November 21, 1989

Docket Nos. 50-315 and 50-316

> Mr. Milton P. Alexich, Vice President Indiana Michigan Power Company c/o American Electric Power Service Corporation 1 Riverside Plaza Columbus, Ohio 43216

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Dear Mr. Alexich:

SUBJECT: AMENDMENTS NOS.129 AND 114TO FACILITY OPERATING LICENSES NOS. DPR-58 AND DPR-74: (TACS NOS. 73280 AND 73281)

The Commission has issued the enclosed Amendment No.129 to Facility Operating License No. DPR-58 and Amendment No.114 to Facility Operating License No. DPR-74 for the Donald C. Cook Nuclear Plant, Units Nos. 1 and 2. The amendments consist of changes to the Technical Specifications in response to your application dated January 27, 1989.

These amendments allow a portion of the Waste Gas Holdup System Explosive Monitoring System to be inoperable for 160 days on a one-time basis so that it may be replaced. These amendments also make some editorial changes.

A copy of our related Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly <u>Federal Register</u> notice.

Sincerely,

/s/ Joseph Giitter, Project Manager Project Directorate III-1 Division of Reactor Projects - III, IV, V & Special Projects Office of Nuclear Reactor Regulation

Enclosures: 1. Amendment No.129 to DPR-58

2. Amendment No.114 to DPR-74

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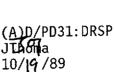
3. Safety Evaluation

cc w/enclosures: See next page

LA/PD31:DRSP

PShuttleworth

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UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555 November 21, 1989

Dockets Nos. 50-315 and 50-316

> Mr. Milton P. Alexich, Vice President Indiana Michigan Power Company c/o American Electric Power Service Corporation 1 Riverside Plaza Columbus, Ohio 43216

Dear Mr. Alexich:

SUBJECT: AMENDMENTS NOS.129 AND114 TO FACILITY OPERATING LICENSES NOS. DPR-58 AND DPR-74: (TACS NOS. 73280 AND 73281)

The Commission has issued the enclosed Amendment No.129 to Facility Operating License No. DPR-58 and Amendment No.114 to Facility Operating License No. DPR-74 for the Donald C. Cook Nuclear Plant, Units Nos. 1 and 2. The amendments consist of changes to the Technical Specifications in response to your application dated January 27, 1989.

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Joseph Giitter, Project Manager Project Directorate III-1 Division of Reactor Projects - III, IV, V & Special Projects Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No.129 to DPR-58
- 2. Amendment No.114 to DPR-74

cc w/enclosures: See next page

Safety Evaluation

Mr. Milton Alexich Indiana Michigan Power Company

cc:

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

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

Al Blind, 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 2300 N Street, N.W. Washington, DC 20037

Mayor, City of Bridgman 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 Donald C. Cook Nuclear Plant

Mr. S. Brewer American Electric Power Service Corporation 1 Riverside Plaza Columbus, Ohio 43216



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

INDIANA MICHIGAN POWER COMPANY

DOCKET NO. 50-315

DONALD C. COOK NUCLEAR PLANT, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No.129 License No. DPR-58

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Indiana Michigan Power Company (the licensee) dated January 27, 1989, 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.

8912060162 891121 PDR ADOCK 05000315 PDC PDC 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:

Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 129 , 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

John O. Ihoma

John O. Thoma, Acting Director Project Directorate III-1 Division of Reactor Projects - III, IV, V & Special Projects Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: November 21, 1989

ATTACHMENT TO LICENSE AMENDMENT NO. 129

FACILITY OPERATING LICENSE NO. DPR-58

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DOCKET NO. 50-315

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the attached pages. The revised pages are identified by amendment number and contain marginal lines indicating the area of change.

