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OCT 15 1982

Docket No. 50-315

Mr. John Dolan, Vice President
 Indiana and Michigan Electric Company
 Post Office Box 18
 Bowling Green Station
 New York, New York 10004

Dear Mr. Dolan:

The Commission has issued the enclosed Amendment No. 64 to Facility Operating License No. DPR-58 for the Donald C. Cook Nuclear Plant, Unit No. 1. This amendment consists of changes to the Technical Specifications in response to your application transmitted by letter dated October 14, 1982.

This amendment permits a one time extension of the current 72 hour out-of-service time for one Safety Injection Pump to 312 hours to allow several minor adjustments to be made to return the pump to peak performance.

Copies of the Safety Evaluation and the Notice of Issuance are also enclosed.

Sincerely,

Original signed by:

David Wigginton, Project Manager
 Operating Reactors Branch No. 1
 Division of Licensing

Enclosures:

1. Amendment No. 64 to DPR-58
2. Safety Evaluation
3. Notice of Issuance

cc w/enclosures:
 See next page

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DATE	10/15/82	10/15/82	10/15/82	10/15/82	10/15/82	10/15/82	10/15/82

Mr. John Dolan
Indiana and Michigan Electric Company

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Regional Administrator - Region III
U. S. Nuclear Regulatory Commission
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

INDIANA AND MICHIGAN ELECTRIC COMPANY

DOCKET NO. 50-315

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 64
License No. DPR-58

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Indiana and Michigan Electric Company (the licensee) dated October 14, 1982, 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.

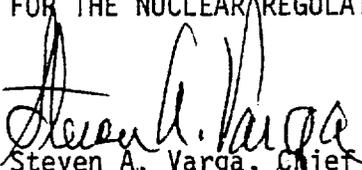
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-58 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 64, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

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

FOR THE NUCLEAR REGULATORY COMMISSION


Steven A. Varga, Chief
Operating Reactors Branch No. 1
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: October 15, 1982

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 64 TO FACILITY OPERATING LICENSE NO. DPR-58

DOCKET NO. 50-315

Revise Appendix A as follows:

Remove Page

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Insert Page

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EMERGENCY CORE COOLING SYSTEMS

ECCS SUBSYSTEMS - $T_{avg} \geq 350^{\circ}\text{F}$

LIMITING CONDITION FOR OPERATION

3.5.2 Two independent ECCS subsystems shall be OPERABLE with each subsystem comprised of:

- a. One OPERABLE centrifugal charging pump,
- b. One OPERABLE safety injection pump*,
- c. One OPERABLE residual heat removal heat exchanger,
- d. One OPERABLE residual heat removal pump, and
- e. An OPERABLE flow path capable of taking suction from the refueling water storage tank on a safety injection signal and transferring suction to the containment sump during the recirculation phase of operation.

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

- a. With one ECCS subsystem inoperable, restore the inoperable subsystem to OPERABLE status within 72 hours or be in HOT SHUTDOWN within the next 12 hours.
- b. In the event the ECCS is actuated and injects water into the Reactor Coolant System, a Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 90 days describing the circumstances of the actuation and the total accumulated actuation cycles to date.

*Only one safety injection pump is required to be operable in Modes 1, 2 and 3 for a period of time not to exceed 312 hours after 5:00 p.m. on October 12, 1982 or until the inoperable pump is declared operable, whichever comes first. At that time, this exemption to the requirements of the Technical Specifications and this note no longer apply.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 64 TO FACILITY OPERATING LICENSE NO. DPR-58

INDIANA AND MICHIGAN ELECTRIC COMPANY
DONALD C. COOK NUCLEAR PLANT UNIT NO. 1

DOCKET NO. 50-315

Background

By letter dated October 14, 1982, the Indiana and Michigan Electric Company (the licensee) requested a one time extension of the current 72 hour out-of-service time for one Safety Injection Pump to 10 days. The Emergency Core Cooling System (ECCS) for the D. C. Cook Units include two centrifugal charging high head pumps, two Safety Injection Pumps, and two residual heat removal pumps. One of the Safety Injection Pumps was found to have excessive vibrations (but within specifications) and was removed from service for adjustments.

The licensee had completed the repairs within 72 hours limit required by the Technical Specifications; however, several additional minor adjustments were felt necessary to return the pump to peak performance. These adjustments will require additional time.

