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Docket No. 50-315

DEC 12 1977

Indiana & Michigan Electric Company
Indiana & Michigan Power Company
ATTN: Mr. John Tillinghast
Vice President
P. O. Box 18
Bowling Green Station
New York, New York 10004

Gentlemen:

In response to your request dated July 20, 1977, the Commission has issued the enclosed Amendment No. 22 to Facility Operating License No. DPR-58 for the Donald C. Cook Nuclear Plant Unit No. 1.

The amendment incorporates fire protection Technical Specifications on the existing fire protection equipment and adds administrative controls related to fire protection at the facility. This action is being taken pending completion of our overall fire protection review of the facility. Some modifications to your proposal were necessary to meet our requirements. These modifications were discussed with and agreed to by your staff.

In order to provide a period of time to modify procedures to conform with the details of the enclosed interim Technical Specifications and to complete required personnel training where necessary, the amendment becomes effective 30 days after the date of issue.

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

Sincerely,

/s/

Don K. Davis, Acting Chief
Operating Reactors Branch #2
Division of Operating Reactors

Enclosures:
1. Amendment No. 22 to DPR-58
2. Safety Evaluation
3. Notice

Const. 1

cc w/enclosures:
See next page

** See other concurrence (attached)

OFFICE	DOAR: ORB-2	DOR:ORB-2	DOR: ORB-1	DOR:STSG**	OELD	DOR:ORB-2
SURNAME	MFletcher:ak	RDiggs	TVWambach	JMcGough		DKDavis
DATE	~~11/29/77~~ 12/7/77	11/29/77	11/29/77	11/ /77	12/5/77 11/ /77	12/7/77

Form AEC-318 (Rev. 9-53) AECM 0240

☆ U. S. GOVERNMENT PRINTING OFFICE: 1974-526-166

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

Docket No. 50-315

DEC 12 1977

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Indiana & Michigan Power Company
ATTN: Mr. John Tillinghast
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Copies of the related Safety Evaluation and the Notice of Issuance also are enclosed.

Sincerely,

Don K. Davis, Acting Chief
Operating Reactors Branch #2
Division of Operating Reactors

Enclosures:
1. Amendment No. 22 to License No. DPR-58
2. Safety Evaluation
3. Notice

cc w/enclosures:
See next page

OFFICE	DOR:ORB-2	DOR:ORB-1	DOR:TSG	OELD	DOR:ORB-2
SURNAME	MFletcher:esp RMDiggs rmd	TVWambach	JMcGough		DKDavis
DATE	11/23/77	11/ /77	11/28/77	11/ /77	11/ /77

Form AEC-318 (Rev. 9-53) AECM 0240 ☆ U. S. GOVERNMENT PRINTING OFFICE: 1974-526-166

cc w/enclosures:
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Vice President
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Gerald Charnoff, Esquire
Shaw, Pittman, Potts & Trowbridge
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Washington, D. C. 20036

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Plant Manager
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Bridgman, Michigan 49106

David Dinsmore Comey
Executive Director
Citizens for a Better Environment
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Chicago, Illinois 60605

Maude Reston Palenske Memorial Library
500 Market Street
St. Joseph, Michigan 49085

Mr. William R. Rustem (2)
Office of the Governor
Room 1 - Capitol Building
Lansing, Michigan 48913
(w/incoming from I&M dtd. 7/20/77)

Mr. Wade Schuler, Supervisor
Lake Township
Baroda, Michigan 49101

Honorable W. Mabry, Mayor
City of Bridgman, Michigan 49106

Chief, Energy Systems Analyses
Branch (AW-459)
Office of Radiation Programs
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Agency
Room 645, East Tower
401 M Street, S. W.
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U. S. Environmental Protection
Agency
Federal Activities Branch
Region V Office
ATTN: EIS COORDINATOR
230 Dearborn Street
Chicago, Illinois 60604

OFFICE ➤						
SURNAME ➤						
DATE ➤						

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

INDIANA & MICHIGAN ELECTRIC COMPANY

INDIANA & MICHIGAN POWER COMPANY

DOCKET NO. 50-315

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 22
License No. DPR-58

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

   A. The application for amendment by Indiana & Michigan Electric Company and Indiana & Michigan Power Company (the licensees) dated July 20, 1977, 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. 22, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective thirty days after its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Don K. Davis, Acting Chief
Operating Reactors Branch #2
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: December 12, 1977

ATTACHMENT TO LICENSE AMENDMENT NO. 22

FACILITY OPERATING LICENSE NO. DPR-58

DOCKET NO. 50-315

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change. The corresponding overleaf pages are also provided to maintain document completeness.

Pages

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XIV
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3/4 3-52 (added)
3/4 3-53 (added)
3/4 7-41 (added)
3/4 7-42 (added)
3/4 7-43 (added)
3/4 7-44 (added)
3/4 7-45 (added)
3/4 7-46 (added)
3/4 7-47 (added)
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3/4 7-49 (added)
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FIRE DETECTION INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.7 As a minimum, the fire detection instrumentation for each fire detection zone shown in Table 3.3-10 shall be OPERABLE.

APPLICABILITY: Whenever equipment in that fire detection zone is required to be OPERABLE.

ACTION:

With the number of OPERABLE fire detection instruments less than required by Table 3.3-10:

1. Within 1 hour, establish a fire watch patrol to inspect the zone(s) with the inoperable instrument(s) at least once per hour, and

2. Restore the inoperable instrument(s) to OPERABLE status within 14 days or, in lieu of any other report required by Specification 6.9.1, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 30 days outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the instrument(s) to OPERABLE status.

3. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.7.1 Each of the above fire detection instruments shall be demonstrated OPERABLE at least once per 6 months by performance of a CHANNEL FUNCTIONAL TEST.

4.3.3.7.2 The circuits between the above required detection instruments and the control room shall be demonstrated OPERABLE at least once per 31 days per approved procedures.