REMOVE	INSERT
3/4 3-63	3/4 3-63
3/4 3-64	3/4 3-64
3/4 3-66	3/4 3-66
3/4 3-67	3/4 3-67

In	strument (Instrument =)	Minimum Channels <u>Operable</u>	Applicability	ACTION
1.	Waste Gas Holdup System Explosive Gas Monitoring System ³ a. Hydrogen Monitor (QC-31) b. Oxygen Monitor (QC-31, QC-370)	(1) (2)	** **	30 29
2.	Condenser Evacuation System			
	a. Noble Gas Activity	(1)	****	28
	Monitor (SRA-1905)	(1) (1)	****	28
	b. Flow Rate Monitor (SFR-401) (1-MR-054 and/or SRA-1910)	(1)	****	27
3.	Unit Vent, Auxiliary Building Ventilation System a. Noble Gas Activity	(1)	*	28
	Monitor (VRS-1505) b. Iodine Sampler	(1)	~	20
	Cartridge for VRS-1503 c. Particulate Sampler	(1)	*	32
	Filter for VRS-1501	(1)	*	32
	d. Effluent System Flow Rate Measuring Device (VFR-315)	(1)	*	27
	(1-MR-054 and/or VRS-1510)	(1)	*	27
	e. Sampler Flow Rate Measuring Device (VFS-1521)	(1)	*	27
4.	Containment Purge System a. Aux. Building Vent. System Noble Gas Activity		1	
	Monitor (VRS-1505)	(1)	**** ¹	31
	b. Aux. Building Vent. System Particulate Sampler for VRS-1501	(1)	****	32
5.	Waste Gas Holdup System a. Noble Gas Activity Monitor Providing Alarm and Termination of Gas Decay Tank Releases (VRS-1505)	(1)	**** ²	33
6.				
	a. Noble Gas Activity			00
	Monitor (SRA-1805)	(1)	****	28
	b. Flow Rate Monitor (SFR-201) (1-MR-054 and/or SRA 1810)	(1) (1)	**** ****	27 27
D.	C. COOK - UNIT 1	3/4 3-63	Amendment	No. 94, 129

TABLE 3.3-13Radioactive Gaseous Effluent Monitoring Instrumentation

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TABLE 3.3-13 (Cont.)

* At all times
** During waste gas holdup system operation (treatment for primary system gases)
****During releases via this pathway.

¹For purge purposes only, see Technical Specifications 3.3.3.10, Table 3.3-13 and Table 4.3-9 (Items 3.a, 5.a in both tables) for non-purging requirements associated with this instrument.

²For gas decay tank releases only, see Item 3 (Unit Vent, Auxiliary Building Ventilation System) for additional requirements.

³The waste gas holdup system explosive gas monitoring system may be inoperable for up to 160 days on a one-time basis for the purpose of replacing one hydrogen and one oxygen monitor. During this time grab samples for both hydrogen and oxygen are to be taken and analyzed every 12 hours.

COOK NUCLEAR PLANT - UNIT 1

3/4 3-64

TABLE 4.3-9Radioactive Gaseous Effluent Monitoring InstrumentationSurveillance Requirements

<u>Instrument (Instrument ≠)</u>	CHANNEL <u>CHECK</u>	SOURCE <u>CHECK</u>	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL <u>TEST</u>
1. Waste Gas Holdup				
System Explosive Gas Monitoring System				1
a. Hydrogen****	D***	NA	Q(3)	м
Monitor (QC-31) b. Oxygen****	D ** *	NA	Q(4)	м
Monitor (QC-31) c. Oxygen Monitor (Alt.,QC-370)	D***	NA	Q(4)	м
Monitor (Alt., QC-5707				
 Condenser Evacuation System 				0(1)
a. Noble Gas Activity	D**	М	R(2)	Q(1)
Monitor (SRA-1905) b. System Effluent	D**	NA	R	Q
Flow Rate (SFR-401, 1-MR-054, SRA-1910)				
3. Auxiliary Building				
Ventilation System a. Noble Gas Activity	D*	M	R(2)	Q(1)
Monitor (VRS-1505) b. Iodine Sampler	W*	NA	NA	NA
(For VRS-1503)			NT 4	NT A
c. Particulate Sampler (For VRS-1501)	W*	NA	NA	NA
d. System Effluent Flow	D*	NA	R	Q
Rate Measurement Device (VFR-315, 1-MR-054, VRS-151	.0)			
e. Sampler Flow Rate	D*	NA	R	Q
Measurement Device (VFS-1521)				
4. Containment Purge System			- (-)	0(1)
a. Aux. Building Vent. System Noble Gas Activity Monitor (VRS-1505)	D**	P	R(2)	Q(1)
b. Aux. Building Vent. System Particulate Sampler (For VRS-1501)	W**	NA	NA	NA
5. Waste Gas Holdup System a. Noble Gas Activity Monitor Providing	P**	P	R(2)	Q(5)
Alarm & Termination of Gas Decay Tank				
Releases (VRS-1505)				

D. C. COOK - UNIT 1

· · ·

Amendment No. 94, 129

<u>Instrument (Instrument =)</u>	CHANNEL <u>CHECK</u>	SOURCE <u>CHECK</u>	CHANNEL <u>CALIBRATION</u>	CHANNEL FUNCTIONAL <u>TEST</u>	
6. Gland Seal Exhaust a. Noble Gas Activity (201) 1905	D**	м	R(2)	Q(1)	
(SRA-1805) b. System Effluent Flow Rate (SFR-201, 1-MR-054. SRA-1810)	D * *	NA	R	Q	

* At all times

** During release via this pathway

...

