Docket No.: 50-315

December 20, 1986

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

Dear Mr. Dolan:

The Commission has issued the enclosed Amendment No. 100 to Facility Operating License No. DPR-58 D. C. Cook Nuclear Plant, Unit No. 1. The amendment consists of changes to the Technical Specifications in response to your applications transmitted by letters dated October 1 and October 31, 1986.

The amendment revises the Technical Specifications to extend certain surveillances due to the lengthened Cycle 9 operation.

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

Sincerely,

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

Enclosures:
1. Amendment No. 100 to DPR-58
2. Safety Evaluation

cc: w/enclosures
See next page

PWR#4/DPWR-A	PWR#4/DPWR-A	PWR#4/DPWR-A
DWigginton/mac	MDuncan	BJYoungblood
12/18/86	12/18/86	12/19/86

cc:
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The Honorable John E. Grotberg
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Regional Administrator, Region III
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J. Feinstein
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Service Corporation
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Columbus, Ohio 43216

Dated: December 20, 1986

AMENDMENT NO. 100TO FACILITY OPERATING LICENSE NO. DPR-58 - DONALD C. COOK, UNIT 1

DISTRIBUTION: w/enclosures

[redacted]

NRC PDR
Local PDR
PWR#4 Reading
M. Duncan
D. Wigginton
B. J. Youngblood Reading
ACRS (10)
OGC - Bethesda
J. Partlow
B. Grimes
E. Jordan
R. Diggs
T. Barnhart (4)
W. Jones
E. Butcher
L. Harmon
FOB
OPA
LFMB

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. 100
License No. DPR-58

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

   A. The applications for amendment by Indiana and Michigan Electric Company (the licensee) dated October 1 and October 31, 1986, comply 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.100, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. The Technical Specification changes shall be effected within 45 days of receipt of this amendment.

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

FOR THE NUCLEAR REGULATORY COMMISSION

/S/

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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: December 20, 1986

*SEE PREVIOUS CONCURRENCE

DPWR#4/DPWR-A	PWR#4/DPWR-A	OGC/Bethesda	PWR#4/DPWR-A
*DWigginton/mac	*MDuncan	*Scinto	*BJYoungblood
12/ /86	12/ /86	12/ /86	12/19/86

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 100 FACILITY OPERATING LICENSE NO. DPR-58

DOCKET NO. 50-315

Revise Appendix A as follows:

Remove Pages	Insert Pages
3/4 0-3	3/4 0-3
3/4 3-1	3/4 3-1
3/4 3-12	3/4 3-12
3/4 3-13	3/4 3-13
3/4 3-15	3/4 3-15
3/4 3-31	3/4 3-31
3/4 3-32	3/4 3-32
3/4 3-33	3/4 3-33
3/4 3-33a	3/4 3-33a
3/4 3-47*	3/4 3-47*
3/4 3-48	3/4 3-48
3/4 3-56	3/4 3-56
3/4 4-14	3/4 4-14
3/4 4-35	3/4 4-35
3/4 4-36	3/4 4-36
3/4 5-5	3/4 5-5
3/4 5-8	3/4 5-8
3/4 6-37*	3/4 6-37*
3/4 6-38	3/4 6-38
3/4 7-6	3/4 7-6
3/4 7-17	3/4 7-17
3/4 7-28	3/4 7-28
3/4 7-45	3/4 7-45
3/4 8-3	3/4 8-3
3/4 8-5	3/4 8-5
3/4 8-6*	3/4 8-6*
3/4 8-14	3/4 8-14

* Included for Convenience

b. Surveillance intervals specified in Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda for the inservice inspection and testing activities required by the ASME Boiler and Pressure Vessel Code and applicable Addenda shall be applicable as follows in these Technical Specifications:

ASME Boiler and Pressure Vessel Code and applicable Addenda terminology for inservice inspection and testing criteria	Required frequencies for performing inservice inspection and testing activities
Weekly	At least once per 7 days
Monthly	At least once per 31 days
Quarterly or every 3 months	At least once per 92 days
Semiannually or every 6 months	At least once per 184 days
Yearly or annually	At least once per 366 days

c. The provisions of Specification 4.0.2 are applicable to the above required frequencies for performing inservice inspection and testing activities.

d. Performance of the above inservice inspection and testing activities shall be in addition to other specified Surviellance Requirements.

e. Nothing in the ASME Boiler and Pressure Vessel Code shall be construed to supersede the requirements of any Technical Specification.

4.0.6 By specific reference to this section, those surveillances which must be performed on or before July 31, 1987, and are designated as 18-month surveillances (or required as outage-related surveillances) may be delayed until the end of the Cycle 9-10 refueling outage (currently scheduled to begin during the second quarter of 1987). For these specific surveillances under this section, the specified time intervals required by Specification 4.0.2 will be determined with the new initiation date established by the surveillance date during the Unit 1 1987 refueling outage.

3/4.3 INSTRUMENTATION

3/4.3.1 REACTOR TRIP SYSTEM INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.1.1 As a minimum, the reactor trip system instrumentation channels and interlocks of Table 3.3-1 shall be OPERABLE with RESPONSE TIMES as shown in Table 3.3-2.

APPLICABILITY: As shown in Table 3.3-1.

ACTION:

As shown in Table 3.3-1.

SURVEILLANCE REQUIREMENTS

4.3.1.1.1 Each reactor trip system instrumentation channel shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST operations for the MODES and at the frequencies shown in Table 4.3-1.

4.3.1.1.2 The logic for the interlocks shall be demonstrated OPERABLE prior to each reactor startup unless performed during the preceding 92 days. The total interlock function shall be demonstrated OPERABLE at least once per 18 months during CHANNEL CALIBRATION testing of each channel affected by interlock operation.

4.3.1.1.3 The REACTOR TRIP SYSTEM RESPONSE TIME of each reactor trip function shall be demonstrated to be within its limit at least once per 18 months. Each test shall include at least one logic train such that both logic trains are tested at least once per 36 months and one channel per function such that all channels are tested at least once every N times 18 months where N is the total number of redundant channels in a specific reactor trip function as shown in the "Total No. of Channels" column of Table 3.3-1. *

* The provisions of Specification 4.0.6 are applicable.