TABLE 3.3-10

FIRE DETECTION INSTRUMENTATION

INSTRUMENT LOCATION	MINIMUM INSTRUMENTS OPERABLE	
	SMOKE (IONIZATION)	HEAT (THERMISTOR)
1. Containment		
Zone 6, Quadrant 1 Cable Tunnel	3	
Zone 7, Quadrant 2 Cable Tunnel	5	
Zone 8, Quadrant 3N Cable Tunnel	3	
Zone 9, Quadrant 3M Cable Tunnel	3	
Zone 10, Quadrant 3S Cable Tunnel	2	
Zone 11, Quadrant 4 Cable Tunnel	5	
Quadrant 1		18
Quadrant 2		15
Quadrant 3		6
Quadrant 4		8
1-HV-CFT-1 Charcoal Filters		1
1-HV-CFT-2 Charcoal Filters		1
2. Control Room		
Zone 22, Control Room	8	
3. Cable Spreading Room		
Zone 15, Switchgear Cable Vault	10	
Zone 16, Auxiliary Cable Vault	5	
Zone 17, Control Room Cable Vault	24	
Zone 18, Control Room Cable Vault	25	
4. Diesel Generator		
Diesel Generator Room 1AB		1
Diesel Generator Room 1CD		1
5. Diesel Fuel Oil Room		1

TABLE 3.3-10 (Cont'd)

FIRE DETECTION INSTRUMENTATION

INSTRUMENT LOCATION	MINIMUM INSTRUMENTS OPERABLE	
	SMOKE (IONIZATION)	HEAT (THERMISTOR)
6. Auxiliary Building		
Zone 1, Elevation 573 ft.	5	
Zone 2, Elevation 587 ft.	20	
Zone 3, Elevation 609 ft.	20	
Zone 4, Elevation 633 ft.	20	
Zone 5, Elevation 650 ft.	26	
Zone 12, 4 Kv Switchgear	3	
Zone 13, Engineered Safety Switchgear	7	
Zone 14, CRD Switchgear	6	
1-HV-AES-1 Charcoal Filters		1
1-HV-AES-2 Charcoal Filters		1
12-HV-AFX Charcoal Filters		1
1-HV-CPR Charcoal Filters		1
1-HV-CIPX Charcoal Filters		1
1-HV-ACRF Charcoal Filters		1
7. Fuel Storage		
Zone 19, New Fuel Storage Room	3	

3/4.7.9 FIRE SUPPRESSION SYSTEMS

FIRE SUPPRESSION WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.9.1 The fire suppression water system shall be OPERABLE with:

a. Two high pressure pumps, one of which shall be a diesel driven pump with ≥ 160 gallons of fuel in its storage tank, with their discharge aligned to the fire suppression header.

b. An OPERABLE flow path capable of taking suction from Lake Michigan and transferring the water through distribution piping with OPERABLE sectionalizing control or isolation valves to the yard hydrant curb valves and the first valve ahead of the water flow alarm device on each sprinkler, hose standpipe or spray system riser required to OPERABLE per Specifications 3.7.9.2 and 3.7.9.5.

APPLICABILITY: At all times.

ACTION:

a. With one pump inoperable, restore the inoperable equipment to OPERABLE status within 7 days or, in lieu of any other report required by Specification 6.9.1, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 30 days outlining the plans and procedures to be used to provide for the loss of redundancy in this system. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

b. With the fire suppression water system otherwise inoperable:

1. Establish a backup fire suppression water system within 24 hours, and

2. Submit a Special Report in accordance with Specification 6.9.2;

a) By telephone within 24 hours,

b) Confirmed by telegraph, mailgram or facsimile transmission no later than the first working day following the event, and

ACTION: (Continued)

c) In writing within 14 days following the event, outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE STATUS.

SURVEILLANCE REQUIREMENTS

4.7.9.1.1 The fire suppression water system shall be demonstrated OPERABLE:

a. At least once per 31 days on a STAGGERED TEST BASIS by starting each pump and operating it for at least 15 minutes on recirculation flow.

b. At least once per 31 days by verifying that each valve (manual, power operated or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.

c. At least once per 6 months by performance of a system flush.

d. At least once per 12 months by cycling each testable valve in the flow path through at least one complete cycle of full travel.

e. At least once per 18 months by performing a system functional test which includes simulated automatic actuation of the system throughout its operating sequence, and:

1. Verifying that each automatic valve in the flow path actuates to its correct position,

2. Verifying that each pump develops a flow of at least 2000 gpm at a system head of 300 feet,

3. Cycling each valve in the flow path that is not testable during plant operation through at least one complete cycle of full travel, and

4. Verifying that each high pressure pump starts (sequentially) to maintain the fire suppression water system pressure $\geq$ 100 psig.

f. At least once per 3 years by performing a flow test of the system in accordance with Chapter 5, Section 11 of Fire Protection Handbook, 14th Edition published by National Fire Protection Association.

SURVEILLANCE REQUIREMENTS (Continued)

4.7.9.1.2 The fire pump diesel engine shall be demonstrated OPERABLE:

a. At least once per 31 days by:

1. Verifying the fuel level in its storage tank, and

2. Verifying the diesel starts from ambient conditions and operates for at least 20 minutes.

b. At least once per 92 days by verifying that a sample of diesel fuel from the fuel storage tank obtained in accordance with ASTM-D270-65 is within the acceptable limits specified in Table 1 of ASTM-D975-74 when checked for viscosity, water and sediment.

c. At least once per 18 months during shutdown by:

1. Subjecting the diesel to a inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for this class of standby service, and

2. Verifying the diesel starts from ambient conditions on the auto-start signal and operates for at least 20 minutes while loaded with the fire pump.

4.7.9.1.3 The fire pump diesel starting battery bank and charger shall be demonstrated OPERABLE:

a. At least once per 7 days by verifying that:

1. The electrolyte level of each battery is above the plates, and

2. The overall battery voltage is $\geq$ 24 volts.

b. At least once per 92 days by verifying that the specific gravity is appropriate for continued service of the battery.

c. At least once per 18 months by verifying that:

1. The batteries, cell plates and battery racks show no visual indication of physical damage or abnormal deterioration, and

2. The battery-to-battery and terminal connections are clean, tight, free of corrosion and coated with anti-corrosion material.

SPRAY AND/OR SPRINKLER SYSTEMS

LIMITING CONDITION FOR OPERATION

3.7.9.2 The spray and/or sprinkler systems located in the areas shown in Table 3.7-5 shall be OPERABLE:

APPLICABILITY: Whenever equipment in the spray/sprinkler protected areas is required to be OPERABLE.