Discussion

The D. C. Cook Unit 1 ECCS includes low pressure pumps, Safety Injection (SI) pumps (~1500 psig shut off head) and high head pumps (centrifugal charging pumps). The plant's FSAR small break LOCA analysis included credit for both the SI pumps and the high head ECCS pumps. For very small breaks (pressure remaining above 1400 psig) the SI pumps are not called upon. For larger, small breaks (1200 to 600 psig) both the SI pumps and the high head pumps are used; with approximately 650 gpm from the SI pumps and 550 gpm from the high head pumps. For large breaks the low head pumps and the accumulators provide the required ECCS flow.

In the event of a small LOCA, resulting in a pressure between 1200 and 600 psig, and a single failure of the other train of ECCS, there would be only 550 gpm available rather than the 1200 gpm (i.e., 650 gpm + 550 gpm) assumed in the FSAR analysis.

Evaluation

The current operational Safety Injection Pump recently underwent extensive repairs by the licensee and the pump manufacturer. That pump had been damaged when the recirculation line became blocked and the pump overheated. The

licensee now has extensive experience in the pump maintenance and repair and it is believed that the additional repairs being undertaken by the licensee on the pump out of service will benefit that pump's performance. From a repair standpoint, we agree that the adjustments should be made. We also agree that the one operating Safety Injection Pump should be reliable based on the extensive repair experience possessed by the licensee. In discussions with the licensee, they have committed to providing the NRC with a lessons learned document on the repair of the pumps as soon as the document is available.

American Electric Power has provided information from Westinghouse sensitivity studies (performed with the Westinghouse ECCS Small Break, October 1975 Model) which indicate that reduction in ECCS flow would result in less than a 550°F increase in Peak Clad Temperature (PCT) assuming operation at full power. The FSAR small break LOCA analysis (performed with a previous ECCS small break model) indicates a PCT of 1493°F.

The American Electric Power request and discussions with Westinghouse indicate that the calculated peak cladding temperature using the most recently approved Westinghouse ECCS small break model (October 1975) for a 4-loop Westinghouse plant similar to Cook is about 1200°F. For the purposes of this evaluation and compatibility with the ECCS flow rate sensitivity studies mentioned above we find this reference acceptable. The resulting net peak cladding temperature (about 1750°F, accounting for the 550°F increase in PCT due to reduced ECCS flow) is below that of the design basis case and thus small breaks continue not to be limiting. Additionally the request is for operation without the SI pump for an extension of 10 days.

Summary

Based on the information provided by the licensee, we conclude that operation in the proposed manner would not result in exceeding the Commission's regulations (10 CFR 50.46) in the event of a LOCA with a single failure. We, therefore, find the proposed change acceptable and conclude that it would not result in an undue risk to the health and safety of the public.

Environmental Consideration

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated, does not create the possibility of an accident of a type different from any evaluated previously, and does not involve a significant reduction in a margin of safety, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) 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.

Date: October 15, 1982

Principal Contributors:

F. Orr
N. Laubin
K. Wichman
D. Wigginton

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NO. 50-315INDIANA AND MICHIGAN ELECTRIC COMPANYNOTICE OF ISSUANCE OF AMENDMENT TO FACILITY
OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 64 to Facility Operating License No. DPR-58, issued to Indiana and Michigan Electric Company (the licensee), which revised Technical Specifications for operation of Donald C. Cook Nuclear Plant, Unit No. 1 (the facility) located in Berrien County, Michigan. The amendment is effective as of the date of issuance.

This amendment permits a one time extension of the current 72 hour out-of-service time for one Safety Injection Pump to 312 hours to allow several minor adjustments to be made to return the pump to peak performance.

The application for the 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. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

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The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment.

For further details with respect to this action, see (1) the application for amendment dated October 14, 1982, (2) Amendment No. 64 to License No. DPR-58, 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. and at the Maude Reston Palenske Memorial Library, 500 Market Street, St. Joseph, Michigan 49085. 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 Licensing.

Dated at Bethesda, Maryland, this 15th day of October 1982.

FOR THE NUCLEAR REGULATORY COMMISSION


Steven A. Varga, Chief
Operating Reactors Branch No. 1
Division of Licensing