

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. 39 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 February 22 and May 28, 1980, 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.

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- 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. 39, 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

Vžrga, Chlief Α.

Operating Reactors Branch #1 Division of Licensing

Attachment: Changes to the Technical Specifications

Date of Issuance: July 25, 1980

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ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 39 TO FACILITY OPERATING LICENSE NO. DPR-58

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Revise Appendix A as follows:

Remove Pages	Insert Pages
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TABLE 3.3-3 (Continued)

- ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

FUNC	TIONAL	. UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
6.	мотор	R DRIVEN AUXILIARY FEEDW	ATER PUMPS				
	a.	Steam Generator Water Level Low-Low	3/Stm. Gen.	2/Stm. Gen. any Stm. Gen.	2/Stm. Gen.	1, 2, 3	14*
	b.	4 kv Bus Loss of Voltage	2/Bus	2/Bus	2/Bus	1, 2, 3	14*
7.	TURB	INE DRIVEN AUXILIARY FEE	DWATER PUMPS 🦮	د ۲	•	· · · · ·	
	a	Steam Generator Water Level Low-Low	3/Stm. Gen.	2/Stm. Gen. any 2 Stm. Gen	2/Stm. Gen. 1:	1, 2, 3	14*
8.	LOSS	OF POWER .		s: 	• •		
	a.	4 kv Bus Loss of Voltage	3/Bus	2/Bus	"2/Bus	1, 2, 3, 4	14*
	b.	4 kv Bus Degraded	· 3/Bus	2/Bus	2/Bus	1, 2, 3, 4	14*

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D.

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TABLE 3,3-4 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION TRIP SETPOINTS

FUNC	CTIONA	LUNIT	TRIP_SETPOINT .	ALLOWABL'E VALUES
6.	мото	R DRIVEN AUXILIARY FEEDWATER PUMPS	••• 4 •	· · ·
	a.	Steam Generator Water Level Low-Low	> 10% of narrow range instrument span each steam generator	> 9% of narrow range instrument span each steam generator
	b.	4 kv Bus Loss of Voltage	3196 volts with a '' 2-second delay	3196+18 volts with a 3+.2 second delay
7.	TURB	INE DRIVEN AUXILIARY FEEDWATER PUMPS	•	
	a.	Steam Generator Water Level Low-Low	> 10% of narrow range Instrument span each steam generator'	>.9% of narrow range instrument span each steam generator
8.	LOȘS	OF POWER	• . ,	·/ ·.
	a.	4 kv Bus Loss of Voltage	3196 volts with a 2-second delay	3196+18 volts with a . 2+.2 second delay
	b.	4 kv Bus Degraded Voltage	3196 volts with a 2.0 min. time delay	3196 <u>+</u> 18 volts,with a 2.0 minute <u>+</u> 6 second time delay
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TABLE 3.3-5 (Continued)

ENGINEERED SAFETY FEATURES RESPONSE TIMES

INITIATING SIGNAL AND FUNCTION RESPONSE TIME IN SECONDS Steam Flow in Two Steam Lines-High 6. Coincident with Steam Line Pressure-Low Safety Injection (ECCS) < 13.0#/23.0## a. Reactor Trip (from SI) b. < 3.0 <u><</u> 8.0 Feedwater Isolation c. Containment Isolation-Phase "A" d. $\leq 18.0 \# / 28.0 \# \#$ Containment Purge and Exhaust Isolation e. Not Applicable f. Auxiliary Feedwater Pumps Not Applicable Essential Service Water System < 14.0#/48.0## g. h. Steam Line Isolation < 8.0 7. Containment Pressure--High-High Containment Spray < 45.0 a. Containment Isolation-Phase "B" Ь. Not Applicable Steam Line Isolation c. < 7.0 Containment Air Recirculation Fan < 660.0 d. 8. Steam Generator Water Level--High-High < 2.5 Turbine Trip-Reactor Trip a. Ь. Feedwater Isolation < 11.0 9. Steam Generator Water Level--Low-Low a. Motor Driven Auxiliary Feedwater Pumps < 60.0 Turbine Driven Auxiliary Feedwater Pumps b. < 60.0 10. 4160 volt Emergency Bus Loss of Voltage Motor Driven Auxiliary Feedwater Pumps a. < 60.0

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TABLE 3.3-5 (Continued)

TABLE NOTATION

- Diesel generator starting and sequence loading delays included. Response time limit includes opening of valves to establish SI path and attainment of discharge pressure for centrifugal charging pumps, SI and RHR pumps.
- # Diesel generator starting and sequence loading delays <u>not</u> included. Offsite power available. Response time limit includes opening of valves to establish SI path and attainment of discharge pressure for centrifugal charging pumps.
- ## Diesel generator starting and sequence loading delays included. Response time limit includes opening of valves to establish SI path and attainment of discharge pressure for centrifugal charging pumps.