*** During waste gas holdup system operation (treatment for primary system offgases)

**** These surveillances are not required during the 160-day period in which this monitor is being replaced.



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

INDIANA MICHIGAN POWER COMPANY

DOCKET NO. 50-316

DONALD C. COOK NUCLEAR PLANT, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 114 License No. DPR-74

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Indiana Michigan Power Company (the licensee) dated January 27, 1989, 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.

 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:

Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 114 , 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

John O. Thema

John O. Thoma, Acting Director Project Directorate III-1 Division of Reactor Projects - III, IV, V & Special Projects Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: November 21, 1989

ATTACHMENT TO LICENSE AMENDMENT NO. 114

FACILITY OPERATING LICENSE NO. DPR-74

DOCKET NO. 50-316

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the attached pages. The revised pages are identified by amendment number and contain marginal lines indicating the area of change.

REMOVE

INSERT

3/4 3-59	3/4 3-59
3/4 3-60	3/4 3-60
3/4 3-62	3/4 3-62
3/4 3-63	3/4 3-63

TABLE 3.3-13

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Radioactive Gaseous Effluent Monitoring Instrumentation

	Minimum Channels		
<u>Instrument (Instrument #)</u>	<u>Operable</u>	Applicability	ACTION
 Waste Gas Holdup System Explosive Gas Monitoring System³ a. Hydrogen Monitor (QC-31) b. Oxygen Monitor (QC-31, QC-370) 	(1) (2)	** **	30 29
 Condenser Evacuation System Noble Gas Activity Monitor (SRA-2905) Flow Rate Monitor (SFR-401) (2-MR-054 and/or SRA-2910) 	(1) (1) (1)	**** **** ***	28 27 27
 Unit Vent, Auxiliary Building Ventilation System Noble Gas Activity Monitor (VRS-2505) Lading Sampler 	(1)	*	28
b. Iodine Sampler Cartridge for VRS-2503 c. Particulate Sampler	(1)	*	32
Filter for VRS-2501 d. Effluent System Flow Rate	(1)	*	32
Measuring Device (VFR-315) (2-MR-054 and/or VRS-2510) e. Sampler Flow Rate Measuring	(1) (1)	* *	27 27
Device (VFS-2521)	(1)	*	27
 Containment Purge System Aux. Building Vent. System Noble Gas Activity Monitor (VRS-2505) 	(1)	**** ¹	31
b. Aux. Building Vent. System Particulate Sampler for VRS-250)1 (1)	**** ¹	32
5. Waste Gas Holdup System a. Noble Gas Activity Monitor Providing Alarm and Termination of Gas Decay Tank Releases (VRS-2505)	(1)	**** ²	33
 6. Gland Seal Exhaust a. Noble Gas Activity Monitor (SRA-2805) b. Flow Rate Monitor (SFR-201) (2-MR-054 and/or SRA 2810) D. C. COOK - UNIT 2 	(1) (1) (1) 3/4 3-59	**** **** **** Amendment No.	28 27 27 &Ø,114

TABLE 3.3-13 (Cont.)

* At all times
** During waste gas holdup system operation (treatment for primary system gases)
****During releases via this pathway.

¹For purge purposes only, see Technical Specifications 3.3.3.10, Table 3.3-13 and Table 4.3-9 (Items 3.a, 5.a in both tables) for non-purging requirements associated with this instrument.

²For gas decay tank releases only, see Item 3 (Unit Vent, Auxiliary Building Ventilation System) for additional requirements.

³The waste gas holdup system explosive gas monitoring system may be inoperable for up to 160 days on a one-time basis for the purpose of replacing one hydrogen and one oxygen monitor. During this time grab samples for both hydrogen and oxygen are to be taken and analyzed every 12 hours.

