dear Mr. Davis:

The U.S. Nuclear Regulatory Commission has issued the enclosed Amendment No. 184 to Facility Operating License No. NPF-43 for the Fermi 2 facility. The amendment consists of changes to the Technical Specifications in response to your application dated January 4, 2010 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML100050046), supplemented by letter dated October 22, 2010 (ADAMS Accession No. ML102950489). The amendment revises the core spray flow requirement in the Technical Specifications Surveillance Requirements 3.5.1.8 and 3.5.2.6 from 6350 gallons per minute (gpm) to 5725 gpm (at a discharge head corresponding to a reactor pressure of 100 psig) consistent with the flow assumed in the Emergency Core Cooling System safety analysis evaluations.

A copy of our safety evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

/RA/

Mahesh L. Chawla, Project Manager
Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-341

Enclosures: 1. Amendment No. 184 to NPF-43 2. Safety Evaluation

cc w/encls: Distribution via ListServ

DISTRIBUTION:

PUBLIC	LPL3-1 R/F	RidsNrrDorIDpr Resource	RidsNrrLABTully Resource
RidsAcrcAcnw_MailCTR Resource		RidsNrrDorILp3-1 Resource	RidsOgcRp Resource
RidsNrrDirsltsb Resource		RidsNrrPMFermi2 Resource	RidsRgn3MailCenter Resource

Amendment Accession No.: ML103630435

OFFICE	NRR/LPL3-1/PM	NRR/LPL3-1/LA	SNPB/BC	SRXB/BC	EEEB/BC	SCVB/BC
NAME	MChawla	BTully /THarris for	AMendiola	AUises	RMathew(A)	RDennig
DATE	01/21/11	01/21/11	01/06/11	01/05/11	01/07/11	01/06/11
OFFICE	ITSB/BC	OGC – NLO w/comments	NRR/LPL3-1/BC			
NAME	RElliott	EMonteith	RPascarelli			
DATE	01/06/11	01/19/11	01/24/11			

OFFICIAL RECORD COPY