TABLE 4.3-1

REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES IN WHICH SURVEILLANCE REQUIRED
1. Manual Reactor Trip				
A. Shunt Trip Function	N.A.	N.A.	S/U(1) (10)	1, 2, 3*, 4*, 5*
B. Undervoltage Trip Function	N.A.	N.A.	S/U(1) (10)	1, 2, 3*, 4*, 5*
2. Power Range, Neutron Flux	S	D(2), M(3) and Q(6)	M	1, 2 and *
3. Power Range, Neutron Flux, High Positive Rate	N.A.	R (6)	M	1, 2
4. Power Range, Neutron Flux, High Negative Rate	N.A.	R (6)	M	1, 2
5. Intermediate Range, Neutron Flux	S	R(6)	S/U(1)	1, 2 and *
6. Source Range, Neutron Flux	S	R(6)	M and S/U(1)	2(7), 3(7), 4 and 5
7. Overtemperature ΔT	S	R +	M	1, 2
8. Overpower ΔT	S	R +	M	1, 2
9. Pressurizer Pressure--Low	S	R +	M	1, 2
10. Pressurizer Pressure--High	S	R +	M	1, 2
11. Pressurizer Water Level--High	S	R +	M	1, 2
12. Loss of Flow - Single Loop	S	R	M	1

+ The provisions of Specification 4.0.6 are applicable.

TABLE 4.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES IN WHICH SURVEILLANCE REQUIRED
13. Loss of Flow - Two Loops	S	R	N.A.	1
14. Steam Generator Water Level--Low-Low	S	R+	M	1, 2
15. Steam/Feedwater Flow Mismatch and Low Steam Generator Water Level	S	R+	M	1, 2
16. Undervoltage - Reactor Coolant Pumps	N.A.	R	M	1
17. Underfrequency - Reactor Coolant Pumps	N.A.	R	M	1
18. Turbine Trip				
A. Low Fluid Oil Pressure	N.A.	N.A.	S/U(1)	1, 2
B. Turbine Stop Valve Closure	N.A.	N.A.	S/U(1)	1, 2
19. Safety Injection Input from ESF	N.A.	N.A.	M(4)	1, 2
20. Reactor Coolant Pump Breaker Position Trip	N.A.	N.A.	R	N.A.
21. Reactor Trip Breaker				
A. Shunt Trip Function	N.A.	N.A.	M(5)(11)and S/U(1)(11)	1, 2, 3*, 4*, 5*
B. Undervoltage Trip Function	N.A.	N.A.	M(5)(11) and S/U(1)(11)	1, 2, 3*, 4*, 5*
22. Automatic Trip Logic	N.A.	N.A.	M(5)	1, 2, 3*, 4*, 5*
23. Reactor Trip Bypass Breaker	N.A.	N.A.	M(12) and S/U(1)(13)	1, 2, 3*, 4*, 5*

+ The provisions of Specification 4.0.6 are applicable.

INSTRUMENTATION

3/4.3.2 ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.2.1 The Engineered Safety Feature Actuation System (ESFAS) instrumentation channels and interlocks shown in Table 3.3-3 shall be OPERABLE with their trip setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3-4 and with RESPONSE TIMES as shown in Table 3.3-5.

APPLICABILITY: As shown in Table 3.3-3.

ACTION:

a. With an ESFAS instrumentation channel trip setpoint less conservative than the value shown in the Allowable Values column of Table 3.3-4, declare the channel inoperable and apply the applicable ACTION requirement of Table 3.3-3 until the channel is restored to OPERABLE status with the trip setpoint adjusted consistent with the Trip Setpoint value. *

b. With an ESFAS instrumentation channel inoperable, take the ACTION shown in Table 3.3-3.

SURVEILLANCE REQUIREMENTS

4.3.2.1.1 Each ESFAS instrumentation channel shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST operations for the MODES and at the frequencies shown in Table 4.3-2.

4.3.2.1.2 The logic for the interlocks shall be demonstrated OPERABLE during the automatic actuation logic test. The total interlock function shall be demonstrated OPERABLE at least once per 18 months during CHANNEL CALIBRATION testing of each channel affected by interlock operation. *

4.3.2.1.3 The ENGINEERED SAFETY FEATURES RESPONSE TIME of each ESFAS function shall be demonstrated to be within the limit at least once per 18 months. Each test shall include at least one logic train such that both logic trains are tested at least once per 36 months and one channel per function such that all channels are tested at least once per N times 18 months where N is the total number of redundant channels in a specific ESFAS function as shown in the "Total No. of Channels" Column of Table 3.3-3. *

* The provisions of Specification 4.0.6 are applicable.

TABLE 4.3-2

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES IN WHICH SURVEILLANCE REQUIRED
1. SAFETY INJECTION, TURBINE TRIP, FEEDWATER ISOLATION, AND MOTOR DRIVEN AUXILIARY FEEDWATER PUMPS				
a. Manual Initiation	N.A.	N.A.	M(1)	1, 2, 3, 4
b. Automatic Actuation Logic	N.A.	N.A.	M(2)	1, 2, 3, 4
c. Containment Pressure-High	S	R+	M(3)	1, 2. 3
d. Pressurizer Pressure--Low	S	R+	M	1, 2, 3
e. Differential Pressure Between Steam Lines--High	S	R+	M	1, 2, 3
f. Steam Flow in Two Steam Lines--High Coincident with T_{avg}--Low or Steam Line Pressure--Low	S	R+	M	1, 2, 3
2. CONTAINMENT SPRAY				
a. Manual Initiation	N.A.	N.A.	M(1)	1, 2, 3, 4
b. Automatic Actuation Logic	N.A.	N.A.	M(2)	1, 2, 3, 4
c. Containment Pressure--High-High	S	R+	M(3)	1, 2, 3

+ The provisions of Specification 4.0.6 are applicable.

