

April 7, 1987

Docket Nos.: 50-315
and 50-316

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

Dear Mr. Dolan:

The Commission has issued the enclosed Amendment No. 104 to Facility Operating License No. DPR-58 and Amendment No. 91 to Facility Operating License No. DPR-74 for the Donald C. Cook Nuclear Plant, Unit Nos. 1 and 2. The amendments consist of changes to the Technical Specifications in response to your application transmitted by letter dated August 19, 1986.

These amendments revise the Technical Specifications to correct errors related to the snubber requirements and other editorial errors.

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

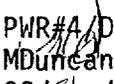
Enclosures:

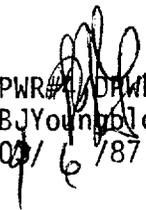
1. Amendment No. 104 to DPR-58
2. Amendment No. 91 to DPR-74
3. Safety Evaluation

cc: w/enclosures

See next page


PWR#4/DPWR-A
DWigginton/rad
03/16/87


PWR#4/DPWR-A
MDuncanson
03/11/87


PWR#4/DPWR-A
BJYoungblood
03/16/87

8704150158 870407
PDR ADOCK 05000315
P PDR

Mr. John Dolan
Indiana and Michigan Electric Company

Donald C. Cook Nuclear Plant

cc:
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Special Assistant to the Governor
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Monitoring Section Office
Division of Radiological Health
Department of Public Health
3500 N. Logan Street
Post Office Box 30035
Lansing, Michigan 48909

Dated: April 7, 1987

AMENDMENT NO. 104 TO FACILITY OPERATING LICENSE NO. DPR-58 - DONALD C. COOK, UNIT 1
AMENDMENT NO. 91 TO FACILITY OPERATING LICENSE NO. DPR-74 - DONALD C. COOK, UNIT 2

DISTRIBUTION: w/enclosures

Docket File

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Local PDR

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D. Wigginton

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ACRS (10)

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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. 104
License No. DPR-58

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Indiana and Michigan Electric Company (the licensee) dated August 19, 1986, 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:

8704150167 870407
PDR ADOCK 05000315
P PDR

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No.104, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

- 3. The Technical Specification changes are effective 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

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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: April 7, 1987

* SEE PREVIOUS CONCURRENCE

PWR#4/DPWR-A
DWigginton/rad
03/1/87

PWR#4/DPWR-A
MDuncan
03/31/87

W3
6
FOB/DPWR-A
VBenaroya
03/30/87

EB/DPWR-A
*RBallard
11/06/86

OGC-Bethesda
M. Kalman
03/01/87

PWR#4/DPWR-A
BJYoung/Lood
03/16/87



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

INDIANA AND MICHIGAN ELECTRIC COMPANY

DOCKET NO. 50-316

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 91
License No. DPR-74

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Indiana and Michigan Electric Company (the licensee) dated August 19, 1986, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-74 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 91, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

- 3. The Technical Specification changes are effective 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

151

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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: April 7, 1987

WV
PWR#4/DPWR-A
DWigginton/rad
03/1/87

MD
PWR#4/DPWR-A
MDuncan
03/3/87

VB
FOB/DPWR-A
VBenaroya
03/ /87

EB
EB/DPWR-
RBallard
11/06/86
3/27/87

OGC-Bethesda
M. J. Kelman
03/01/87

BY
PWR#4/DPWR-A
BYoungblood
03/1/87

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 104 FACILITY OPERATING LICENSE NO. DPR-58

AMENDMENT NO. 91 FACILITY OPERATING LICENSE NO. DPR-74

DOCKET NOS. 50-315 AND 50-316

Revise Appendix A as follows:

Remove Pages

Insert Pages

Unit 1

3/4 7-28
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3/4 7-30
3/4 7-36
3/4 7-38
B 3/4 7-6

