



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

INDIANA MICHIGAN POWER COMPANY

DOCKET NO. 50-315

DONALD C. COOK NUCLEAR PLANT, UNIT 1

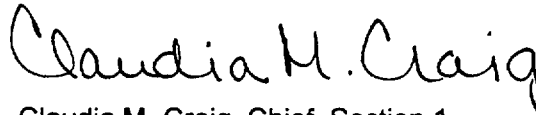
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 236
License No. DPR-58

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Indiana Michigan Power Company (the licensee) dated September 17, 1999, as supplemented November 10, 1999, and November 19, 1999, 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 to authorize revision of the Updated Final Safety Analysis (UFSAR) and Emergency Operating Procedures (EOPs) as set forth in the application for amendment by the licensee, dated September 17, 1999, and as supplemented November 10, 1999, and November 19, 1999, and as evaluated in the staff Safety Evaluation attached to this amendment. The licensee shall update the UFSAR and change the EOPs to allow credit for the negative reactivity provided by the insertion of the rod cluster control assemblies into the reactor core following a design basis loss-of-coolant accident as authorized by this license amendment and in accordance with 10 CFR 50.71(e).
3. This license amendment is effective as of its date of issuance and shall be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Claudia M. Craig, Chief, Section 1
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications Bases

Date of Issuance: December 28, 1999

ATTACHMENT TO LICENSE AMENDMENT NO. 236

TO FACILITY OPERATING LICENSE NO. DPR-58

DOCKET NO. 50-315

Replace the following page of the Appendix A Technical Specifications with the attached revised page. The revised page is identified by amendment number and contains marginal lines indicating the areas of change.

REMOVE

B 3/4 5-3

INSERT

B 3/4 5-3

3/4.5.5 REFUELING WATER STORAGE TANK

The OPERABILITY of the RWST as part of the ECCS ensure that sufficient negative reactivity is injected into the core to counteract any positive increase in reactivity caused by RCS system cooldown, and ensures that a sufficient supply of borated water is available for injection by the ECCS in the event of a LOCA. Reactor coolant system cooldown can be caused by inadvertent depressurization, a loss of coolant accident or a steam line rupture. Consistent with the applicable LOCA analyses, the limits on RWST minimum volume and boron concentration ensure that 1) when combined with water from melted ice, the RCS, and the accumulators, sufficient water is available within containment to permit recirculation cooling flow to the core, and 2) with the exception for the hot leg switchover subcriticality analysis following a cold leg break that incorporates control rod insertion, the reactor will remain subcritical in the cold condition following a LOCA assuming mixing of the RWST, RCS, ECCS water, and other sources of water that may eventually reside in the sump, with all control rods assumed to be out.

At the time hot leg switchover is performed, there is the potential following a cold leg LOCA that boron-diluted liquid from the containment sump will displace the boron-concentrated liquid in the core. To compensate for this momentary reduction of boron in the core, control rod insertion has been credited after a cold leg LOCA to provide negative reactivity necessary to assure core subcriticality.

The contained water volume limit includes an allowance for water not usable because of tank discharge line location or other physical characteristics.

The limits on contained water volume and boron concentration of the RWST also ensure a pH value of between 7.6 and 9.5 for the solution recirculated within containment after a LOCA. This pH band minimizes the evolution of iodine and minimizes the effect of chloride and caustic stress corrosion on mechanical systems and components.

The ECCS analyses to determine F_Q limits in Specifications 3.2.2 and 3.2.6 assumed a RWST water temperature of 70°F. This temperature value of the RWST water determines that of the spray water initially delivered to the containment following LOCA. It is one of the factors which determines the containment back-pressure in the ECCS analyses, performed in accordance with the provisions of 10 CFR 50.46 and Appendix K to 10 CFR 50.