COOK NUCLEAR PLANT - UNIT 2

3/4 3-60

<u>Instrument (Instrument =)</u>	CHANNEL <u>CHECK</u>	SOURCE <u>CHECK</u>	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL <u>TEST</u>
1. Waste Gas Holdup System Explosive				
Gas Monitoring System a. Hydrogen****)* * *	NA	Q(3)	M
Monitor (QC-31) b. Oxygen****	J***	NA	Q(4)	M ł
Monitor (QC-31) c. Oxygen Monitor (Alt., QC-370)	D***	NA	Q(4)	M
2. Condenser Evacuation System				
a. Noble Gas Activity Monitor (SRA-2905)	D**	Μ	R(2)	Q(1)
b. System Effluent Flow Rate (SFR-401. 2-MR-054, SRA-2910)	D**	NA	R	Q
 Auxiliary Building Ventilation System 				
a. Noble Gas Activity Monitor (VRS-2505)	D*	M	R(2)	Q(1)
b. Iodine Sampler (For VRS-2503)	W*	NA	NA	NA
c. Particulate Sampler (For VRS-2501)	W*	NA	NA	NA
d. System Effluent Flow Rate Measurement Device	D*	NA	R	Q
(VFR-315, 2-MR-054, VRS-2510 e. Sampler Flow Rate Measurement Device (VFS-2521))) D*	NA	R	Q
4. Containment Purge System a. Aux. Building Vent. System Noble Gas Activity Monitor (VRS-2505)	D**	P	R(2)	Q(1)
b. Aux. Building Vent. System Particulate Sampler (For VRS-2501)	W**	NA	NA	NA
5. Waste Gas Holdup System a. Noble Gas Activity Monitor Providing Alarm & Termination of Gas Decay Tank Releases (VRS-2505)	P**	P	R(2)	Q(5)

TABLE 4.3-9Radioactive Gaseous Effluent Monitoring InstrumentationSurveillance Requirements

Amendment No. 80, 114

TABLE 4.3-9 (Cont)

. . .

<u>Instrument (Instrument =)</u>	CHANNEL CHECK	SOURCE <u>CHECK</u>	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL <u>TEST</u>
6. Gland Seal Exhaust a. Noble Gas Activity (SRA-2805))**	м	R(2)	Q(1)
b. System Effluent Flow Rate (SFR-201, 2-MR-054. SRA-2810)	D * *	NA	R	Q

* At all times

** During release via this pathway

*** During waste gas holdup system operation (treatment for primary system offgases)

**** These surveillances are not required during the 160-day period in which this monitor is being replaced.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 129 TO FACILITY OPERATING LICENSE NO. DPR-58

AND AMENDMENT NO. 114 TO FACILITY OPERATING LICENSE NO. DPR-74

INDIANA MICHIGAN POWER COMPANY

DONALD C. COOK UNIT NOS. 1 AND 2

DOCKET NOS. 50-315 AND 50-316

1.0 INTRODUCTION

In a letter dated January 27, 1989, Indiana Michigan Power Company requested a change to the TS for the Donald C. Cook Nuclear Plant, Units 1 and 2 that would allow a portion of the Waste Gas Holdup Explosive Monitoring System to be inoperable (on a one time basis) for up to 160 days while the system is modified. The modification involves replacing the existing analysis system (QC-31) used to continuously monitor oxygen and hydrogen in the gas decay tanks with a more reliable oxygen and hydrogen analysis system. Another oxygen monitor (QC-370) would remain in service. QC-370 monitors the line from the operating waste gas compressor and automatically isolates the gas decay tank being filled (while placing the standby tank in service) if the oxygen content reaches three percent. To further augment hydrogen and oxygen detection capability, the licensee has proposed to collect and analyze grab samples every 12 hours while QC-31 is out of service.

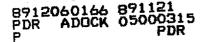
The proposed amendments would also make some minor editorial changes to increase clarity and consistency.

2.0 EVALUATION

Per 10 CFR 50.92, the licensee's submittal addressed why the proposed amendments would not involve a significant hazards consideration. The staff's evaluation of the licensee's no significant hazards assessment is discussed in this section.

Need for Hydrogen and Oxygen Waste Gas System Monitors

As discussed previously, the proposed amendment would allow the gas decay tank hydrogen and oxygen analysis system (QC-31) to be out of service for up to 160 days. The purpose of the hydrogen and oxygen analyzers is to alert operators to a potentially combustible mixture of hydrogen and oxygen in the waste gas system. During power operation, hydrogen gas is stripped from the reactor coolant and discharged to the CVCS holdup tanks during boron dilution. However, the highest volume of hydrogen gas is generated during the process of plant shutdown when the reactor coolant system is degassed.