3/4 7-28
3/4 7-29
3/4 7-30
3/4 7-30
3/4 7-38
B3/4 7-6

Unit 2

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3/4 7-32
B3/4 7-5
B3/4 7-6

PLANT SYSTEMS

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 \pm 25% from the date of the first inspection. Otherwise, subsequent visual inspections shall be performed in accordance with the following schedule:

<u>No. Inoperable Snubbers per inspection Period</u>	<u>Subsequent Visual Inspection Period*#</u>
0	18 months \pm 25
1	12 months \pm 25
2	6 months \pm 25
3,4	124 days \pm 25
5,6,7	62 days \pm 25
8 or more	31 days \pm 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.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

b. Visual Inspection Acceptance Criteria

Visual inspections shall verify (1) that there are no visible indications of damage or impaired OPERABILITY, (2) attachments to the foundation or supporting structure are secure, and (3) in those locations where snubber movement can be manually induced without disconnecting the snubber, that the snubber has freedom of movement and is not frozen up. Snubbers which appear inoperable as a result of visual inspections may be determined OPERABLE for the purpose of establishing the next visual inspection interval, providing that (1) the cause of the rejection is clearly established and remedied for that particular snubber and for other snubbers that may be generically susceptible; and (2) the affected snubber is functionally tested in the as found condition and determined OPERABLE per Specification 4.7.8.d. However, when the fluid port of a hydraulic snubber is found to be uncovered, the snubber shall be determined inoperable and cannot be determined OPERABLE via functional testing for the purpose of establishing the next visual inspection interval. All snubbers connected to an inoperable common hydraulic fluid reservoir shall be counted as inoperable snubbers.

c. Functional Tests

At least once per 18 months during shutdown, a representative sample (10%) of the total of each type of snubber in use in the plant shall be functionally tested either in place or in a bench test. For each snubber that does not meet the functional test acceptance criteria of Specification 4.7.8.d an additional 10% of that type of Snubber shall be functionally tested.

The representative sample selected for functional testing shall include the various configurations, operating environments and the range of size and capacity of snubbers. At least 25% of the snubbers in the representative sample shall include snubbers from the following three categories:

1. The first snubber away from each reactor vessel nozzle
2. Snubbers within 5 feet of heavy equipment (valve, pump, turbine, motor, etc.)
3. Snubbers within 10 feet of the discharge from a safety relief valve

Snubbers identified in Table 3.7-4 as "Especially Difficult to Remove" or in "High Radiation Zones During Shutdown" shall also be included in the representative sample.*

*Permanent or other exemptions from functional testing for individual snubbers in these categories may be granted by the Commission only if a justifiable basis for exemption is presented and/or snubber life destructive testing was performed to qualify snubber operability for all design conditions at either the completion of their fabrication or at a subsequent date.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

In addition to the regular sample, snubbers which failed the previous functional test shall be retested during the next test period. If a spare snubber has been installed in place of a failed snubber, then both the failed snubber (if it is repaired and installed in another position) and the spare snubber shall be retested. Test results of these snubbers may not be included for the re-sampling.

If any snubber selected for functional testing either fails to lockup or fails to move, i.e., frozen in place, the cause will be evaluated and if caused by manufacturer or design deficiency all snubbers of the same design subject to the same defect shall be functionally tested. This testing requirement shall be independent of the requirements stated above the snubbers not meeting the functional test acceptance criteria.

For the snubber(s) found inoperable, an engineering evaluation shall be performed on the components which are supported by the snubber(s). The purpose of this engineering evaluation shall be to determine if the components supported by the snubber(s) were adversely affected by the inoperability of the snubber(s) in order to ensure that the supported component remains capable of meeting the designed service.

d. Hydraulic Snubbers Functional Test Acceptance Criteria

The hydraulic snubber functional test shall verify that:

1. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.
2. Snubber bleed, or release rate, where required, is within the specified range in compression or tension. For snubbers specifically required to not displace under continuous load, the ability of the snubber to withstand load without displacement shall be verified.

e. Snubber Service Life Monitoring

A record of the service life of each snubber, the date at which the designated service life commences and the installation and maintenance records on which the designated service life is based shall be maintained as required by Specification 6.10.2.