ACTION:

a. With one or more of the above required spray and/or sprinkler systems inoperable, establish a continuous fire watch with backup fire suppression equipment for the unprotected area(s), within 1 hour. Restore the system to OPERABLE status within 14 days or, in lieu of any other report required by Specification 6.9.1, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 30 days outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.9.2 Each of the above required spray and/or sprinkler systems shall be demonstrated to be OPERABLE:

a. At least once per 12 months by cycling each testable valve in the flow path through at least one complete cycle of full travel.

b. At least once per 18 months:

1. By performing a system functional test which includes simulated automatic actuation of the system, and:

a) Verifying that the automatic valves in the flow path actuate to their correct positions on a test signal, and

b) Cycling each valve in the flow path that is not testable during plant operation through at least one complete cycle of full travel.

SURVEILLANCE REQUIREMENTS (Continued)

2. By inspection of deluge and preaction type system spray headers to verify their integrity.

3. By inspection of each open head deluge nozzle to verify no blockage.

c. At least once per 3 years by performing an air flow test through each open head deluge header and verifying each open head deluge nozzle is unobstructed.

TABLE 3.7-5

SRRAY AND/OR SPRINKLER SYSTEMS

A. OPEN HEAD DELUGE TYPE WATER SYSTEMS

LOCATION	ACTUATION
1-HV-AES-1 Charcoal Filters	Electric-heat
1-HV-AES-2 Charcoal Filters	Electric-heat
12-HV-AFX Charcoal Filters	Electric-heat
1-HV-CPR-1 Charcoal Filters	Electric-heat
1-HV-CIPX-1 Charcoal Filters	Electric-heat
1-HV-ACRF-1 Charcoal Filters	Electric-heat

B. CLOSED HEAD SPRINKLER TYPE WATER SYSTEMS

LOCATION	TYPE SYSTEM	ACTUATION
Auxiliary Bldg. Cask Handling Area*	Preaction Sprinkler	Dry Pilot
Auxiliary Bldg. Drumming Area*	Preaction Sprinkler	Dry Pilot

*Shared system with D. C. COOK - UNIT 2.

LOW PRESSURE CO_2 SYSTEMS

LIMITING CONDITION FOR OPERATION

3.7.9.3 The low pressure CO_2 systems located in the areas shown in Table 3.7-6 shall be OPERABLE with a minimum level of 50% and a minimum pressure of 285 psig in the associated storage tank.

APPLICABILITY: Whenever equipment in the low pressure CO_2 protected areas is required to be OPERABLE.

ACTION:

a. With one or more of the above required low pressure CO_2 systems inoperable, establish a continuous fire watch with backup fire suppression equipment for the unprotected area(s), within 1 hour. Restore the system to OPERABLE status within 14 days or, in lieu of any other report required by Specification 6.9.1, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 30 days outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.9.3 Each of the above required low pressure CO_2 systems shall be demonstrated OPERABLE:

a. At least once per 7 days by verifying the CO_2 storage tank level and pressure.

b. At least once per 18 months by verifying:

1. The system valves and associated ventilation dampers actuate manually and automatically, upon receipt of a simulated actuation signal, and

2. Flow from each nozzle during a "Puff Test."

TABLE 3.7-6

LOW PRESSURE CARBON DIOXIDE SYSTEMS

17 TON CAPACITY

LOCATION	ACTUATION METHOD
Diesel Generator 1AB Room	Heat - 2 circuits
Diesel Generator 1CD Room	Heat - 2 circuits
Diesel Generator Fuel Oil Pump Room	Heat
4 kv Switchgear Rooms	Ionization
Control Rod Drive, Transf. Switchgear Rooms	Ionization
Switchgear Room Cable Vault	Ionization
Auxiliary Cable Vault	Ionization
Control Room Cable Vault	Manual (backup)
Penetration Cable Tunnel Quadrant 1	Ionization
Penetration Cable Tunnel Quadrant 2	Ionization
Penetration Cable Tunnel Quadrant 3N	Ionization
Penetration Cable Tunnel Quadrant 3M	Ionization
Penetration Cable Tunnel Quadrant 3S	Ionization
Penetration Cable Tunnel Quandrant 4	Ionization
Emergency Safety Switchgear Room	Ionization

HALON SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.9.4 The Halon system located in the Unit 1 Control Room Cable Spreading Area shall be OPERABLE with the storage tanks having at least 95% of full charge weight and 90% of full charge pressure.

APPLICABILITY: Whenever equipment in the Halon protected areas is required to be OPERABLE.

ACTION:

a. With the above required Halon system inoperable, verify that the fire detection system and the backup CO_2 fire suppression system are OPERABLE; otherwise, establish a continuous fire watch with backup fire suppression equipment for the unprotected area, within 1 hour. Restore the system to OPERABLE status within 14 days or, in lieu of any other report required by Specification 6.9.1, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 30 days outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.9.4 The above required Halon system shall be demonstrated OPERABLE:

a. At least once per 6 months by verifying each Halon storage tank weight and pressure.

b. At least once per 18 months by:

1. Verifying the system, including associated ventilation dampers, actuates manually and automatically to a simulated test signal.

2. Performance of a flow test through headers and nozzles to assure no blockage.

FIRE HOSE STATIONS

LIMITING CONDITION FOR OPERATION

3.7.9.5 The fire hose standpipe connections in the following locations shall be OPERABLE:

1. Auxiliary Building (minimum 12).
2. Access to Diesel Generators (minimum 1).
3. Access to Switchgear Rooms (minimum 1).
4. Access to Control Room (minimum 1).

APPLICABILITY: Whenever equipment in the areas protected by the fire hose stations is required to be OPERABLE.