The ECCS and containment integrity analyses assumed a maximum RWST water temperature above 100°F. Maintaining RWST water temperature at or below 100°F ensures the containment spray system will provide sufficient pressure suppression capability to limit the containment peak pressure transient to less than 12 psig, and that containment cooling will be maintained following a LOCA or steam line rupture inside containment.



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INDIANA MICHIGAN POWER COMPANY

DOCKET NO. 50-316

DONALD C. COOK NUCLEAR PLANT, UNIT 2

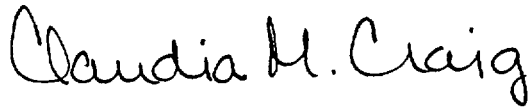
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 218
License No. DPR-74

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Indiana Michigan Power Company (the licensee) dated September 17, 1999, as supplemented November 10, 1999, and November 19, 1999, 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 to authorize revision of the Updated Final Safety Analysis (UFSAR) and Emergency Operating Procedures (EOPs) as set forth in the application for amendment by the licensee, dated September 17, 1999, and as supplemented November 10, 1999 and November 19, 1999, and as evaluated in the staff Safety Evaluation attached to this amendment. The licensee shall update the UFSAR and change the EOPs to allow credit for the negative reactivity provided by the insertion of the rod cluster control assemblies into the reactor core following a design basis loss-of-coolant accident as authorized by this license amendment and in accordance with 10 CFR 50.71(e).
3. This license amendment is effective as of its date of issuance and shall be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Claudia M. Craig, Chief, Section 1
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications Bases

Date of Issuance: December 28, 1999

ATTACHMENT TO LICENSE AMENDMENT NO. 218

FACILITY OPERATING LICENSE NO. DPR-74

DOCKET NO. 50-316

Replace the following page of the Appendix A Technical Specifications with the attached revised page. The revised page is identified by amendment number and contains marginal lines indicating the areas of change.

REMOVE

B 3/4 5-3

INSERT

B 3/4 5-3

3/4 BASES

3/4.5 EMERGENCY CORE COOLING SYSTEMS

3/4.5.5 REFUELING WATER STORAGE TANK

The OPERABILITY of the RWST as part of the ECCS ensures that sufficient negative reactivity is injected into the core to counteract any positive increase in reactivity caused by RCS system cooldown, and ensures that a sufficient supply of borated water is available for injection by the ECCS in the event of a LOCA. Reactor coolant system cooldown can be caused by inadvertent depressurization, a LOCA or a steam line rupture. Consistent with the applicable LOCA analyses, the limits on RWST minimum volume and boron concentration ensure that 1) when combined with water from melted ice, the RCS, and the accumulators, sufficient water is available within containment to permit recirculation cooling flow to the core, and 2) with the exception for the hot leg switchover subcriticality analysis following a cold leg break that incorporates control rod insertion, the reactor will remain subcritical in the cold condition following a LOCA assuming mixing of the RWST, RCS, ECCS water, and other sources of water that may eventually reside in the sump, with all control rods assumed to be out.

At the time hot leg switchover is performed, there is the potential following a cold leg LOCA that boron-diluted liquid from the containment sump will displace the boron-concentrated liquid in the core. To compensate for this momentary reduction of boron in the core, control rod insertion has been credited after a cold leg LOCA to provide negative reactivity necessary to assure core subcriticality.

The contained water volume limit includes an allowance for water not usable because of tank discharge line location or other physical characteristics.

The limits on contained water volume and boron concentration of the RWST also ensure a pH value of between 7.6 and 9.5 for the solution recirculated within containment after a LOCA. This pH band minimizes the evolution of iodine and minimizes the effect of chloride and caustic stress corrosion on mechanical systems and components.

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The ECCS and containment integrity analyses assumed a maximum RWST water temperature above 100°F. Maintaining RWST water temperature at or below 100°F ensures the containment spray system will provide sufficient pressure suppression capability to limit the containment peak pressure transient to less than 12 psig, and that containment cooling will be maintained following a LOCA or steam line rupture inside containment.