Concurrent with the first inservice visual inspection and at least once per 18 months thereafter, the installation and maintenance records for each snubber listed in Table 3.7-4 shall be reviewed to verify that the indicated service life has not been exceeded or will not be exceeded prior to the next scheduled snubber service life review. If the indicated service life will be exceeded prior to the next scheduled snubber service life review, the snubber service life shall be reevaluated or the snubber shall be replaced or reconditioned so as to extend its service life beyond the date of the next scheduled service life review. This reevaluation, replacement or reconditioning shall be indicated in the records.

D. C. COOK-UNIT 1

3/4 7-36

Amendment No. 104

TABLE 3.7-4

SAFETY RELATED HYDRAULIC SNUBBERS*

<u>SNUBBER NO.</u>	<u>HANGER MARK NO.</u>	<u>SYSTEM SNUBBER INSTALLED ON. LOCATION AND ELEVATION</u>	<u>ACCESSIBLE OR INACCESSIBLE</u>	<u>HIGH RADIATION ZONE</u>	<u>ESPECIALLY DIFFICULT TO REMOVE</u>
42	1-MSS-4	Main Steam Az 165° Elev. 635' Between Stm. Gen. No. 2 and No. 3	<u>I</u>	<u>NO</u>	<u>NO</u>
43	1-MSS-5	Main Steam Az 191° Elev. 635' Between Stm. Gen. No.2 and No.3	<u>I</u>	<u>NO</u>	<u>NO</u>
44	1-MSS-6	Main Steam Az 184° Elev. 639'-1 1/4" Between Stm. Gen. No. 2 and No. 3	<u>I</u>	<u>NO</u>	<u>NO</u>
45	1-MSS-7	Main Steam Az 349° Elev. 635' Behind Stm. Gen. No.1 and No.4	<u>I</u>	<u>NO</u>	<u>NO</u>
46	1-MSS-8	Main Steam Az 356° Elev. 639'-1 1/4" Between Stm. Gen. No. 1 and No. 4	<u>I</u>	<u>NO</u>	<u>NO</u>
47	1-GCCW-S278	Component Cooling Water Elev. 609' In CCW Pump Area	<u>A</u>	<u>NO</u>	<u>NO</u>
48	1-GCCW-S309	Component Cooling Water Elev. 597'-1 5/8" In Passageway Near Sampling Room Aux. Bldg.	<u>A</u>	<u>NO</u>	<u>YES</u>
49	1-GCCW-S837	Component Cooling Water Elev. 621'-0" In CCW Pump Area	<u>A</u>	<u>NO</u>	<u>NO</u>
50	1-GCCW-S838	Component Cooling Water Elev. 621'-0" In CCW Pump Area	<u>A</u>	<u>NO</u>	<u>NO</u>
51	1-GCCW-S839	Component Cooling Water Elev. 621'-0" In CCW Pump Area	<u>A</u>	<u>NO</u>	<u>NO</u>