ACTION:

a. With one or more of the above required hose standpipe connections inoperable, route an additional hose to the unprotected area(s) from an OPERABLE hose standpipe connection within 1 hour.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.9.5 Each of the above required fire hose standpipe connections shall be demonstrated OPERABLE:

a. At least once per 31 days by a visual inspection of the fire hose standpipe connection to assure all required equipment is at the connection.

b. At least once per 18 months by:

   1. Removing the hose for inspection and re-racking, and
   2. Replacement of all degraded gaskets in couplings.

c. At least once per 3 years by:

   1. Partially opening each hose standpipe connection valve to verify valve OPERABILITY and no flow blockage.
   2. Conducting a hose hydrostatic test at a pressure at least 50 psig greater than the maximum pressure available at that hose standpipe connection.

3/4.7.10 PENETRATION FIRE BARRIERS

LIMITING CONDITION FOR OPERATION

3.7.10 All penetration fire barriers protecting safety related areas shall be functional.

APPLICABILITY: At all times.

ACTION:

a. With one or more of the above required penetration fire barriers non-functional, establish a continuous fire watch on at least one side of the affected penetration within 1 hour.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.10 Each of the above required penetration fire barriers shall be verified to be functional by a visual inspection:

a. At least once per 18 months, and

b. Prior to declaring a penetration fire barrier functional following repairs or maintenance.

3/4.3.3.6 AXIAL POWER DISTRIBUTION MONITORING SYSTEM (APDMS)

The OPERABILITY of the APDMS ensures that sufficient capability is available for the measurement of the neutron flux spatial distribution within the reactor core. This capability is required to 1) monitor the core flux patterns that are representative of the peak core power density and 2) limit the core average axial power profile such that the total power peaking factor F_Q is maintained within acceptable limits.

3/4.3.3.7 FIRE DETECTION INSTRUMENTATION

OPERABILITY of the fire detection instrumentation ensures that adequate warning capability is available for the prompt detection of fires. This capability is required in order to detect and locate fires in their early stages. Prompt detection of fires will reduce the potential for damage to safety related equipment and is an integral element in the overall facility fire protection program.

In the event that a portion of the fire detection instrumentation is inoperable, the establishment of frequent fire patrols in the affected areas is required to provide detection capability until the inoperable instrumentation is restored to OPERABILITY.

3/4.7.9 FIRE SUPPRESSION SYSTEMS

The OPERABILITY of the fire suppression systems ensures that adequate fire suppression capability is available to confine and extinguish fires occuring in any portion of the facility where safety related equipment is located. The fire suppression system consists of the water system, spray and/or sprinklers, CO_2, Halon and fire hose stations. The collective capability of the fire suppression systems is adequate to minimize potential damage to safety related equipment and is a major element in the facility fire protection program.

In the event that portions of the fire suppression systems are inoperable, alternate backup fire fighting equipment is required to be made available in the affected areas until the inoperable equipment is restored to service.

In the event the fire suppression water system becomes inoperable, immediate corrective measures must be taken since this system provides the major fire suppression capability of the plant. The requirement for a twenty-four hour report to the Commission provides for prompt evaluation of the acceptability of the corrective measures to provide adequate fire suppression capability for the continued protection of the nuclear plant.

3/4.7.10 PENETRATION FIRE BARRIERS

The functional integrity of the penetration fire barriers ensures that fires will be confined or adequately retarded from spreading to adjacent portions of the facility. This design feature minimizes the possibility of a single fire rapidly involving several areas of the facility prior to detection and extinguishment. The penetration fire barriers are a passive element in the facility fire protection program and are subject to periodic inspections.

During periods of time when the barriers are not functional, a continuous fire watch is required to be maintained in the vicinity of the affected barrier until the barrier is restored to functional status.

6.0 ADMINISTRATIVE CONTROLS

6.1 RESPONSIBILITY

6.1.1 The Plant Manager shall be responsible for overall facility operation and shall delegate in writing the succession to this responsibility during his absence.

6.2 ORGANIZATION

OFFSITE

6.2.1 The offsite organization for facility management and technical support shall be as shown on Figure 6.2-1.

FACILITY STAFF

6.2.2 The Facility organization shall be as shown on Figure 6.2-2 and:

a. Each on duty shift shall be composed of at least the minimum shift crew composition shown in Table 6.2-1.

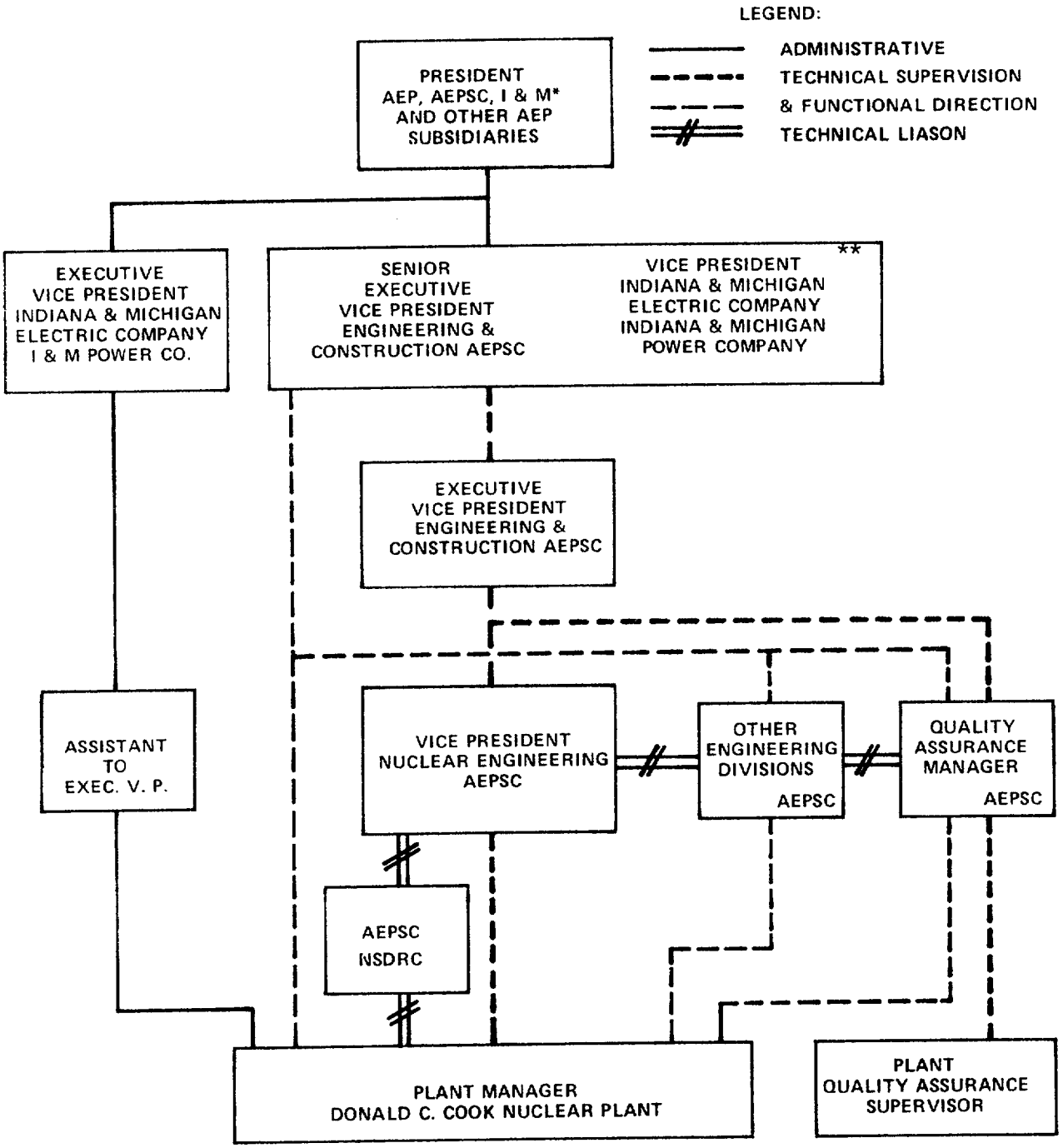
b. At least one licensed Operator shall be in the control room when fuel is in the reactor.