Since combustible concentrations of hydrogen are possible during these evolutions, the waste gas system is designed to minimize oxygen concentrations. This is accomplished by (1) the use of a nitrogen cover gas, (2) restricting components that discharge to the waste gas vent header to those containing no air or no aerated fluids, and (3) maintaining the vent header at a positive pressure to prevent in-leakage. Despite the design considerations, oxygen ingress into the waste gas system is possible. This could occur, for example, following a seal failure on the suction side of the waste gas compressor. Thus, it is essential for operators to be promptly aware of oxygen concentrations that would support combustion of hydrogen.

Potential for Not Detecting Combustible Hydrogen/Oxygen Concentration

Figure 1 (attached) shows the minimum concentration of oxygen and hydrogen required for combustion in a nitrogen environment which is about 5% and 4%, respectively. (It is assumed that an ignition source will be available.) The licensee has stated that the hydrogen level will be assumed to be higher than the 4% minimum flammable concentration during the hydrogen monitor replacement. Thus, the lack of information provided by the hydrogen analyzer should not increase the probability of combustion during the replacement period. While the unavailability of the QC-31 oxygen monitor during the replacement period does eliminate the redundancy in the capability to continuously monitor oxygen concentration, the prompt automatic actions that may be required in response to oxygen in-leakage into the waste gas system would remain unchanged (i.e., QC-370 would initiate a switching of the waste gas holdup tanks to prevent the oxygen level from reaching the point where it could ignite with the hydrogen). In addition, oxygen concentrations based on grab sample analysis would be available every 12 hours.

The current D. C. Cook TS action statement for the oxygen monitors allows operation of the waste gas holdup system for 30 days with one oxygen monitor inoperable with no compensatory requirement for obtaining grab samples. Grab samples are only required if both oxygen monitors are inoperable. Thus, the licensee's proposal to take grab samples every 12 hours (even when QC-370 is in service) constitutes a level of compensatory action equivalent to the existing TS. If QC-370 were to become unavailable during the replacement period, the licensee would follow the existing TS requirement (i.e., operation of the waste gas system would be discontinued if QC-370 could not be repaired within 30 days).

In a teleconference between the Project Manager and licensee representatives on September 15, 1989, the licensee agreed to increase the sampling frequency to every eight hours during plant shutdown evolutions involving reactor coolant system degassing and during periods of QC-370 unavailability. The licensee also provided rationale for the duration of the requested 160 day replacement period. The licensee fully expects that the modifications will require the 0, and H₂ monitor system (QC-31) to be out of service for about 80 days. The 160 days was conservatively selected to ensure that unanticipated complications in the installation or testing of the explosive monitoring system would not necessitate an additional TS amendment request.

Consequences of Not Detecting Combustible Hydrogen/Oxygen Concentration

The worst case scenario involving the inoperability of oxygen and hydrogen monitors would be that a highly explosive mixture of hydrogen and oxygen ignites and causes the failure of a gas decay tank. Section 14.2.3 of D. C. Cook's Updated Safety Analysis Report (USAR) summarizes the analysis of a gas decay tank rupture. In the analysis, it was assumed that the entire equilibrium inventory of KR-85 and Xe-133 in the reactor coolant system and volume control tank space is contained in a single gas decay tank at the time of rupture. Assuming the incident occurred immediately after a refueling shutdown following operation with 1% fuel cladding defects, the maximum two-hour integrated whole body dose at the site boundary would be 1.26 rem. The consequences of this design basis event would not be changed by the proposed modification.

Based on the above, the staff has determined that the extended interval of time in which the oxygen and hydrogen monitor will be out of service for the replacement effort does not involve a significant increase in the probability or consequences of an accident previously evaluated. In addition, the extended interval of time in which the oxygen and hydrogen monitor will be out of service for the replacement effort will not create the possibility of a new or different kind of accident. As discussed previously, the worst case scenario is bounded by USAR accident analysis. Finally, in consideration of the automatic isolation function provided by QC-370, the requirement to sample for hydrogen and oxygen every 12 hours, and the increased sampling frequency during RCS degassing evolutions and during periods of QC-370 unavailability; the proposed change does not involve a significant reduction of a safety margin.

The proposed editorial changes are also acceptable to the staff

3.0 ENVIRONMENTAL CONSIDERATION

Pursuant to 10 CFR 51.21, 51.32 and 51.35, an environmental assessment and finding of no significant impact was published in the <u>Federal Register</u> on November 16, 1989 (54 FR 47742). Accordingly, based upon the environmental assessment, the Commission has determined that issuance of this amendment will not have a significant effect on the quality of the human environment.