TABLE 3.7-4

SAFETY RELATED HYDRAULIC SNUBBERS*

<u>SNUBBER NO.</u>	<u>HANGER MARK NO.</u>	<u>SYSTEM SNUBBER INSTALLED ON. LOCATION AND ELEVATION</u>	<u>ACCESSIBLE OR INACCESSIBLE</u>	<u>HIGH RADIATION ZONE</u>	<u>ESPECIALLY DIFFICULT TO REMOVE</u>
62	1-GRH-S47	Residual Heat Removal Elev. 581' In 1-W RHR Pump Room	A	NO	NO
63	1-GRH-S48	Residual Heat Removal Elev. 580'-6" In 1-W RHR Pump Room	A	NO	NO
64	1-GDG-S13	1-AB Emerg. Diesel Exhaust Elev. 596'-7 3/8"	A	NO	NO
65	1-GDG-S14	1-AB Emerg. Diesel Exhaust Elev. 603'-6"	A	NO	NO
66	1-GSI-S103	Safety Injection Elev. 573' In 1-E RHR Pump Room	A	NO	YES
67	1-GSI-S128	Safety Injection Elev. 573' In 1-W RHR Pump Room	A	NO	YES
68	1-GSI-S575	Safety Injection Elev. 598'-9 3/8" Az 66° In Annulus	A	NO	NO
69	1-GSI-S657	Safety Injection Az 185° Elev. 610'-0" In Annulus	A	NO	NO
70	1-GSI-S707	Safety Injection Az 228° Elev. 608'-4 7/8" Behind RC Pump No. 3	I	NO	NO

D.C. COOK-UNIT 1

3/4 7-38

Amendment No. 104

BASES (Continued)

3/4.7.8 HYDRAULIC SNUBBERS

All snubbers are required OPERABLE to ensure that the structural integrity of the reactor coolant system and all other safety related systems is maintained during and following a seismic or other event initiating dynamic loads. Snubbers excluded from this inspection program are those installed on nonsafety-related systems and then only if their failure or failure of the system on which they are installed, would have no adverse effect on any safety-related system.

The visual inspection frequency is based upon maintaining a constant level of snubber protection to systems. Therefore, the required inspection interval varies inversely with the observed snubber failures and is determined by the number of inoperable snubbers found during an inspection. Inspections performed before that interval has elapsed may be used as a new reference point to determine the next inspection. However, the results of such early inspections performed before the original required time interval has elapsed (nominal time less 25%) may not be used to lengthen the required inspection interval. Any inspection whose results required a shorter inspection interval will override the previous schedule.

When the cause of the rejection of a snubber is clearly established and remedied for that snubber and for any other snubbers that may be generically susceptible, and verified by inservice functional testing, that snubber may be exempted from being counted as inoperable. Generically susceptible snubbers are those which are of a specific make or model and have the same design features directly related to rejection of the snubber by visual inspection, or are similarly located or exposed to the same environmental conditions such as temperature, radiation, and vibration.

When a snubber is found inoperable, an engineering evaluation is performed, in addition to the determination of the snubber mode of failure, in order to determine if any safety-related component or system has been adversely affected by the inoperability of the snubber. The engineering evaluation shall determine whether or not the snubber mode of failure has imparted a significant effect or degradation on the supported component or system.

To provide assurance of snubber functional reliability, a representative sample of the installed snubbers will be functionally tested during plant shutdowns at 18 month intervals. Observed failures of these sample snubbers shall require functional testing of additional units.

The service life of a snubber is evaluated via manufacturer's input and information through consideration of the snubber service conditions and associated installation and maintenance records (newly installed snubber, seal replaced, spring replaced, in high radiation area, in high temperature area, etc...). The requirement to monitor the snubber service life is included to ensure that the snubbers periodically undergo a performance evaluation in view of their age and operating conditions. These records will provide statistical bases for future consideration of snubber service life. The requirements for the maintenance of records and the snubber service life review are not intended to affect plant operation.

PLANT SYSTEMS

3/4.7.7 SNUBBERS

LIMITING CONDITION FOR OPERATION

3.7.7.1 All snubbers listed in Table 3.7-9 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 4.7.7.1.c on the supported component or declare the supported system inoperable and follow the appropriate ACTION statement for that system.

SURVEILLANCE REQUIREMENTS

4.7.7.1 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 Inspection

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 3.7-9. 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 \pm 25% from the date of the first inspection. Otherwise, subsequent visual inspections shall be performed in accordance with the following schedule:

<u>No. Inoperable Snubbers per Inspection Period</u>	<u>Subsequent Visual Inspection Period*#</u>
0	18 months \pm 25
1	12 months \pm 25
2	6 months \pm 25
3,4	124 days \pm 25
5,6,7	62 days \pm 25
8 or more	31 days \pm 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 4.0.6 are applicable.