c. At least two licensed Operators shall be present in the control room during reactor start-up, scheduled reactor shutdown and during recovery from reactor trips.

d. An individual qualified in radiation protection procedures shall be on site when fuel is in the reactor.

e. All CORE ALTERATIONS after the initial fuel loading shall be directly supervised by either a licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling who has no other concurrent responsibilities during this operation.

f. A site Fire Brigade of at least 5 members shall be maintained onsite at all times. The fire Brigade shall not include 3 members of the minimum shift crew necessary for safe shutdown of the unit or any personnel required for other essential functions during a fire emergency.



*INDIANA AND MICHIGAN ELECTRIC COMPANY
AND INDIANA AND MICHIGAN POWER COMPANY
**Responsible for Fire Protection Program.

FIGURE 6.2-1 Offsite Organization for Facility Management and Technical Support

6.3 FACILITY STAFF QUALIFICATIONS

6.3.1 Each member of the facility staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971 for comparable position, except for the Radiation Protection Supervisor who shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975.

6.4 TRAINING

6.4.1 A retraining and replacement training program for the facility staff shall be maintained under the direction of the Training Coordinator and shall meet or exceed the requirements and recommendations of Section 5.5 of ANSI N18.1-1971 and Appendix "A" of 10 CFR Part 55.

6.4.2 A training program for the Fire Brigade shall be maintained under the direction of the Plant Manager and shall meet or exceed the requirements of Section 27 of the NFPA Code-1976.

6.5 REVIEW AND AUDIT

6.5.1 PLANT NUCLEAR SAFETY REVIEW COMMITTEE (PNSRC)

FUNCTION

6.5.1.1 The PNSRC shall function to advise the Plant Manager on all matters related to nuclear safety.

COMPOSITION

6.5.1.2 The PNSRC shall be composed of the:

Chairman:	Plant Manager or designated alternate
Member:	Asst. Plant Manager
Member:	Operations Supervisor
Member:	Technical Supervisor
Member:	Maintenance Supervisor
Member:	Instrument and Control Engineer
Member:	Nuclear Engineer
Member:	Chemical Supervisor
Member:	Performance Supervising Engineer
Member:	Radiation Protection Supervisor

ALTERNATES

6.5.1.3 All alternate members shall be appointed in writing by the PNSRC Chairman to serve on a temporary basis; however, no more than two alternates shall participate as voting members in PNSRC activities at any one time.

MEETING FREQUENCY

6.5.1.4 The PNSRC shall meet at least once per calendar month and as convened by the PNSRC Chairman or his designated alternate.

QUORUM

6.5.1.5 A quorum of the PNSRC shall consist of the Chairman or his designated alternate and four members including alternates.

RESPONSIBILITIES

6.5.1.6 The PNSRC shall be responsible for:

a. Review of 1) all procedures required by Specification 6.8 and changes thereto, 2) any other proposed procedures or changes thereto as determined by the Plant Manager to affect nuclear safety.

b. Review of all proposed tests and experiments that affect nuclear safety.

AUDITS

6.5.2.8 Audits of facility activities shall be performed under the cognizance of the NSDRC. These audits shall encompass:

a. The conformance of facility operation to provisions contained within the Technical Specifications and applicable license conditions at least once per 12 months.

b. The performance, training and qualifications of the entire facility staff at least once per 12 months.

c. The results of actions taken to correct deficiencies occurring in facility equipment, structures, systems or method of operation that affect nuclear safety at least once per 6 months.

d. The performance of activities required by the Quality Assurance Program to meet the criteria of Appendix "B", 10 CFR 50, at least once per 24 months.

e. The Facility Emergency Plan and implementing procedures at least once per 24 months.

f. The Facility Security Plan and implementing procedures at least once per 24 months.

g. Any other area of facility operation considered appropriate by the NSDRC.

h. The Facility Fire Protection Program and implementing procedures at least once per 24 months.

i. An independent fire protection and loss prevention program inspection and audit shall be performed at least once per 12 months utilizing either qualified offsite licensee personnel or an outside fire protection firm.

j. An inspection and audit of the fire protection and loss prevention program shall be performed by a qualified outside fire consultant at least once per 36 months.

