Docket Nos. 50-315
and 50-316

Mr. John Dolan, Vice President
Indiana and Michigan Electric Company
c/o American Electric Power Service Corporation
1 Riverside Plaza
Columbus, Ohio 43216

11 JUN 1986

Dear Mr. Dolan:

The Commission has issued the enclosed Amendment No. 96 to Facility Operating License No. DPR-58 and Amendment No. 83 to Facility Operating License No. DPR-74 for the Donald C. Cook Nuclear Plant, Unit Nos. 1 and 2. The amendments consist of changes to the Technical Specifications in response to your application transmitted by letter dated November 4, 1985.

These amendments revise the Technical Specification by adding provisions for the containment hydrogen monitor in response to NUREG-0737 Item II.F.1.6.

A copy of the related Safety Evaluation is enclosed. A Notice of Issuance will be included in the Commission's next bi-weekly Federal Register notice.

Sincerely,

151

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

Enclosures:
1. Amendment No. 96 to DPR-58
2. Amendment No. 83 to DPR-74
3. Safety Evaluation

cc: w/enclosures
See next page

PWR#4:DPWR-A	PWR#4:DPWR-A	OELD	PWR#4:DPWR-A
DWigginton:mac	MDuncan		for BJYoungblood
05/29/86	05/29/86	06/4/86	06/11/86

cc:
Mr. M. P. Alexich
Vice President
Nuclear Operations
American Electric Power Service
Corporation
1 Riverside Plaza
Columbus, Ohio 43215

Attorney General
Department of Attorney General
525 West Ottawa Street
Lansing, Michigan 48913

Township Supervisor
Lake Township Hall
Post Office Box 818
Bridgman, Michigan 49106

W. G. Smith, Jr., Plant Manager
Donald C. Cook Nuclear Plant
Post Office Box 458
Bridgman, Michigan 49106

U.S. Nuclear Regulatory Commission
Resident Inspectors Office
7700 Red Arrow Highway
Stevensville, Michigan 49127

Gerald Charnoff, Esquire
Shaw, Pittman, Potts and Trowbridge
1800 M Street, N.W.
Washington, DC 20036

Mayor, City of Bridgeman
Post Office Box 366
Bridgman, Michigan 49106

Special Assistant to the Governor
Room 1 - State Capitol
Lansing, Michigan 48909

Nuclear Facilities and Environmental
Monitoring Section Office
Division of Radiological Health
Department of Public Health
3500 N. Logan Street
Post Office Box 30035
Lansing, Michigan 48909

The Honorable John E. Grotberg
United States House of Representatives
Washington, DC 20515

Regional Administrator, Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

J. Feinstein
American Electric Power
Service Corporation
1 Riverside Plaza
Columbus, Ohio 43216

DISTRIBUTION:
Docket File
NRC PDR
L PDR
NSIC
PRC System
PWR#4 R/F
MDuncan
DWigginton
BJYoungblood R/F
EJordan
BGrimes
JPartlow
ACRS (10)
OELD
LHarmon
TBarnhart (8)
WJones
JMilhoan
OPA
LFMB
EButcher

AMENDMENT NO. 96 TO DC COOK UNITS 1 AND 2
83

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. 96
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 November 4, 1985, 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. 83 , are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. The Technical Specifications are to be effective within 60 days of issuance.

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

FOR THE NUCLEAR REGULATORY COMMISSION

151

B. J. Youngblood, Director
PWR Project Directorate #4
Division of PWR Licensing-A, NRR

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 11, 1986

PWR#4:DPWR-A	PWR#4:DPWR-A	OELD	PWR#4:DPWR-A
DWigginton:mac	MDuncan		for BJYoungblood
05/29/86	05/29/86	06/4/86	06/11/86

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

INDIANA AND MICHIGAN ELECTRIC COMPANY

DOCKET NO. 50-316

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 83
License No. DPR-74

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Indiana and Michigan Electric Company (the licensee) dated November 4, 1985, 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-74 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 96 , are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. The Technical Specifications are to be effective within 60 days of issuance.

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

FOR THE NUCLEAR REGULATORY COMMISSION

151

B. J. Youngblood, Director
PWR Project Directorate #4
Division of PWR Licensing-A, NRR

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 11, 1986

PWR#4:DPWR-A	PWR#4:DPWR-A	OELD	PWR#4:DPWR-A
DWigginton:mac	MDuncan		for BJYoungblood
05/29/86	05/29/86	06/4/86	06/11/86

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 96 FACILITY OPERATING LICENSE NO. DPR-58

AMENDMENT NO. 83 FACILITY OPERATING LICENSE NO. DPR-74

DOCKET NOS. 50-315 AND 50-316

Revise Appendix A as follows:

Remove Pages	Insert Pages
Unit 1 3/4 6-23	Unit 1 3/4 6 23
Unit 2 3/4 6-33	Unit 2 3/4 6 33

3/4.6.4 COMBUSTIBLE GAS CONTROL

HYDROGEN ANALYZERS

LIMITING CONDITION FOR OPERATION

3.6.4.1 Two containment hydrogen analyzers shall be OPERABLE.

APPLICABILITY: MODES 1 and 2

ACTION:

a. With one hydrogen analysis device inoperable, restore the inoperable analysis device to OPERABLE status within 30 days or be in at least HOT STANDBY within the next 6 hours.

b. With both hydrogen analysis devices inoperable, restore at least one analysis device to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours.