#The provisions of Specification 4.0.2 are not applicable.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

b. Visual Inspection Acceptance Criteria

Visual inspections shall verify (1) that there are no visible indications of damage or impaired OPERABILITY, (2) attachments to the foundation or supporting structure are secure, and (3) in those locations where snubber movement can be manually induced without disconnecting the snubber, that the snubber has freedom of movement and is not frozen up. Snubbers which appear inoperable as a result of visual inspections may be determined OPERABLE for the purpose of establishing the next visual inspection interval, providing that (1) the cause of the rejection is clearly established and remedied for that particular snubber and for other snubbers that may be generically susceptible; and (2) the affected snubber is functionally tested in the as found condition and determined OPERABLE per Specification 4.7.7.1.d as applicable. However, when the fluid port of a hydraulic snubber is found to be uncovered, the snubber shall be determined inoperable and cannot be determined OPERABLE via functional testing for the purpose of establishing the next visual inspection interval. All snubbers connected to an inoperable common hydraulic fluid reservoir shall be counted as inoperable snubbers.

c. Functional Tests

At least once per 18 months during shutdown, a representative sample (10%) of the total of each type of snubber in use in the plant shall be functionally tested either in place or in a bench test. For each snubber that does not meet the functional test acceptance criteria of Specification 4.7.7.1.d an additional 10% of that type of snubber shall be functionally tested.

The representative sample selected for functional testing shall include the various configurations, operating environments and the range-of-size and capacity of snubbers. At least 25% of the snubbers in the representative sample shall include snubbers from the following three categories:

1. The first snubber away from each reactor vessel nozzle
2. Snubbers within 5 feet of heavy equipment (valve, pump, turbine, motor, etc.)
3. Snubbers within 10 feet of the discharge from a safety relief valve

Snubbers identified in Table 3.7-9 as "Especially Difficult to Remove" or in "High Radiation Zones During Shutdown" shall also be included in the representative sample.*

*Permanent or other exemptions from functional testing for individual snubbers in these categories may be granted by the Commission only if a justifiable basis for exemption is presented and/or snubber life destructive testing was performed to qualify snubber operability for all design conditions at either the completion of their fabrication or at a subsequent date.

TABLE 3.7-9

SAFETY RELATED HYDRAULIC SNUBBERS*

SNUBBER NO.	HANGER MARK NO.	SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION	ACCESSIBLE OR INACCESSIBLE	HIGH RADIATION ZONE	ESPECIALLY DIFFICULT TO REMOVE
36	2-FW-S9	Feedwater Az 194° Elev. 629'-9" near Stm. Gen. No. 3	I	NO	NO
37	2-FW-S10(L)	Feedwater Az 334° Elev. 634'-0" near Stm. Gen. No. 4	I	NO	NO
38	2-FW-S10(U)	Feedwater Az 334° Elev. 636'-7" near Stm. Gen. No. 4	I	NO	NO
39	2-FW-S11	Feedwater Az 330° Elev. 634'-9" near Stm. Gen. No. 4	I	NO	NO
40	2-FW-S12	Feedwater Az 343° Elev. 629'-9" near Stm. Gen. No. 4	I	NO	NO
41	2-GBD-S563(L)	Stm. Gen. Blowdown Az 275° Elev. 607'-11" In Annulus	A	NO	NO
42	2-GBD-S563(U)	Stm. Gen. Blowdown Az 275° Elev. 608'-6" In Annulus	A	NO	NO
43	2-GBD-S569(L)	Stm. Gen. Blowdown Az 275° Elev. 607'-11" In Annulus	A	NO	NO
44	2-GBD-S569(U)	Stm. Gen. Blowdown Az 275° Elev. 608'-6" In Annulus	A	NO	NO
45	2-GBD-S568	Stm. Gen. Blowdown Az 264° Elev. 608'-1" In Annulus	A	NO	NO