RECORDS

6.5.2.10 Records of NSDRC activities shall be prepared, approved and distributed as indicated below:

a. Minutes of each NSDRC meeting shall be prepared, approved and forwarded to the Senior Executive Vice President, Engineering and Construction, AEPSC, within 14 days following each meeting.

b. Reports of reviews encompassed by Section 6.5.2.7 above, shall be prepared, approved and forwarded to the Senior Executive Vice President, Engineering and Construction, AEPSC, within 14 days following completion of the review.

c. Audit reports encompassed by Section 6.5.2.8 above, shall be forwarded to the Senior Executive Vice President, Engineering and Construction, AEPSC, and to the management positions responsible for the areas audited within 30 days after completion of the audit.

6.6 REPORTABLE OCCURRENCE ACTION

6.6.1 The following actions shall be taken for REPORTABLE OCCURRENCES:

a. The Commission shall be notified and/or a report submitted pursuant to the requirements of Specification 6.9.

b. Each REPORTABLE OCCURRENCE requiring 24 hour notification to the Commission shall be reviewed by the PNSRC and submitted to the NSDRC and the Vice President, Nuclear Engineering.

6.7 SAFETY LIMIT VIOLATION

6.7.1 The following actions shall be taken in the event a Safety Limit is violated:

a. The facility shall be placed in at least HOT STANDBY within one hour.

b. The Safety Limit violation shall be reported to the Commission and to the Chairman of the NSDRC within 24 hours.

c. A Safety Limit Violation Report shall be prepared. The report shall be reviewed by the PNSRC. This report shall describe (1) applicable circumstances preceding the violation, (2) effects of the violation upon facility components, systems or structures, and (3) corrective action taken to prevent recurrence.

d. The Safety Limit Violation Report shall be submitted to the Commission, the Chairman of the NSDRC and the Vice President, Nuclear Engineering within 10 days of the violation.

6.8 PROCEDURES

6.8.1 Written procedures shall be established, implemented and maintained covering the activities referenced below:

a. The applicable procedures recommended in Appendix "A" of Regulatory Guide 1.33, November, 1972.

b. Refueling operations.

c. Surveillance and test activities of safety related equipment.

d. Security Plan implementation.

e. Emergency Plan implementation.

f. Fire Protection Program implementation.

6.8.2 Each procedure and administrative policy of 6.8.1 above, and changes thereto, shall be reviewed by the PNSRC and approved by the Plant Manager prior to implementation and reviewed periodically as set forth in administrative procedures.

6.8.3 Temporary changes to procedures of 6.8.1 above may be made provided:

a. The intent of the original procedure is not altered.

b. The change is approved by two members of the plant management staff, at least one of whom holds a Senior Reactor Operator's License on the unit affected.

c. The change is documented, reviewed by the PNSRC and approved by the Plant Manager within 14 days of implementation.

6.9 REPORTING REQUIREMENTS

ROUTINE REPORTS AND REPORTABLE OCCURRENCES

6.9.1 Information to be reported to the Commission, in addition to the reports required by Title 10, Code of Federal Regulations, shall be in accordance with the Regulatory Position in Revision 4 of Regulatory Guide 1.16, "Reporting of Operating Information - Appendix "A" Technical Specifications."

SPECIAL REPORTS

6.9.2 Special reports shall be submitted to the Director of the Office of Inspection and Enforcement Regional Office within the time period specified for each report. These reports shall be submitted covering the activities identified below pursuant to the requirements of the applicable reference specification:

a. Inservice Inspection Program Review, Specification 4.4.10.

b. ECCS Actuation, Specifications 3.5.2 and 3.5.3.

c. Inoperable Seismic Monitoring Instrumentation, Specification 3.3.3.3.

d. Inoperable Meteorological Monitoring Instrumentation, Specification 3.3.3.4.

6.9 REPORTING REQUIREMENTS (Continued)

e. Seismic event analysis, Specification 4.3.3.3.2.

f. Sealed Source leakage on excess of limits, Specification 4.7.9.1.3.

g. Fire Detection Instrumentation, Specification 3.3.3.7.

h. Fire Suppression Systems, Specifications 3.7.9.1, 3.7.9.2, 3.7.9.3 and 3.7.9.4.

6.10 RECORD RETENTION

6.10.1 The following records shall be retained for at least five years:

a. Records and logs of facility operation covering time interval at each power level.

b. Records and logs of principal maintenance activities, inspections, repair and replacement of principal items of equipment related to nuclear safety.

c. All REPORTABLE OCCURRENCES submitted to the Commission.

d. Records of surveillance activities, inspections and calibrations required by these Technical Specifications.

e. Records of reactor tests and experiments.

f. Records of changes made to Operating Procedures.

g. Records of radioactive shipments.

h. Records of sealed source leak tests and results.

i. Records of annual physical inventory of all sealed source material of record.

6.10.2 The following records shall be retained for the duration of the Facility Operating License:

a. Records and drawing changes reflecting facility design modifications made to systems and equipment described in the Final Safety Analysis Report.

b. Records of new and irradiated fuel inventory, fuel transfers and assembly burnup histories.

c. Records of facility radiation and contamination surveys.

d. Records of radiation exposure for all individuals entering radiation control areas.

e. Records of gaseous and liquid radioactive material released to the environs.

f. Records of transient or operational cycles for those facility components identified in Table 5.9-1.

g. Records of training and qualification for current members of the plant staff.

h. Records of in-service inspections performed pursuant to these Technical Specifications.

i. Records of Quality Assurance activities required by the QA Manual.

j. Records of reviews performed for changes made to procedures or equipment or reviews of tests and experiments pursuant to 10 CFR 50.59.

k. Records of meetings of the PNSRC and the NSDRC.

6.11 RADIATION PROTECTION PROGRAM

Procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and shall be approved, maintained and adhered to for all operations involving personnel radiation exposure.