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUN	CTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL 	MODES IN WHICH SURVEILLANCE REQUIRED		
4.	STEAM LINE ISOLATION						
-	a. Manual	N.A.	N.A.	M(1)	1, 2, 3		
	b. Automatic Actuation Logic	N.A.	N.A.	M(2)	1, 2, 3		
	c. Containment Pressure High-High	S	R	M(3)	1, 2, 3		
	d. Steam Flow in Two Steam LinesHigh Coincident with T _{ayg} Low or Steam Line PressureLow	S	R	М	1, 2, 3		
5.	TURBINE TRIP AND FEEDWATER ISOLATION						
	a. Steam Generator Water LevelHigh-High	S	R	М	1, 2, 3		
6.	MOTOR DRIVEN AUXILIARY FEEDWATER	pumès					
	a. Steam Generator Water LevelLow-Low	S	R.	М	1, 2, 3		
đ	b. 4 kv Bus Loss of Voltage	S	R	М	1, 2, 3		

·· TABLE 4.3-2 (Cont'Inued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM 'INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNC		L UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES IN WHICH SURVEILLANCE REQUIRED
7.	TURB	INE DRIVEN AUXILIARY FEEDWATE	R PUMPS		1	
	a.	Steam Generator Water LevelLow-Low	S	R · · ·	M	1, 2, 3
8.	LOSS	OF POWER		;		· · · ·
	a.	4 kv Bus Loss of Voltage	S	R	M .	1, 2, 3, 4
	b.	4 kv Bus Degraded Voltage	S	R	с. СМ	1, 2, 3, 4

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TABLE 4.3-2 (Continued)

TABLE NOTATION

- Manual actuation switches shall be tested at least once per 18 months during shutdown. All other circuitry associated with manual safeguards actuation shall receive a CHANNEL FUNCTIONAL TEST at least once per 31 days.
- (2) Each train or logic channel shall be tested at least every other 31 days.
- (3) The CHANNEL FUNCTIONAL TEST shall include exercising the transmitter by applying either a vacuum or pressure to the appropriate side of the transmitter.

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SURVEILLANCE REQUIREMENTS (Continued)

- Verifying the fuel level in the fuel storage tank,
- 3. Verifying that a sample of diesel fuel from the fuel storage tank is within the acceptable limits specified in Table 1 of ASTM D975-68 when checked for viscosity, water and sediment,
- 4. Verifying the fuel transfer pump can be started from the control panel and transfers fuel from the storage system to the day tank,
- 5. Verifying the diesel starts from ambient condition,
- 6. Verifying the generator is synchronized, loaded to \geq 1750 kw, and operates for \geq 60 minutes, and
- 7. Verifying the diesel generator is aligned to provide standby power to the associated emergency busses.
- b. At least once per 18 months during shutdown by: .
 - Subjecting the diesel to an inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for this class of standby service,
 - 2. Verifying the generator capability to reject a load of \geq 500 kw without tripping,
 - 3. Simulating a loss of offsite power in conjunction with a safety injection signal, and:
 - a) Verifying de-energization of the emergency busses and load shedding from the emergency busses.
 - b) Verifying the diesel starts from ambient condition on the auto-start signal, energizes the emergency busses with permanently connected loads; energizes the auto-connected emergency loads through the load sequencer and operates for > 5 minutes while its generator is loaded with the emergency loads.
 - c) Verifying that on diesel generator trip, the loads are shed from the emergency buses and the diesel restarts on the auto-start signal following manual resetting of the diesel trip lockout relay, the emergency buses are energized with permanently connected loads, the auto-connected emergency loads are energized through the load secuencer and the diesel operates for ≥ 5 minutes while its generator is loaded with the emergency loads.

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SURVEILLANCE REQUIREMENTS (Continued)

- .4. Verifying the diesel generator operates for \geq 60 minutes while loaded to \geq 3500 kw.
- 5. Verifying that the auto-connected loads to each diesel generator do not exceed the 2000 hour rating of 3650 kw.
- 6. Verifying that the automatic sequence timing relays are OPERABLE with each load sequence time within \pm 5% of its required value and that each load is sequenced on within the design allowable time limit.