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES IN WHICH SURVEILLANCE REQUIRED
3. CONTAINMENT ISOLATION				
a. Phase "A" Isolation				
1) Manual	N.A.	N.A.	M(1)	1, 2, 3, 4
2) From Safety Injection Automatic Actuation Logic	N.A.	N.A.	M(2)	1, 2, 3, 4
b. Phase "B" Isolation				
1) Manual	N.A.	N.A.	M(1)	1, 2, 3, 4
2) Automatic Actuation Logic	N.A.	N.A.	M(2)	1, 2, 3, 4
3) Containment Pressure--High-High	S	R+	M(3)	1, 2, 3
c. Purge and Exhaust Isolation				
1) Manual	N.A.	N.A.	M(1)	1, 2, 3, 4
2) Containment Radioactivity-High	S	R	M	1, 2, 3, 4

+ The provisions of Specification 4.0.6 are applicable.

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	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 Lines--High Coincident with T_{avg} -- Low-Low Pressure--Low	S	R+	M	1, 2, 3
5. TURBINE TRIP AND FEEDWATER ISOLATION				
a. Steam Generator Water Level--High-High	S	R+	M	1, 2, 3
6. MOTOR DRIVEN AUXILIARY FEEDWATER PUMPS				
a. Steam Generator Water Level--Low-Low	S	R+	M	1, 2, 3
b. 4 kv Bus Loss of Voltage	S	R+	M	1, 2, 3
c. Safety Injection	N.A.	N.A.	M(2)	1, 2, 3
d. Loss of Main Feed Pumps	N.A.	N.A.	R+	1, 2, 3

+ The provisions of Specification 4.0.6 are applicable.

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES IN WHICH SURVEILLANCE REQUIRED
7. TURBINE DRIVEN AUXILIARY FEEDWATER PUMPS				
a. Steam Generator Water Level--Low-Low	S	R +	M	1, 2, 3
b. Reactor Coolant Pump Bus Undervoltage	N.A.	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 Loss of Voltage	S	R +	M	1, 2, 3, 4

+ The provisions of Specification 4.0.6 are applicable.

TABLE 3.3-9

REMOTE SHUTDOWN MONITORING INSTRUMENTATION

INSTRUMENT	READOUT LOCATION	MEASUREMENT RANGE	MINIMUM CHANNELS OPERABLE
1. Reactor Trip Breaker Indication	Hot Shutdown Panel in Unit No. 2 Control Room	OPEN-CLOSE	1/trip breaker
2. Pressurizer Pressure	Hot Shutdown Panel in Unit No. 2 Control Room	1700-2500 psig	1
3. Pressurizer Level	Hot Shutdown Panel in Unit No. 2 Control Room	0-100% of instrument span	1
4. Steam Generator Pressure	Hot Shutdown Panel in Unit No. 2 Control Room	0-1200 psig	1/steam generator
5. Steam Generator Level	Hot Shutdown Panel in Unit No. 2 Control Room	0-100% wide range instrument span	1/steam generator

TABLE 4.3-6

REMOTE SHUTDOWN MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION
1. Reactor Trip Breaker Indication	N.A.	N.A.
2. Pressurizer Pressure	M	R +
3. Pressurizer Level	M	R +
4. Steam Generator Level	M	R
5. Steam Generator Pressure	M	R +

+ The provision of Specification 4.0.6 are applicable

TABLE 4.3-7

POST-ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION
1. Containment Pressure	M	R *
2. Reactor Coolant Outlet Temperature - T_{HOT} (Wide Range)	M	R
3. Reactor Coolant Inlet Temperature - T_{COLD} (Wide Range)	M	R
4. Reactor Coolant Pressure - Wide Range	M	R
5. Pressurizer Water Level	M	R*
6. Steam Line Pressure	M	R*
7. Steam Generator Water Level - Narrow Range	M	R*
8. RWST Water Level	M	R
9. Boric Acid Tank Solution Level	M	R
10. Auxiliary Feedwater Flow Rate	M	R
11. Reactor Coolant System Subcooling Margin Monitor	M	R
12. PORV Position Indicator - Limit Switches	M	R*
13. PORV Block Valve Position Indicator - Limit Switches	M	R
14. Safety Valve Position Indicator - Acoustic Monitor	M	R

* The provisions of Specification 4.0.6 are applicable.

3/4.4.6 REACTOR COOLANT SYSTEM LEAKAGE

LEAKAGE DETECTION SYSTEMS

LIMITING CONDITION FOR OPERATION

3.4.6.1 The following Reactor Coolant System leakage detection systems shall be OPERABLE:

a. One of the containment atmosphere particulate radioactivity monitoring channels (ERS-1301 or ERS-1401),

b. The containment sump level and flow monitoring system, and

c. Either the containment humidity monitor or one of the containment atmosphere gaseous radioactivity monitoring channels (ERS-1305 or ERS-1405).

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With only two of the above required leakage detection systems OPERABLE, operation may continue for up to 30 days provided grab samples of the containment atmosphere are obtained and analyzed at least once per 24 hours when the required gaseous and/or particulate radioactivity monitoring channels are inoperable; otherwise, be in at least HOT STANDBY within the next 6 hours* and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.4.6.1 The leakage detection systems shall be demonstrated OPERABLE by:

a. Containment atmosphere particulate and gaseous (if being used) monitoring system-performance of CHANNEL CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST at the frequencies specified in Table 4.3-3,

b. Containment sump level and flow monitoring system-performance of CHANNEL CALIBRATION at least once per 18 months,*

c. Containment humidity monitor (if being used) - performance of CHANNEL CALIBRATION at least once per 18 months.

* The provisions of Specification 4.0.6 are applicable.