4.0 CONCLUSION

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

Dated: September 18, 1989

Principal Contributor: J. G. Giitter

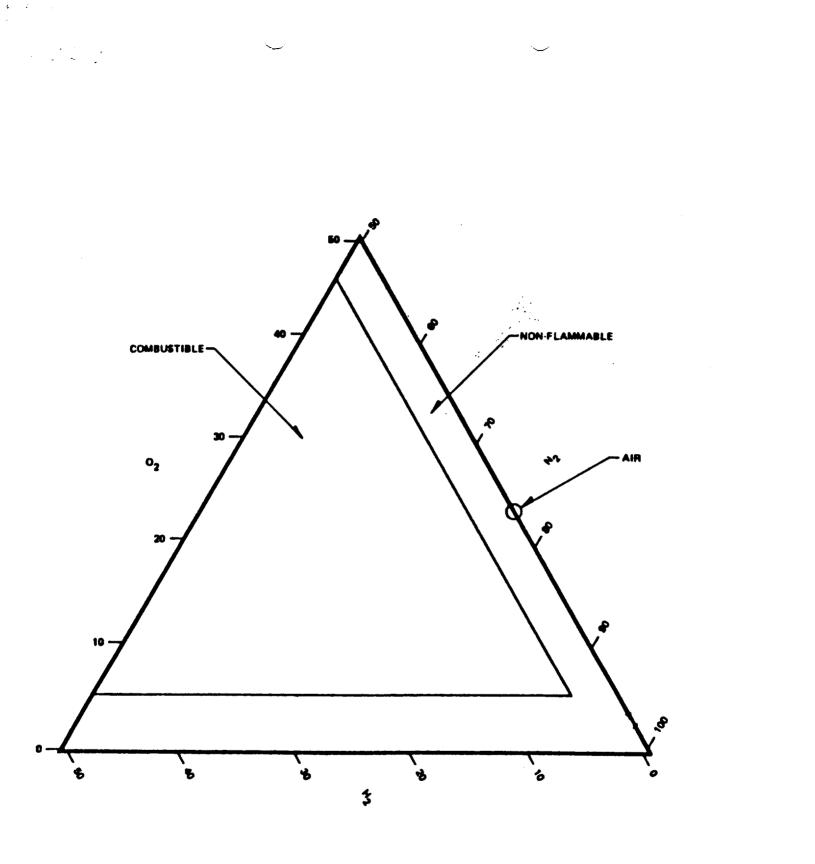


Figure 1. CONCENTRATION OF H₂ AND O₂ REQUIRED FOR COMBUSTION IN A NITROGEN ENVIRONMENT

7590-01

UNITED STATES NUCLEAR REGULATORY COMMISSION INDIANA MICHIGAN POWER COMPANY DOCKET NOS. 50-315 AND 50-316 NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY OPERATING LICENSE

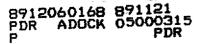
The U. S. Nuclear Regulatory Commission (Commission) has issued Amendment No. 129 to Operating License No. DPR-58 and Amendment No.114 to Operating License DPR-74 issued to Indiana Michigan Power Company, which revised the Technical Specifications for operation of the Donald C. Cook Nuclear Plant located in Berrien County, Michigan.

The amendment is effective as of the date of issuance.

The amendment revised the Technical Specification Sections to allow a portion of the Waste Gas System Explosive Monitoring System to be inoperable for up to 160 days to allow for its replacement.

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 for in the license amendment.

Notice of Consideration of Issuance of Amendment and Opportunity for Hearing in connection with this action was published in the FEDERAL REGISTER on August 18, 1989 (54 FR 34267). No request for a hearing or petition for leave to intervene was filed following this notice.



The Commission has prepared an Environmental Assessment related to the action and has determined not to prepare an environmental impact statement (54 FR 47742) dated November 16, 1989. Based upon the environmental assessment, the Commission has concluded that the issuance of this amendment will not have a significant effect on the quality of the human environment.

For further details with respect to the action see (1) the application for amendment dated January 21, 1989, (2) Amendment Nos.129 and 114 License Nos. DPR-58 and DPR-74 and (3) the Commission's related Safety Evaluation and Environmental Assessment. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, NW, and at the Maude Preston Polenske 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 Reactor Projects - III, IV, V and Special Projects.

Dated at Rockville, Maryland this 21st day of November 1989.

FOR THE NUCLEAR REGULATORY COMMISSION

Josph X. Mittin Joseph G. Giitter, Project Manager Project Directorate III-1 Division of Reactor Projects - III, IV, V & Special Projects Office of Nuclear Reactor Regulation

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