6.12 RESPIRATORY PROTECTION PROGRAM

ALLOWANCE

6.12.1 Pursuant to 10 CFR 20.103(c)(1) and (3), allowance may be made for the use of respiratory protective equipment in conjunction with activities authorized by the operating license for this facility in determining whether individuals in restricted areas are exposed to concentrations in excess of the limits specified in Appendix B, Table I, Column 1, of 10 CFR 20, subject to the following conditions and limitations:

a. The limits provided in Section 20.103(a) and (b) shall not be exceeded.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 22 TO FACILITY OPERATING LICENSE NO. DPR-58

INDIANA & MICHIGAN ELECTRIC COMPANY

INDIANA & MICHIGAN POWER COMPANY

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1

DOCKET NO. 50-315

INTRODUCTION

Following a fire at the Browns Ferry Nuclear Station in March 1975, we initiated an evaluation of the need for improving the fire protection programs at all licensed nuclear power plants. As part of this continuing evaluation, in February 1976 we published a report entitled "Recommendations Related to Browns Ferry Fire", NUREG-0050. This report recommended that improvements in the areas of fire prevention and fire control be made in most existing facilities and that consideration be given to design features that would increase the ability of nuclear facilities to withstand fires without the loss of important functions. To implement the report's recommendations, the NRC initiated a program for reevaluation of the fire protection programs at all licensed nuclear power stations and for a comprehensive review of all new license applications.

We have issued new guidelines for fire protection programs in nuclear power plants. These guidelines reflect the recommendations in NUREG-0050. These guidelines are contained in the following documents:

"Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants," NUREG-75/087, Section 9.5.1, "Fire Protection," May 1976, which includes "Guidelines for Fire Protection for Nuclear Power Plants," (BTP APCSB 9.5-1), May 1, 1976.

"Guidelines for Fire Protection for Nuclear Power Plants"(Appendix A to BTP APCSB 9.5-1), August 23, 1976.

"Supplementary Guidance on Information Needed for Fire Protection Program Evaluation," September 30, 1976.

"Nuclear Plant Fire Protection Functional Responsibilities, Administrative Controls and Quality Assurance," June 14, 1977.

In addition to the above guidelines and the subsequent action requested from all licensees, by letter dated September 30, 1976, we requested Indiana & Michigan Electric Company and Indiana & Michigan Power Company (I&M, the licensee) to submit interim technical specifications for presently - installed fire protection equipment at the Donald C. Cook Nuclear Plant. The intent of these interim specifications was to assure that the present fire protection system would be available during the time period in which the D. C. Cook fire hazards analysis was being evaluated and final technical specifications were prepared.

Subsequently, I&M provided proposed technical specifications by letter dated January 31, 1977. Based on our review and consideration of the I&M response and the responses of other licensees, we modified certain action statements and surveillance frequencies in order to provide more appropriate and consistent specifications. These specifications were forwarded to I&M by letter dated June 24, 1977. This letter also requested that the licensee submit appropriately revised specifications.

By letter dated July 20, 1977, I&M proposed modified fire protection technical specifications based on the guidance in our June 24, 1977 letter. We have reviewed the I&M submittal and have determined that some modifications are necessary to assure conformance with our requirements as set forth in the sample Technical Specifications pending completion of our ongoing detailed review of fire protection at this facility. We have discussed these modifications with I&M, and they have agreed to all modifications. However, it will be necessary to provide a period of time to modify procedures to conform with the details of the modifications to the Technical Specifications and to provide time to complete the required personnel training where necessary; therefore, the amendment would become effective 30 days after the date of issue.

DISCUSSION AND EVALUATION

The guidelines for technical specifications that we developed and sent to all licensees are based on assuring that the fire protection equipment currently installed for the protection of safety related areas of the plant is operable. This assurance is obtained by requiring periodic surveillance of the equipment and by requiring certain corrective actions to be taken if the limiting conditions for operation cannot be met. These guidelines also include administrative features for the overall fire protection program such as interim fire brigade requirements, training, procedures, management review and periodic independent fire protection and loss prevention program inspections. The basis for the staff position relating to the minimum acceptable size of fire brigades is attached to this Safety Evaluation.

The equipment and components currently existing at this facility included in the scope of these Technical Specification requirements are fire detectors, the fire suppression systems, the hose stations, and piping and cabling penetration fire barriers. Operability of the fire detection instrumentation provides warning capability for the prompt detection of fires, to reduce the potential for damage to safety related equipment by allowing rapid response of fire suppression equipment. In the event that the minimum coverage of fire detectors cannot be met, hourly fire patrols are required in the affected area until the inoperable instrumentation is restored to operability. The operability of the fire suppression system provides capability to confine and extinguish fires. In the event that portions of the fire suppression system are inoperable, alternate backup fire fighting equipment is required to be made available in the affected areas until the inoperable equipment is returned to service. In the event that the fire suppression water system becomes inoperable, a backup fire protection water system is required within 24 hours and a report to the NRC is required within 24 hours to provide for prompt evaluation of the acceptability of the corrective measures for adequate fire suppression capability. The functional integrity of the penetration fire barriers provides protection to confine or retard fires from spreading to adjacent portions of the facility. During periods of time when a fire barrier is not functional, a continuous fire watch is required to be maintained in the vicinity of the affected barrier to provide fire prevention methods and prompt detection and suppression in the event of a fire.

We have reviewed the proposed D. C. Cook interim Technical Specifications against our guidelines and have concluded that they are in conformance with our requirements.

Therefore, we have found these specifications acceptable on an interim basis until such time that our overall review is complete, required equipment is installed and operable, and final specifications have been developed and issued.

In the report of the Special Review Group on the Browns Ferry Fire (NUREG-0050) dated February 1976, consideration of the safety of operation of all operating nuclear power plants pending the completion of our detailed fire protection evaluation was presented. The following quotations from the report summarize the basis for our conclusion that the operation of the plants, until we complete our review, does not present an undue risk to the health and safety of the public.

> "A probability assessment of public safety or risk in quantitative terms is given in the Reactor Safety Study (WASH-1400). As the result of the calculation based on the Browns Ferry fire, the study concludes that the potential for a significant release of radioactivity from such a fire is about 20% of that calculated from all other causes analyzed. This indicates that predicted potential accident risks from all causes were not greatly affected by consideration of the Browns Ferry fire. This is one of the reasons that urgent action in regard to reducing risks due to potential fires is not required. The study (WASH-1400) also points out that 'rather straightforward measures, such as may already exist at other nuclear plants, can significantly reduce the likelihood of a potential core melt accident that might result from a large fire.' The Review Group agrees.

"Fires occur rather frequently; however, fires involving equipment unavailability comparable to the Browns Ferry fire are quite infrequent (see Section 3.3 [of NUREG-0050]). The Review Group believes that steps already taken since March 1975 (see Section 3.3.2) have reduced this frequency significantly.