D. C. COOK-UNIT 2

3/4 7-27

Amendment No. 91

TABLE 3.7-9

SAFETY RELATED HYDRAULIC SNUBBERS*

SNUBBER NO.	HANGER MARK NO.	SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION	ACCESSIBLE OR INACCESSIBLE	HIGH RADIATION ZONE	ESPECIALLY DIFFICULT TO REMOVE
46	2-GRH-S6	Residual Heat Removal Elev. 581'-6" RHR Pump Room 2E	A	NO	NO
47	2-GRH-S7	Residual Heat Removal Elev. 581'-3" RHR Pump Room 2E	A	NO	NO
48	2-GRH-S24	Residual Heat Removal Elev. 581'-0" RHR Pump Room 2W	A	NO	NO
49	2-GRH-S25	Residual Heat Removal Elev. 580'-6" RHR Pump Room 2W	A	NO	NO
50	2-GCCW-S274	Component Cooling Water Elev. 621'-0" CCW Pump Area	A	NO	NO
51	2-GCCW-S308	Component Cooling Water Elev. 610'- 1/2" CCW Pump Area	A	NO	NO
52	2-GCCW-S317	Component Cooling Water Elev. 621'-0" CCW Pump Area	A	NO	NO
53	2-GCCW-S320	Component Cooling Water Elev. 610'-6" CCW Pump Area	A	NO	NO
54	2-GCCW-S519	Component Cooling Water Az 132° Elev. 623'-4" RC Pump Area	I	NO	NO
55	2-GCCW-S521	Component Cooling Water Az 132° Elev. 624'-9" RC Pump Area	I	NO	NO
56	2-GCCW-S550	Component Cooling Water Az 308° Elev. 619'-3" RC Pump Area	I	NO	NO

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TABLE 3.7-9

SAFETY RELATED HYDRAULIC SNUBBERS*

<u>SNUBBER NO.</u>	<u>HANGER MARK NO.</u>	<u>SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION</u>	<u>ACCESSIBLE OR INACCESSIBLE</u>	<u>HIGH RADIATION ZONE</u>	<u>ESPECIALLY DIFFICULT TO REMOVE</u>
57	2-GCCW-S838	Component Cooling Water Elev. 621'-0" CCW Pump Area	A	NO	NO
58	2-GCCW-S839	Component Cooling Water Elev. 621'-0" CCW Pump Area	A	NO	NO
59	2-GCCW-S840	Component Cooling Water Elev. 620'-0" CCW Pump Area	A	NO	NO
60	2-GCCW-S843	Component Cooling Water Elev. 620'-5" CCW Pump Area	A	NO	NO
61	2-GCCW-S306	Component Cooling Water Elev. 596'-2 3/8" CCW Pump Area	A	NO	NO
62	2-GCS-S634	Chem&Vol. Control Az 299° Elev. 613'-1" Inside crane wall by No. 4 RC Pump	I	NO	NO
63	2-GCS-S637	Chem&Vol. Control Az 72° Elev. 608'-10" In Annulus	A	NO	NO
64	2-GCS-S729	Chem&Vol. Control Az 234° Elev. 617'-0" RC Pump Area	I	NO	NO
65	2-MSS-1	Main Steam Az 8° Elev. 639'-1 1/4" Between Stm. Gen. No. 1 and 4	I	NO	NO
66	2-MSS-2	Main Steam Az 17° Elev. 635'-0" Between Stm. Gen. No. 1 and 4	I	NO	NO