REACTOR COOLANT SYSTEM

RELIEF VALVES - OPERATING

LIMITING CONDITION FOR OPERATION

3.4.11 Three power operated relief valves (PORVs) and their associated block valves shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

a. With one or more PORV(s) inoperable, within 1 hour either restore the PORV(s) to OPERABLE status or close the associated block valve(s) and remove power from the block valve(s); otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With one or more block valve(s) inoperable, within 1 hour either (1) restore the block valve(s) to OPERABLE status, or (2) close the block valve(s) and remove power from the block valve(s), or (3) close the associated PORV(s) and remove power from the associated solenoid valve(s); otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.*

c. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.4.11.1 Each of the three PORVs shall be demonstrated OPERABLE:

a. At least once per 31 days by performance of a CHANNEL FUNCTIONAL TEST, excluding valve operation, and

b. At least once per 18 months by performance of a CHANNEL CALIBRATION. **

*When ACTION 3.4.11.b.(3) is applied, no report pursuant to Specification 6.9.1.9 is required for the PORV.

** The provisions of Specification 4.0.6 are applicable.

SURVEILLANCE REQUIREMENTS (Continued)

4.4.11.2 Each of the three block valves shall be demonstrated OPERABLE at least once per 92 days by operating the valve through one complete cycle of full travel. The block valve(s) do not have to be tested nor is a report required pursuant to Specification 6.9.1.9 when ACTION 3.4.11.a is applied.

4.4.11.3 The emergency power supply for the PORVs and block valves shall be demonstrated OPERABLE at least once per 18 months by operating the valves through a complete cycle of full travel while the emergency buses are energized by the onsite diesel generators and onsite plant batteries. This testing can be performed in conjunction with the requirements of Specifications 4.8.1.1.2.b and 4.8.2.3.2.c.*

* The provisions of Specification 4.0.6 are applicable.

SURVEILLANCE REQUIREMENTS (Continued)

d. At least once per 18 months by: *

1. Verifying automatic isolation and interlock action of the RHR system from the Reactor Coolant System when the Reactor Coolant System pressure is above 600 psig.

2. A visual inspection of the containment sump and verifying that the subsystem suction inlets are not restricted by debris and that the sump components (trash racks, screens, etc.) show no evidence of structural distress or abnormal corrosion.

e. At least once per 18 months, during shutdown, by:

1. Verifying that each automatic valve in the flow path actuates to its correct position on a Safety Injection test signal.

2. Verifying that each of the following pumps start automatically upon receipt of a safety injection test signal:

a) Centrifugal charging pump

b) Safety injection pump

c) Residual heat removal pump

f. By verifying that each of the following pumps develops the indicated discharge pressure on recirculation flow when tested pursuant to Specification 4.0.5 at least once per 31 days on a STAGGERED TEST BASIS.

1. Centrifugal charging pump $\geq$ 2405 psig

2. Safety Injection pump $\geq$ 1445 psig

3. Residual heat removal pump $\geq$ 195 psig

g. By verifying the correct position of each mechanical stop for the the following Emergency Core Cooling System throttle valves:

1. Within 4 hours following completion of each valve stroking operation or maintenance on the valve when the ECCS subsystems are required to be OPERABLE.

* The provisions of Specification 4.0.6 are applicable.

Amendment No. 100

SURVEILLANCE REQUIREMENTS

4.5.3.1 The ECCS subsystem shall be demonstrated OPERABLE per the applicable Surveillance Requirements of 4.5.2. *

4.5.3.2 All charging pumps and safety injection pumps, except the above required OPERABLE charging pump, shall be demonstrated inoperable, by verifying that the motor circuit breakers have been removed from their electrical power supply circuits, at least once per 12 hours whenever the temperature of one or more of the RCS cold legs is less than or equal to 170°F as determined at least once per hour when any RCS cold leg temperature is between 170°F and 200°F.

* The provisions of Specification 4.0.6 are applicable.

REFUELING CANAL DRAINS

LIMITING CONDITION FOR OPERATION

3.6.5.8 The refueling canal drains shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With a refueling canal drain inoperable, restore the drain to OPERABLE status prior to increasing the Reactor Coolant System temperature above 200°F.

SURVEILLANCE REQUIREMENTS

4.6.5.8 Each refueling canal drain shall be demonstrated OPERABLE prior to increasing the Reactor Coolant System temperature above 200°F after each partial or complete filling of the canal with water by verifying that the blind flange is removed from the drain line and that the drain is not obstructed by debris.

CONTAINMENT SYSTEMS

DIVIDER BARRIER SEAL

LIMITING CONDITION FOR OPERATION

3.6.5.9 The divider barrier seal shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With the divider barrier seal inoperable, restore the seal to OPERABLE status prior to increasing the Reactor Coolant System temperature above 200°F.

SURVEILLANCE REQUIREMENTS

4.6.5.9 The divider barrier seal shall be determined OPERABLE at least once per 18 months during shutdown by: *

a. Removing two divider barrier seal test coupons and verifying that the physical properties of the test coupons are within the acceptable range of values shown in Table 3.6-2.

b. Visually inspecting at least 95 percent of the seal's entire length and:

1. Verifying that the seal and seal mounting bolts are properly installed, and

2. Verifying that the seal material shows no visual evidence of deterioration due to holes, ruptures, chemical attack, abrasion, radiation damage, or changes in physical appearances.

* The provisions of Specification 4.0.6 are applicable.

SURVEILLANCE REQUIREMENTS (Continued)

3. Verifying that each non-automatic valve in the flow path that is not locked, sealed, or otherwise secured in position is in its correct position.

4. Verifying that each automatic valve in the flow path is in the fully open position whenever the auxiliary feedwater system is placed in automatic control or when above 10% RATED THERMAL POWER. This requirement is not applicable for those portions of the Auxiliary Feedwater System being used intermittently to maintain steam generator level.

b. At least once per 18 months during shutdown by: *

1. Verifying that each automatic valve in the flow path actuates to its correct position upon receipt of the appropriate engineered safety features actuation test signal required by Specification 3/4.3.2.

2. Verifying that each auxiliary feedwater pump starts as designed automatically upon receipt of the appropriate engineered safety features actuation test signal required by Specification 3/4.3.2.

* The provisions of Specification 4.0.6 are applicable.