"Based on its review of the events transpiring before, during and after the Browns Ferry fire, the Review Group concludes that the probability of disruptive fires of the magnitude of the Browns Ferry event is small, and that there is no need to restrict operation of nuclear power plants for public safety. However, it is clear that much can and should be done to reduce even further the likelihood of disabling fires and to improve assurance of rapid extinguishment of fires that occur. Consideration should be given also to features that would increase further the ability of nuclear facilities to withstand large fires without loss of important functions should such fires occur."

Subsequent to the Browns Ferry fire and prior to the Special Review Group's investigation, the Office of Inspection and Enforcement took steps with regard to fire protection. Special bulletins were sent to all licensees of operating power reactors on March 24, 1975, and April 3, 1975, directing the imposition of certain controls over fire ignition sources, a review of procedures for controlling maintenance and modifications that might affect fire safety, a review of emergency procedures for alternate shutdown and cooling methods, and a review of flammability of materials used in floor and wall penetration seals. Special inspections covering the installation of fire stops in electrical cables and in penetration seals were completed at all operating power reactors in April and May 1975. Inspection findings which reflected non-compliance with NRC requirements resulted in requiring corrective action by licensees. Follow-up inspections have confirmed that licensees are taking the required corrective actions and that administrative control procedures are in place.

Since these inspection activities and the subsequent Special Review Group recommendations in the 1975 to 1976 time period, there has been no new information to alter the conclusions of the Special Review Group, and the ongoing fire protection program flowing from those conclusions is still adequate.

Therefore, we have found these specifications acceptable on an interim basis until such time that our overall review is complete, required equipment is installed and operable, and final specifications have been developed and issued.

ENVIRONMENTAL CONSIDERATION

We have determined that the planned 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 planned 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 accidents previously considered and does not involve a significant decrease in a safety margin, 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 planned amendment will not be inimical to the common defense and security or to the health and safety of the public.

Attachment: Staff Position - Minimum Fire Brigade Shift Size

Date: December 12, 1977

Staff Position

Minimum Fire Brigade Shift Size

INTRODUCTION

Nuclear power plants depend on the response of an onsite fire brigade for defense against the effects of fire on plant safe shutdown capabilities. In some areas, actions by the fire brigade are the only means of fire suppression. In other areas, that are protected by correctly designed automatic detection and suppression systems, manual fire fighting efforts are used to extinguish: (1) fires too small to actuate the automatic system; (2) well developed fires if the automatic system fails to function; and (3) fires that are not completely controlled by the automatic system. Thus, an adequate fire brigade is essential to fulfill the defense in depth requirements which protect safe shutdown systems from the effects of fires and their related combustion by-products.

DISCUSSION

There are a number of factors that should be considered in establishing the minimum fire brigade shift size. They include:

1) plant geometry and size;
2) quantity and quality of detection and suppression systems;
3) fire fighting strategies for postulated fires;
4) fire brigade training;
5) fire brigade equipment; and
6) fire brigade supplements by plant personnel and local fire department(s).

In all plants, the majority of postulated fires are in enclosed windowless structures. In such areas, the working environment of the brigade created by the heat and smoke buildup within the enclosure, will require the use of self-contained breathing apparatus, smoke ventilation equipment, and a personnel replacement capability.

Certain functions must be performed for all fires, i.e., command brigade actions, inform plant management, fire suppression, ventilation control, provide extra equipment, and account for possible injuries. Until a site specific review can be completed, an interim minimum fire brigade size of five persons has been established. This brigade size should provide a minimum working number of personnel to deal with those postulated fires in a typical presently operating commercial nuclear power station.

If the brigade is composed of a smaller number of personnel, the fire attack may be stopped whenever new equipment is needed or a person is injured or fatigued. We note that in the career fire service, the minimum engine company manning considered to be effective for an initial attack on a fire is also five, including one officer and four team members.

It is assumed for the purposes of this position that brigade training and equipment is adequate and that a backup capability of trained individuals exist whether through plant personnel call back or from the local fire department.

POSITION

1. The minimum fire brigade shift size should be justified by an analysis of the plant specific factors stated above for the plant, after modifications are complete.

2. In the interim, the minimum fire brigade shift size shall be five persons. These persons shall be fully qualified to perform their assigned responsibility, and shall include:

   One Supervisor - This individual must have fire tactics training. He will assume all command responsibilities for fighting the fire. During plant emergencies, the brigade supervisor should not have other responsibilities that would detract from his full attention being devoted to the fire. This supervisor should not be actively engaged in the fighting of the fire. His total function should be to survey the fire area, command the brigade, and keep the upper levels of plant management informed.

   Two Hose Men - A 1.5 inch fire hose being handled within a windowless enclosure would require two trained individuals. The two team members are required to physically handle the active hose line and to protect each other while in the adverse environment of the fire.

   Two Additional Team Members - One of these individuals would be required to supply filled air cylinders to the fire fighting members of the brigade and the second to establish smoke ventilation and aid in filling the air cylinder. These two individuals would also act as the first backup to the engaged team.

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-315

INDIANA & MICHIGAN ELECTRIC COMPANY

INDIANA & MICHIGAN POWER COMPANY

NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 22 to Facility Operating License No. DPR-58, issued to Indiana & Michigan Electric Company and Indiana & Michigan Power Company (the licensees), which revised the Technical Specifications for operation of the Donald C. Cook Nuclear Plant Unit No. 1 (the facility) located in Berrien County, Michigan. The amendment will become effective thirty days after its date of issuance.

The amendment incorporates fire protection Technical Specifications on the existing fire protection equipment and adds administrative controls related to fire protection at the facility. This action is being taken pending completion of our overall fire protection review of the facility.

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.

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 the amendment.

For further details with respect to this action, see (1) the application for amendment dated July 20, 1977, (2) Amendment No. 22 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 single 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 Operating Reactors.

Dated at Bethesda, Maryland, this 12th day of December, 1977.

FOR THE NUCLEAR REGULATORY COMMISSION

Don K. Davis, Acting Chief
Operating Reactors Branch #2
Division of Operating Reactors