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TABLE 3.7-9

SAFETY RELATED HYDRAULIC SNUBBERS*

<u>SNUBBER NO.</u>	<u>HANGER MARK NO.</u>	<u>SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION</u>	<u>ACCESSIBLE OR INACCESSIBLE</u>	<u>HIGH RADIATION ZONE</u>	<u>ESPECIALLY DIFFICULT TO REMOVE</u>
85	2-GCTS-S116 (E)	CONTAINMENT SPRAY ELEV. 579'-6" 2W CTS Pump Room Suction Pipe	<u>A</u>	<u>NO</u>	<u>NO</u>
86	2-GCTS-S116 (W)	CONTAINMENT SPRAY ELEV. 579'-6" 2W CTS Pump Room Suction Pipe	<u>A</u>	<u>NO</u>	<u>NO</u>
87	N/A	STEAM GENERATOR NO. 1 ELEV. 665'	<u>I</u>	<u>NO</u>	<u>YES</u>
88	N/A	STEAM GENERATOR NO. 1 ELEV. 665'	<u>I</u>	<u>NO</u>	<u>YES</u>
89	N/A	STEAM GENERATOR NO. 1 ELEV. 665'	<u>I</u>	<u>NO</u>	<u>YES</u>
90	N/A	STEAM GENERATOR NO. 1 ELEV. 665'	<u>I</u>	<u>NO</u>	<u>YES</u>
91	N/A	STEAM GENERATOR NO. 2 ELEV. 665'	<u>I</u>	<u>NO</u>	<u>YES</u>
92	N/A	STEAM GENERATOR NO. 2 ELEV. 665'	<u>I</u>	<u>NO</u>	<u>YES</u>
93	N/A	STEAM GENERATOR NO. 2 ELEV. 665'	<u>I</u>	<u>NO</u>	<u>YES</u>
94	N/A	STEAM GENERATOR NO. 2 ELEV. 665'	<u>I</u>	<u>NO</u>	<u>YES</u>
95	N/A	STEAM GENERATOR NO. 3 ELEV. 665'	<u>I</u>	<u>NO</u>	<u>YES</u>

PLANT SYSTEMS

BASES

3/4.7.6 ESF VENTILATION SYSTEM

The OPERABILITY of the ESF ventilation system ensures that radioactive materials leaking from the ECCS equipment within the pump room following a LOCA are filtered prior to reaching the environment. The operation of this system and the resultant effect on offsite dosage calculations was assumed in the accident analyses.

3/4.7.7 HYDRAULIC SNUBBERS

All snubbers are required OPERABLE to ensure that the structural integrity of the reactor coolant system and all other safety related systems is maintained during and following a seismic or other event initiating dynamic loads. Snubbers excluded from this inspection program are those installed on nonsafety-related systems and then only if their failure or failure of the system on which they are installed, would have no adverse effect on any safety-related system.

The visual inspection frequency is based upon maintaining a constant level of snubber protection to systems. Therefore, the required inspection interval varies inversely with the observed snubber failures and is determined by the number of inoperable snubbers found during an inspection. Inspections performed before that interval has elapsed may be used as a new reference point to determine the next inspection. However, the results of such early inspections performed before the original required time interval has elapsed (nominal time less 25%) may not be used to lengthen the required inspection interval. Any inspection whose results required a shorter inspection interval will override the previous schedule.

When the cause of the rejection of a snubber is clearly established and remedied for that snubber and for any other snubbers that may be generically susceptible, and verified by inservice functional testing, that snubber may be exempted from being counted as inoperable. Generically susceptible snubbers are those which are of a specific make or model and have the same design features directly related to rejection of the snubber by visual inspection, or are similarly located or exposed to the same environmental conditions such as temperature, radiation, and vibration.

When a snubber is found inoperable, an engineering evaluation is performed, in addition to the determination of the snubber mode of failure, in order to determine if any safety-related component or system has been adversely affected by the inoperability of the snubber. The engineering evaluation shall determine whether or not the snubber mode of failure has imparted a significant effect or degradation on the supported component or system.