PLANT SYSTEMS

3/4.7.4 ESSENTIAL SERVICE WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.4.1 At least two independent essential service water loops shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With only one service water loop OPERABLE, restore at least two loops to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.7.4.1 At least two essential service water loops shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) servicing safety related equipment that is not locked, sealed, or otherwise secured in position, is in its correct position.

b. At least once per 18 months during shutdown, by verifying that each automatic valve servicing safety related equipment actuates to its correct position on a Safety Injection test signal.*

c. At least once per 31 days on a STAGGERED TEST BASIS, by verifying that each pump develops at least 93% of the discharge pressure for the applicable flow rate as determined from the manufacturer's Pump Performance Curve.

* The provisions of Specification 4.0.6 are applicable.

3/4.7.8 SNUBBERS

LIMITING CONDITION FOR OPERATION

3.7.8 All snubbers listed in Table 3.7-4 shall be OPERABLE

APPLICABILITY: MODES 1, 2, 3 and 4. (MODES 5 and 6 for snubbers located on systems required OPERABLE in those MODES).

ACTION:

With one or more snubbers inoperable, within 72 hours replace or restore the inoperable snubber(s) to OPERABLE status and perform an engineering evaluation per Specification 4.7.8.C on the supported component or declare the supported system inoperable and follow the appropriate ACTION statement for that system.

SURVEILLANCE REQUIREMENTS

4.7.8 Each snubber shall be demonstrated OPERABLE by performance of the following augmented inservice inspection program and the requirements of Specification 4.0.5. **

a. Visual Inspections

The first inservice visual inspection of snubbers shall be performed after four months but within 10 months of commencing POWER OPERATION and shall include all snubbers listed in Table 3.7-4. If less than two (2) snubbers are found inoperable during the first inservice visual inspection, the second inservice visual inspection shall be performed 12 months ± 25% from the date of the first inspection. Otherwise, subsequent visual inspections shall be performed in accordance with the following schedule:

No. Inoperable Snubbers per Inspection Period	Subsequent Visual Inspection Period*#
0	18 months ± 25%
1	12 months ± 25%
2	6 months ± 25%
3,4	124 days ± 25%
5,6,7	62 days ± 25%
8 or more	31 days ± 25%

The snubbers may be categorized into two groups: Those accessible and those inaccessible during reactor operation. Each group may be inspected independently in accordance with the above schedule.

*The inspection interval shall not be lengthened more than one step at a time.

#The provisions of Specification 4.0.2 are not applicable.

**The provisions of Specification 4.0.6 are applicable.

SURVEILLANCE REQUIREMENTS (Continued)

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.

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.

* The provisions of Specification 4.0.6 are applicable.

SURVEILLANCE REQUIREMENTS (Continued)

2. 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 ≥ 1750 kw, and operates for ≥ 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: *

1. 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 600 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 sequencer and the diesel operates for ≥ 5 minutes while its generator is loaded with the emergency loads.

* The provisions of Specification 4.0.6 are applicable.

ELECTRICAL POWER SYSTEMS

SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.8.1.2 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

a. One circuit between the offsite transmission network and the onsite Class 1E distribution system, and

b. One diesel generator with:

1. A day tank containing a minimum of 70 gallons of fuel,

2. A fuel storage system containing a minimum of 42,000 gallons of fuel, and

3. A fuel transfer pump.

APPLICABILITY: MODES 5 and 6.

ACTION:

With less than the above minimum required A.C. electrical power sources OPERABLE, suspend all operations involving CORE ALTERATIONS or positive reactivity changes until the minimum required A.C. electrical power sources are restored to OPERABLE status.

SURVEILLANCE REQUIREMENTS

4.8.1.2 The above required A.C. electrical power sources shall be demonstrated OPERABLE by the performance of each of the Surveillance Requirements of 4.8.1.1.1 and 4.8.1.1.2 except for requirement 4.8.1.1.2a.6.*

* The provisions of Specification 4.0.6 are applicable.

ELECTRICAL POWER SYSTEMS

3/4.8.2 ONSITE POWER DISTRIBUTION SYSTEMS

A.C. DISTRIBUTION - OPERATING

LIMITING CONDITION FOR OPERATION

3.8.2.1 The following A.C. electrical busses shall be OPERABLE and energized from sources of power other than the diesel generators with tie breakers open between redundant busses:

4160	volt Emergency Bus #	T 11A & T 11B
4160	volt Emergency Bus #	T 11C & T 11D
600	volt Emergency Bus #	11A & 11B
600	volt Emergency Bus #	11C & 11D
120	volt A.C. Vital Bus #	Channel I
120	volt A.C. Vital Bus #	Channel II
120	volt A.C. Vital Bus #	Channel III
120	volt A.C. Vital Bus #	Channel IV

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With less than the above complement of A.C. busses OPERABLE, restore the inoperable bus to OPERABLE status within 8 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.8.2.1 The specified A.C. busses shall be determined OPERABLE and energized from A.C. sources other than the diesel generators with tie breakers open between redundant busses at least once per 7 days by verifying correct breaker alignment and indicated power availability.

SURVEILLANCE REQUIREMENTS (Continued)

2. The pilot cell specific gravity, corrected to 77°F and full electrolyte level (fluid at the bottom of the maximum level indication mark), is ≥ 1.200,

3. The pilot cell voltage is ≥ 2.10 volts, and

4. The overall battery voltage is ≥ 250 volts.

b. At least once per 92 days by verifying that:

1. The voltage of each connected cell is ≥ 2.10 volts under float charge and has not decreased more than 0.05 volts from the value observed during the original acceptance test, and

2. The specific gravity, corrected to 77°F and full electrolyte level (fluid at the bottom of the maximum level indication mark), of each connected cell is ≥ 1.200 and has not decreased more than 0.03 from the value observed during the previous test, and

3. The electrolyte level of each connected cell is between the top of the minimum level indication mark and the bottom of the maximum level indication mark.

