



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. 105  
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 December 5, 1986, 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:

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PDR ADOCK 05000315  
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(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No.105, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

- 3. The Technical Specification change is to become effective within 45 days of receipt of this amendment.
- 4. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

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Dave L. Wigginton, Project Manager  
PWR Project Directorate #4  
Division of PWR Licensing-A

Attachment:  
Changes to the Technical  
Specifications

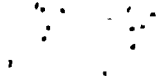
Date of Issuance: April 7, 1987

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PWR#4/DPWR-A  
DWigginton/mac  
04/1/87

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PWR#4/DPWR-A  
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OGC-Bethesda  
M.K. L. HAN  
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PWR#4/DPWR-A  
BJYoungblood  
04/6/87



The following information was obtained from the records of the  
 Department of the Interior, Bureau of Land Management, on  
 the subject of the above-captioned tract of land.  
 The tract of land described in the above-captioned  
 instrument is situated in the County of [County Name],  
 State of [State Name], and is more particularly  
 described in the instrument referred to above.  
 The tract of land described in the above-captioned  
 instrument is situated in the County of [County Name],  
 State of [State Name], and is more particularly  
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 State of [State Name], and is more particularly  
 described in the instrument referred to above.  
 The tract of land described in the above-captioned  
 instrument is situated in the County of [County Name],  
 State of [State Name], and is more particularly  
 described in the instrument referred to above.

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO.105 FACILITY OPERATING LICENSE NO. DPR-58

DOCKET NO. 50-315

Revise Appendix A as follows:

Remove Pages

3/4 2-14  
3/4 2-15

Insert Pages

3/4 2-14  
3/4 2-15



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POWER DISTRIBUTION LIMITS

QUADRANT POWER TILT RATIO

LIMITING CONDITION FOR OPERATION

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3.2.4 THE QUADRANT POWER TILT RATIO shall not exceed 1.02.

APPLICABILITY: MODE 1 ABOVE 50% OF RATED THERMAL POWER\*

ACTION:

- a. With the QUADRANT POWER TILT RATIO determined to exceed 1.02 but  $\leq 1.09$ :
  1. Within 2 hours:
    - a) Either reduce the QUADRANT POWER TILT RATIO to within its limit, or
    - b) Reduce THERMAL POWER at least 3% from RATED THERMAL POWER for each 1% of indicated QUADRANT POWER TILT RATIO in excess of 1.0 and similarly reduce the Power Range Neutron Flux-High Trip Setpoints within the next 4 hours.
  2. Verify that the QUADRANT POWER TILT RATIO is within its limit within 24 hours after exceeding the limit or reduce THERMAL POWER to less than 50% of RATED THERMAL POWER within the next 2 hours and reduce the Power Range Neutron Flux-High Trip setpoints to  $\leq 55\%$  of RATED THERMAL POWER within the next 4 hours.
  3. Identify and correct the cause of the out of limit condition prior to increasing THERMAL POWER; subsequent POWER OPERATION above 50% of RATED THERMAL POWER may proceed provided that the QUADRANT POWER TILT RATIO is verified within its limit at least once per hour for 12 hours or until verified acceptable at 95% or greater RATED THERMAL POWER.
- b. With the QUADRANT POWER TILT RATIO determined to exceed 1.09 due to misalignment of either a shutdown or control rod:
  1. Reduce THERMAL POWER at least 3% from RATED THERMAL POWER for each 1% of indicated QUADRANT POWER TILT RATIO in excess of 1.0, within 30 minutes.
  2. Verify that the QUADRANT POWER TILT RATIO is within its limit within 2 hours after exceeding the limit or

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\*See Special Test Exception 3.10.2

## POWER DISTRIBUTION

### LIMITING CONDITION FOR OPERATION (Continued)

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reduce THERMAL POWER to less than 50% of RATED THERMAL POWER within the next 2 hours and reduce the Power Range Neutron Flux-High Trip Setpoints to  $\leq 55\%$  of RATED THERMAL POWER within the next 4 hours.

3. Identify and correct the cause of the out of limit condition prior to increasing THERMAL POWER; subsequent POWER OPERATION above 50% of RATED THERMAL POWER may proceed providing that the QUADRANT POWER TILT RATIO is verified within its limit at least once per hour for 12 hours or until verified acceptable at 95% of greater RATED THERMAL POWER.
- c. With the QUADRANT POWER TILT RATIO determined to exceed 1.09 due to causes other than the misalignment of either a shutdown or control rod:
1. Reduce THERMAL POWER to less than 50% of RATED THERMAL POWER within 2 hours and reduce the Power Range Neutron Flux-High Trip Setpoints to  $\leq 55\%$  of RATED THERMAL POWER within the next 4 hours.
  2. Identify and correct the cause of the out of limit condition prior to increasing THERMAL POWER; subsequent POWER OPERATION above 50% of RATED THERMAL POWER may proceed provided that the QUADRANT POWER TILT RATIO is verified within its limit at least once per hour for 12 hours or until verified at 95% or greater RATED THERMAL POWER.

### SURVEILLANCE REQUIREMENTS

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4.2.4 The QUADRANT POWER TILT RATIO shall be determined to be within the limit above 50% of RATED THERMAL POWER by:

- a. Calculating the ratio at least once per 7 days when the alarm is OPERABLE.
- b. Calculating the ratio at least once per 12 hours during steady state operation when the alarm is inoperable.
- c. Using the movable incore detectors to determine the QUADRANT POWER TILT RATIO at least once per 12 hours when one Power Range Channel is inoperable and THERMAL POWER is  $> 75$  percent of RATED THERMAL POWER.



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