SURVEILLANCE REQUIREMENTS

4.6.4.1 Each hydrogen analysis device shall be demonstrated OPERABLE at least once per 92 days on a STAGGERED TEST BASIS by performing a CHANNEL CALIBRATION using a four percent and fifteen percent nominal hydrogen gas, balance nitrogen.

3/4.6.4 COMBUSTIBLE GAS CONTROL

HYDROGEN ANALYZERS

LIMITING CONDITION FOR OPERATION

3.6.4.1 Two containment hydrogen analyzers shall be OPERABLE.

APPLICABILITY: Modes 1 and 2.

ACTION:

a. With one hydrogen analysis device inoperable, restore the inoperable analysis device to OPERABLE status within 30 days or be in at least HOT STANDBY within the next 6 hours.

b. With both hydrogen analysis devices inoperable, restore at least one analysis device to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours.

SURVEILLANCE REQUIREMENTS

4.6.4.1 Each hydrogen analysis device shall be demonstrated OPERABLE at least once per 92 days on a STAGGERED TEST BASIS by performing a CHANNEL CALIBRATION using a four percent and fifteen percent nominal hydrogen gas, balance nitrogen.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 96 TO FACILITY OPERATING LICENSE NO. DPR-58

AND AMENDMENT NO. 83 TO FACILITY OPERATING LICENSE NO. DPR-74

INDIANA AND MICHIGAN ELECTRIC COMPANY

DONALD C. COOK NUCLEAR PLANT, UNIT NOS. 1 AND 2

DOCKET NOS. 50-315 AND 50-316

INTRODUCTION

By letter dated November 4, 1985, the licensee proposed certain changes to Technical Specification (TS) 3/4.6.4.1 concerning containment hydrogen monitors. This change request constitutes the licensee's response to NUREG-0737 Item II.F.1.6, Containment Hydrogen Monitors, and the guidance provided in Generic Letter (GL) 83-37 which recommended that licensees provide continuous indication of hydrogen concentration in the control room with a capability to measure hydrogen concentrations over a range of 0 to 10%. Generic Letter 83-37 provided guidance on technical specifications related to containment hydrogen monitors as noted below:

> "Two independent containment hydrogen monitors should be operable at all times when the reactor is operating in Power Operation or Startup modes. LCO for these monitors should include the requirement that with one hydrogen monitor inoperable, the monitor should be restored to operable status within 30 days or the plant should be brought to at least hot standby condition within the next 6 hours. If both monitors are inoperable, at least one monitor should be restored to operable status within 72 hours or the plant should be brought to at least hot standby condition within the next 6 hours."

Generic letter 83-37 also provides surveillance requirements for calibration testing of hydrogen monitors at 92 day intervals with two sample gas mixtures, one containing one volume percent hydrogen (balance nitrogen) and the other containing four volume percent hydrogen (balance nitrogen).

Additional guidance on the matter of containment hydrogen monitoring is provided in Regulatory Guide 1.97 which recommends a measurement capability over a range of 0-30% hydrogen for ice condenser containments.

EVALUATION & CONCLUSIONS

In accordance with the recommendations of Item II.F.1.6 and Regulatory Guide 1.97 the licensee has installed hydrogen monitors to provide continuous indication of hydrogen concentrations inside containment following an

accident. The hydrogen monitors have a range of 0 to 30 volume percent hydrogen. The licensee has also proposed technical specifications which fully comply with the guidance of Generic Letter 83-37 insofar as the limiting conditions for operation and action items are concerned.

However, with regard to the surveillance requirements for the hydrogen monitors, the licensee has proposed to calibrate the monitors using sample gas mixtures containing four and fifteen volume percent hydrogen (balance nitrogen) rather than the recommended compositions of one and four volume percent hydrogen. The licensee's rationale for choosing alternative sample gas mixtures is that the new hydrogen monitors have a wider operating range and would be better calibrated using mixtures spanning a wider range of hydrogen concentrations than by the samples recommended in GL 83-37 and the Westinghouse Standard Technical Specifications. The staff has considered the licensee's proposal and has discussed this matter with the vendor for the hydrogen monitors, Comsip Inc., and concludes that the calibration approach suggested by the licensee is acceptable. Therefore, the staff finds the proposed revisions to TS 3/4.6.4.1 to be acceptable.

ENVIRONMENTAL CONSIDERATION

These amendments involve a change in the installation or use of the facilities' components located within the restricted areas as defined in 10 CFR 20. The staff has determined that these amendments involve 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 these amendments involve no significant hazards consideration, and there has been no public comment on such finding. Accordingly, these amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR Sec 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 these amendments.

CONCLUSION

The Commission made a proposed determination that the amendments involve no significant hazards consideration which was published in the Federal Register (50 FR 51625) on December 18, 1985, and consulted with the state of Michigan. No public comments were received, and the state of Michigan did not have any comments.

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 these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: C. Tinkler

Dated: June 11, 1986