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

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

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

3. The battery charger will supply at least 10 amperes at ≥ 250 volts for at least 4 hours.

d. At least once per 18 months, during shutdown (MODES 5 or 6), by verifying that the battery capacity is adequate to supply and maintain in OPERABLE status the emergency loads for the times specified in Table 4.8-2 with the battery charger disconnected. The battery terminal voltage shall be maintained ≥ 210 volts throughout the battery service test.*

e. At least once per 60 months, during shutdown (MODES 5 or 6), by verifying that the battery capacity is at least 80% of the manufacturer's rating when subjected to a performance discharge test. This performance discharge test shall be performed in place of the battery service test.

* The provisions of Specification 4.0.6 are applicable.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 100 TO FACILITY OPERATING LICENSE NO. DPR-58

INDIANA AND MICHIGAN ELECTRIC COMPANY

DONALD C. COOK NUCLEAR PLANT, UNIT 1

DOCKET NO. 50-315

INTRODUCTION

By letter dated October 1, 1986, the Indiana and Michigan Electric Company, the licensee, submitted a proposed amendment to the Unit 1 Technical Specifications for an extension of certain surveillance requirements which could only be done with the plant shutdown. By letter dated October 31, 1986, the licensee submitted a second proposed amendment for an extension of certain surveillance requirements and for much of the same equipment, however, these surveillances could be done at power but with new and untried procedures. All of the surveillances have been done in the past with the unit shut down.

The reason for the requests is that the refueling cycle has been lengthened by a self-imposed limit of operation at 90% rated thermal power. This limit was implemented as a precautionary measure following discovery of abnormal degradation of steam generator tubes in D.C. Cook Unit 2. The licensee has requested that all the specified surveillances be extended until the next scheduled refueling outage currently scheduled for about May 1987.

EVALUATION

A. Extension Requests From October 1, 1986 Letter-Surveillances Require Shutdown

The staffs review is presented following item numbers from Attachment 1 to the licensee's October 1, 1986 letter.

1. Items 1, 2, 3, 5, 6 8, 11, 13, and a typographical correction.

Licensee requests permission to correct a typographical error on page 3/4 0.3. The phrase "Semiannually or every 5 months" is to be changed to "semiannually or every 6 months." Staff finds this change request uncontroversial and, therefore, acceptable.

Licensee requests permission to delay the Table 4.3.1 channel calibration for functional unit 11, currently scheduled for December 23, 1986, and for Units 14 and 15, scheduled for December 20, 1986. Since required 12 hour channel checks and monthly functional tests will provide a periodic indication of the functional units' operability, the staff finds the requested, one-time extension to be acceptable.

Licensee requests permission to delay the Table 4.3-2 required channel calibration of ESF functional units 5a, 6a and 7a. Each of these calibration efforts are currently scheduled to take place December 20, 1986. Each of the functional units is required to undergo a channel check once every 12 hours and a functional test once each month. Staff's view is that any potential adverse operating impact which could result from licensee's proposed extension will be surfaced during the required periodic surveillances and therefore, finds the one-time extension acceptable.

Licensee has requested a delay in the surveillance requirement for Table 4.3-7 instrument no. 5 and instrument no. 12. Each of these instruments is required to undergo monthly channel checks which will likely surface any failure which could occur during the extended surveillance interval. Therefore, the staff finds the licensee's requested, one-time extension, acceptable.

Licensee requests a delay in the 18 month testing interval for the Reactor Trip System and Engineered Safety Feature System response times (T/S Section 4.3.1.1.3 and 4.3.2.1.3, respectively). Since the requested delay is short, approximately 3 months beyond that which is allowed under T/S 4.02, and given the number of periodic surveillance requirements for the components of each of these systems, the staff finds the licensee's request for a one-time extension acceptable.

Licensee requests a 4 month surveillance extension of the channel calibration required for containment sump level instrumentation and a 3 month extension of the channel calibration requirement for the flow monitoring instrumentation (T/S Section 4.4.6.1.b). Since the requested extension is only slightly longer than that which is allowed under T/S Section 4.02 and since other methods are available for detecting primary coolant leakage, the staff finds this request acceptable.

Licensee requests a 4 month delay in the 18 month requirement which calls for the verification of the automatic isolation and interlock action of the Residual Heat Removal System from the Reactor Coolant System (T/S Sections 4.5.2.d.1 and 4.5.3.1). To meet the single failure criterion, all active component of the RHR System, including isolation valves, are duplicated. Therefore, any undetected failure which might result from the lengthening of the surveillance interval will likely be offset by this built in redundancy. Also, the general fail-safe design of the systems offers an additional level of protection. Therefore, the staff finds the licensee's request for one-time surveillance extension acceptable.

Licensee requests a 3 month extension of the required 18 month surveillance interval for each diesel generator in Modes 1, 2, 3 and 4 (T/S Section 4.8.1.1.2.b) and in Modes 4 and 5 (T/S Section 4.8.1.2). The request exceeds the allowable margin identified in T/S Section 4.02 by only three months. Furthermore, the required 31 day surveillance tests are likely to detect any failure which may occur during the extended interval.

TS 4.8.1.1.2.b. involves testing automatic valves in the essential services water (ESW) and by the TSs, the surveillance must be performed during shutdown. Because some of the ESW valves involve cooling water to the diesel generator, this testing is done in conjunction with the diesel generator testing of TS 4.8.1.1.2.b. TS 4.4.11.3 requires testing of the emergency power supply for the PORVs and their associated block valves and is also performed during shutdown in conjunction with TS 4.8.1.1.2.b as suggested by TS 4.4.11.3 because it involves cycling the PORVs and block valves.

The extension for both the ESW valves and the PORV emergency power supply is acceptable based on previous test results which do not indicate any reason to suspect the valves and circuitry would not pass the required surveillance. Also the 31 day surveillance of the diesel generators demonstrates operability of those ESW valves (remote manual operation) associated with the diesel generators and the pressurizer code safety valves provide overpressure protection for the primary system in the event the PORVs do not function.

Based on the above the staff concludes that the requested extension of the required 18 month surveillance interval for the diesel generator, ESW valves and PORV emergency power supply is acceptable.