PLANT SYSTEMS

BASES

To provide assurance of snubber functional reliability, a representative sample of the installed snubbers will be functionally tested during plant shutdowns at 18 month intervals. Observed failures of these sample snubbers shall require functional testing of additional units.

The service life of a snubber is evaluated via manufacturer's input and information through consideration of the snubber service conditions and associated installation and maintenance records (newly installed snubber, seal replaced, spring replaced, in high radiation area, in high temperature area, etc...). The requirement to monitor the snubber service life is included to ensure that the snubbers periodically undergo a performance evaluation in view of their age and operating conditions. These records will provide statistical bases for future consideration of snubber service life. The requirements for the maintenance of records and the snubber service life review are not intended to affect plant operation.

3/4.7.8 SEALED SOURCE CONTAMINATION

The limitations on removable contamination for sources requiring leak testing, including alpha emitters, is based on 10 CFR 70.39(c) limits for plutonium. This limitation will ensure that leakage from byproduct, source, and special nuclear material sources will not exceed allowable intake values.

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 occurring 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, CO₂, 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.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 104 TO FACILITY OPERATING LICENSE NO. DPR-58
AND AMENDMENT NO. 91 TO FACILITY OPERATING LICENSE NO. DPR-74
INDIANA AND MICHIGAN ELECTRIC COMPANY
DONALD C. COOK NUCLEAR PLANT, UNITS 1 AND 2
DOCKET NOS. 50-315 AND 50-316

INTRODUCTION

By letter dated August 19, 1986, the Indiana and Michigan Electric Company (the licensee) submitted proposed Technical Specification changes for the Donald C. Cook Nuclear Plant, Unit Nos. 1 and 2. The changes clarify the snubber requirements, correct designations and classifications of snubbers, and correct several editorial errors. Some changes are to make the Unit 1 and Unit 2 Technical Specifications consistent.

EVALUATION

The visual inspection section of Technical Specification 3/4.7.8 was proposed to be changed for both units to allow inspections in less time than the -25% of the inspection period. This was on the basis that there may be times when the inspection can be performed during an outage that has occurred in less time than currently allowed by the -25% frequency provision. It was the licensee's position that strict adherence to the current Technical Specification would require an additional subsequent outage to inspect snubbers with no clear increase in safety. After further discussions with the licensee, it was agreed that no change to Technical Specification was necessary and the inspections could be performed in less time than the -25%. It is important that surveillance performed sooner than 25% before the stated interval cannot be used to lengthen the surveillance interval and the licensee has recognized this. We find this change acceptable.

Specification 3/4.7.8 for both units has been corrected with an additional phrase on Unit 1 which was inadvertently omitted and a correction to a footnote on Unit 2 which corrects the footnote and is consistent with Unit 1 and the Standard Technical Specification. A reference on Unit 2 was also corrected. These changes correct errors in wording and do not change the intended requirements, plant operation, or safety. We find these changes acceptable.

The licensee has proposed an additional phrase be added to the visual inspection provisions for both units to clarify which of two ports on the snubber should be used to determine adequate fluid in the snubber and operability. The port nearest the valve operator was determined to be a line connection and unsuitable for visual examination without disassembly in place. The licensee

agreed to delete this part of their request and will consider any further like changes in a subsequent submittal. We find this acceptable. The licensee has proposed a number of other editorial corrections and in each case, the change is acceptable.

Table 3.7-4 of the Technical Specification is a listing of the safety related hydraulic snubbers. The licensee has determined that some designations and locations are incorrect and has changed the table accordingly. The table also lists the snubbers as accessible or inaccessible. This latter designation is incorrect for a number of snubbers and the licensee has corrected the table accordingly. We have reviewed these changes and the basis for the inaccessible snubbers, ALARA concerns, and agree with the licensee on the changes. We find proposed revisions to the table for both units to be acceptable.

ENVIRONMENTAL CONSIDERATION

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

CONCLUSION

We have concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: D. Wigginton

Dated: April 7, 1987