Licensee requests an extension of the 18 month surveillance requirement for the N-train battery service test (T/S Section 4.8.2.5.2.d)for a period of approximately four months beyond that which is allowed under T/S Section 4.02. Any failure which may result from the lengthened interval will likely be identified during the weekly service checks required for each battery bank. Therefore, the staff finds licensee's one-time request acceptable.

2. Item 4 Snubber Tests

The surveillance requirements of TS 4.7.8 state that at least once per 18 months snubber functional testing is to be performed on a 10% sample of the total of each type of snubber in use in the plant. The surveillance due date is December 29, 1986, for the steam generator snubbers and February 17, 1987, for the small bore snubbers. The licensee is requesting an extension of the snubber testing surveillance deadline to the refueling outage currently scheduled to begin on May 23, 1987. The extension is being requested because both the steam generator snubbers and most of the remaining snubbers in the 10% sample are inaccessible during power operation, and TS 4.7.8.c requires testing to be performed with the reactor shut down.

In 1978, numerous small-bore snubbers manufactured by the Grinnell Co. were found to lock up at a rate higher than design specifications recommended due to the factory settings of lock-up and bleed rates. All the Grinnell small-bore snubbers were tested in 1978 and settings were adjusted as necessary. Since the 1978 test results, all Grinnell snubbers tested have been found operable. The requirement to test the large-bore steam generator snubbers was established in 1983 in conjunction with the new Technical Specifications. Six of the sixteen snubbers have been tested, and of the six tested, one failed to lock up in compression. The problem was not generic, and the snubber passed the subsequent retest in 1985.

Visual inspections of snubbers are not required until after the beginning of the next refueling outage. However, the surveillance history of visual inspections gives further support for the licensee's request. Visual inspections are performed on small-bore snubbers at least once per refueling period. Of the visual inspections that have been performed on the accessible and inaccessible snubbers, unsatisfactory findings have occurred in less than 1% of the total cumulative population. Visual inspections have been performed on the steam generator snubbers since 1975. These inspections are performed at least once per refueling cycle. No problem or potential problem has been revealed by these inspections.

On the basis of the history of D. C. Cook Unit 1 snubber testing and inspection results, there is high confidence in the operability of the D. C. Cook 1 snubbers and operation for approximately five additional months past the due date for snubber functional testing will not result in a significant decrease in plant safety. Therefore, plant shutdown to perform snubber functional testing at the due dates indicated above would be unwarranted and the licensee's requested extension is acceptable.

The licensee's submittal requested a one time extension in the snubber functional testing surveillance requirements. However, since the licensee intends to continue to operate at reduced power with extended refueling cycles, the licensee should address the long-term aspects of this problem. The licensee should perform additional snubber testing to achieve the same level of confidence of snubber operability as provided by the current TS. The snubber functional testing surveillance requirements should be revised by the upcoming refueling outage to increase the snubber testing sample size at least in proportion to the increase in the length of the refueling cycle beyond 18 months.

3. Item 5 - Containment Sump Instrumentation

The licensee's proposal to defer surveillance to the May 1987 refueling outage will delay the channel calibration of the containment sump level and flow monitoring instrumentation required by Technical Specification (TS) 4.4.6.1.b. The system is designed to provide early indication of RCS pressure boundary degradation. There are, however, a number of backup means available, including humidity monitors, containment atmosphere gaseous and particulate radioactivity monitoring channels, the containment water level instrumentation, and reactor coolant system inventory balances required by TS 4.4.6.2.1 every 72 hours. Furthermore, the present TS allows one of three specified leak detection systems to be inoperable for up to thirty days.

Based on the number of backup means available for leak detection, plus the fact that if calibration changes were to incapacitate the containment sump instrumentation it would be readily apparent as a large increase or decrease in leak rate indication, the staff concludes that the delay in calibration is acceptable.

4. Item 7 - Divider Barrier Seal and Inspection

The licensee's proposal to defer surveillance to the May 1987 refueling outage will delay the testing and inspection of the divider barrier seal as required TS 4.6.5.9. The divider barrier seal serves to limit ice condenser bypass leakage from the lower to the upper compartment in the event of an accident. The seal is a passive component that is not accessible during power operation.

The licensee has reviewed recent surveillance test results which indicate that the seal is in excellent condition. Based on the passive nature of the seal, and given the history of seal performance, the staff concludes that a delay of the test and inspection until the next refueling outage will not significantly impact the ability of the seal to perform its safety function, and is, therefore, acceptable.

5. Item 9 - Containment Sump Inspection

The licensee's proposal to defer surveillance to the May 1987 refueling outage will delay the visual inspection of the containment sump and its associated subsystem subsystem inlets, required by TS 4.5.2.d.2 and TS 4.5.3.1 which references TS 4.5.2.

The licensee's records indicate that no evidence of structural distress, or corrosion of sump components, has been detected to date and, therefore, the licensee does not expect that any will be found prior to the next inspection. Furthermore, visual inspections of the sump areas were made during the required containment tours after the May and July 1986 plant trips and no debris was discovered. Loose articles that may have the potential to become sump debris are kept fastened down inside containment, and plant procedures require housekeeping inspection whenever the containment is entered during power operation.

Based on the above, the staff has reasonable assurance that the sump will be free of debris which could clog it, and that the sump's components will be sufficiently free of corrosion and structural distress until the next scheduled refueling outage. The staff, therefore, concludes that the delay of inspection of the containment sump until the next refueling outage is acceptable.

6. Item 10 - Reactor Coolant Pump Spray/Sprinkler System

The licensee's proposal to defer surveillance to the May 1987 refueling outage will delay the reactor coolant pump (RCP) spray/sprinkler system testing and inspection required by TS 4.7.9.2.b. Since the RCP spray/sprinkler system was installed, it has not failed a surveillance test from the standpoint of being incapable of performing its intended safety function which is fire suppression. There is also manual fire fighting capability in the unlikely event of spray/-sprinkler system failure. Based on the past surveillance history of the installed system and the manual backup fire fighting capability, the staff concludes that the proposed change to delay the surveillance to the next refueling outage is acceptable.

7. Item 12 - Auxiliary Feedwater Pump Testing

The licensee's proposal to defer surveillance to the May 1987 refueling outage will delay certain auxiliary feedwater pump (AFW) tests required by TS 4.7.1.-2.b. TS 4.7.1.2.b requires testing to demonstrate that the motor and turbine driven AFW pumps start and that the associated automatic valves actuate to their correct position upon receipt of certain signals. Although the tests, per se, will be delayed, in practice the essential portions of the TS (i.e., startup of the pumps when required and movement of the valves to their correct positions) have occured several times via actual signals. Prior testing experience has also indicated no significant problems. Due to the long dry out time of Westinghouse steam generators, there is a good likelihood of manual initiation of the AFW system if it failed to automatically initiate. Also, the pumps themselves are manually tested monthly.

Based on the successful, actual automatic AFW initiations that have occured (most recently July 1986), the excellent surveillance history for the equipment and the capability for manual initiation of the AFW system, the staff concludes that the proposed delay in testing to the next refueling outage is acceptable.

Each of the above referenced specifications will include a reference to a new specification (TS 4.0.6) which states that those surveillances which must be performed on or before July 31, 1987, and are designated as 18-month surveillances, may be delayed until the end of the cycle 9-10 refueling outage (currently scheduled to begin during the second quarter of 1987).

Based on a review of each of the items described above, the staff concludes that the proposed changes are acceptable.

B. Entension Request from October 31, 1986 Letter--Surveillance Untried at Power

The licensee's letter dated October 1, 1986 as evaluated above under A, includes some of the same equipment as evaluated here but differs in that the requirements under A can only be done at shutdown and those surveillances under B could be done at power but with new, untried procedures. The use of extensive new procedures is likely to cause an unwarranted reactor trip or transient. This would increase the risk to the public which is not considered offset by the benefits of requiring the surveillance during the short period of the requested extension. In addition, the staff's safety evaluation conducted under A above concluded that all temporary requests for extension were acceptable. Therefore, this review under B will consider only those items which are unique to the October 31st letter.

1. Licensee requests an extension of surveillance intervals for Table 4.3-1 channel calibration of instruments designated as functional units 7,8,9, and 10 (interval extensions for unit nos. 11, 14 and 15 were reviewed under A above). The requested extensions range from one to about five months longer than the maximum extension allowed under TS Section 4.02. Since 12 hour channel checks and monthly functional tests are required to be performed for each functional unit, periodic indication of each unit's operability is available. The staff's view is that significant calibration problems which occur during the one-time extension of the surveillance interval will likely surface during the units' periodic testing requirements. Therefore, the staff finds the licensee's request acceptable.

2. Licensee requests permission to delay, for periods ranging from one to five months longer than the maximum extension allowed under TS Section 4.02, the Table 4.3-2 required channel calibration of functional units 1.c, 1.d, 1.e, 1.f, 2.c, 3.b.3, 4.c, 4.d, 6.b, 8.a, and 8.b (Units 5a, 6a, and 7a were reviewed and approved under A above). Since 12 hour channel checks and monthly functional checks are required to be performed for each functional unit, periodic indication of each unit's operability is available. The staff's view is that any significant calibration problems which occur during licensee's proposed one-time extensions will likely be detected during the required, periodic surveillances. Therefore, the staff finds the extension request acceptable.

3. Licensee requests a four month delay in the testing of the P-11 and P-12 interlocks. The extension is requested because the total interlock function is tested during the delta T/Tavg and pressurizer pressure channel calibrations for which surveillance interval extensions were approved above. Since the P-11 and P-12 interlocks undergo functional surveillance during the monthly automatic actuation logic test, the staff's view is that any operating irregularity which results from this one-time extension, will likely be detected during these monthly tests. Therefore, the staff finds the licensee's extension requests acceptable.

4. Licensee requests an extension of the surveillance interval channel calibration requirement for Table 4.3-6 functional units 2, 3, and 5. Extensions of 5 months are requested for units 5 and 3 and a one month extension is requested for unit no. 2. Each functional unit is required to undergo monthly channel checks. These routine checks should provide sufficient indication of any significant calibration problems with the functional units during the extended interval to allow appropriate corrective action. Therefore, the staff finds licensee's request for a one-time extension to be acceptable.

5. Licensee has requested a delay of approximately five months in the surveillance requirements for Table 4.3-7 instruments 1, 6, and 7 (a surveillance extension was granted for channel calibration of instrument no. 5 under A above). Each of these instruments is required to undergo monthly channel checks which will likely indicate any significant calibration problems resulting during the one-time surveillance extension. Therefore, the staff finds the licensee's requested, one-time extension acceptable.

6. Licensee requests a one month delay in the channel calibration of the power operated relief valve (PORV), TS Section 4.4.11.1.b. Since the requested extension is relatively short and since the PORV's are required to undergo channel functional testing at least once per 31 days, it is unlikely that any adverse impact on safety will result from this one-time interval extension. Therefore, the staff finds the licensee's request acceptable.

As in section A above each of the above referenced specifications will include a reference to a new specification (TS 4.0.6) which states that those surveillances which must be performed on or before July 31, 1987, and are designated as 18-month surveillances, may be delayed until the end of the cycle 9-10 refueling outage (currently scheduled to begin during the second quarter of 1987).

Based on a review of each of the items described above, the staff concludes that the proposed changes are acceptable.

Technical Specifications

The licensee has proposed changes to the Technical Specifications to cover surveillances which occur over a period of time. The first change must be in effect for the first test which would have occurred on December 20, 1986. Since the time of other tests vary after that date, the actual revisions by the licensee to Technical Specifications may also vary. The amendment will be conditioned, however, so that all revisions to the Technical Specifications will be in place within 45 days of receipt of this amendment.

ENVIRONMENTAL CONSIDERATION

This amendment involves a change in the installation or use of the facilities' components located within the restricted areas as defined in 10 CFR 20. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR Sec 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

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

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