

Docket Nos. 50-315

September 6, 1989

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

Dear Mr. Alexich:

SUBJECT: AMENDMENT NO. 128 TO FACILITY OPERATING LICENSE NO. DPR-58
(TAC NO. 74562)

The Commission has issued the enclosed Amendment No. 128 to Facility Operating License No. DPR-58 for the Donald C. Cook Nuclear Plant, Unit No. 1. The amendment consist of changes to the Technical Specifications in response to your application dated September 1, 1989.

This amendment modifies TS 3/4.7.8 (snubbers) so that functional testing of a snubber installed on the pressurizer spray line may be delayed until the next time the unit is brought to Mode 5 or in conjunction with ice basket weighing whichever occurs first.

Specifically, a footnote is added to Table 3.7.4 stating that testing of the snubber installed on the pressurizer spray line, 1-GRC-S519, may be delayed until the first time the unit enters Mode 5 after September 4, 1989 or in conjunction with the the scheduled ice condenser ice basket surveillance, whichever occurs first.

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

Sincerely,

~~Handwritten signature~~

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

Enclosures:

1. Amendment No. 128 to DPR-58
2. Safety Evaluation

cc w/enclosures:
See next page

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||

COOK AMEND TAC 74562	
LA/PD31: DRSP	PM/PD31: DRSP
PShuttleworth	JGitter
9/6/89	9/6/89

EMEB *	(ASD) PD31: DRSP	OGC *
PTKuo	J. THOMAS	
9/ /89	9/06/89	9/ /89

8909140214 890906
PDR ADDCK 05000315
PDC

* SEE PREVIOUS CONCURRENCE

Handwritten initials/signature

Docket Nos. 50-315

Mr. Milton P. Alexich, Vice President
Indiana Michigan Power Company
c/o American Electric Power Service Corporation
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Dear Mr. Alexich:

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(TAC NO. 724562)

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Sincerely,

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

Enclosures:

1. Amendment No. to DPR-58
2. Safety Evaluation

cc w/enclosures:
See next page

COOK AMEND TAC 74562

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PShuttleworth	JGitter
9/6/89 <i>MSK</i>	9/ /89

EMEB	(A)D/PD31:DRSP
PTKuo	
9/ /89	9/ /89

OGC *JG*
9/6/89

Docket Nos. 50-315
and 50-316

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

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Sincerely,

Joseph Gitter, Project Manager
Project Directorate III-1
Division of Reactor Projects - III,
IV, V & Special Projects

Enclosures:

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cc w/enclosures:

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COOK AMEND TAC 74562

LA/PD31:DRSP
PShuttleworth
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JGitter
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OK for
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

September 6, 1989

Docket No. 50-315

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

Dear Mr. Alexich:

SUBJECT: AMENDMENT NO.128 TO FACILITY OPERATING LICENSE NO. DPR-58
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Sincerely,

A handwritten signature in cursive script that reads "Joseph Gitter".

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

Enclosures:

1. Amendment No.128 to DPR-58
2. Safety Evaluation

cc w/enclosures:
See next page

Mr. Milton Alexich
Indiana Michigan Power Company

Donald C. Cook Nuclear Plant

cc:

Regional Administrator, Region III
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Department of Attorney General
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U.S. Nuclear Regulatory Commission
Resident Inspectors Office
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Washington, DC 20037

Mayor, City of Bridgman
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Bridgman, Michigan 49106

Special Assistant to the Governor
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Lansing, Michigan 48909

Nuclear Facilities and Environmental
Monitoring Section Office
Division of Radiological Health
Department of Public Health
3500 N. Logan Street
Post Office Box 30035
Lansing, Michigan 48909



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

INDIANA MICHIGAN POWER COMPANY

DOCKET NO. 50-315

DONALD C. COOK NUCLEAR PLANT, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 128
License No. DPR-58

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Indiana Michigan Power Company (the licensee) dated September 1, 1989, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

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:

Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 128, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

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

FOR THE NUCLEAR REGULATORY COMMISSION



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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: September 6, 1989

ATTACHMENT TO LICENSE AMENDMENT NO. 128

FACILITY OPERATING LICENSE NO. DPR-58

DOCKET NO. 50-315

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

REMOVE

3/4 7-31

INSERT

3/4 7-31

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>
* 1	1-GRC-S519	REACTOR COOLANT . ELEV. 683'- 5 1/2" IN PRESSURIZER ENCLOSURE	<u> </u>	<u> No </u>	<u> No </u>
2	1-GRC-S537	REACTOR COOLANT AZ 25° ELEV. 610'-5" BETWEEN STM. GEN. NO. 1 AND RC PUMP NO. 1	<u> </u>	<u> Yes </u>	<u> No </u>
3	1-GRC-S538	REACTOR COOLANT AZ 41° ELEV. 614'-10" BELOW STM. GEN. NO. 1	<u> </u>	<u> No </u>	<u> No </u>
4	1-GRC-S555	REACTOR COOLANT AZ 141° ELEV. 614'-2" BELOW STM. GEN. NO. 2	<u> </u>	<u> No </u>	<u> No </u>
5	1-GRC-S562	REACTOR COOLANT AZ 154° ELEV. 610'-5" BETWEEN STM. GEN. NO. 2 AND RC PUMP NO. 2	<u> </u>	<u> Yes </u>	<u> No </u>
6	1-GRC-S564	REACTOR COOLANT AZ 313° ELEV. 614'-10 1/8" BELOW STM. GEN. NO. 4	<u> </u>	<u> No </u>	<u> No </u>
7	1-GRC-S566	REACTOR COOLANT AZ 332° ELEV. 610'-5" BETWEEN STM. GEN. NO. 4 AND RC PUMP NO. 4	<u> </u>	<u> Yes </u>	<u> No </u>
8	1-GRC-S573	REACTOR COOLANT AZ 223° ELEV. 614'-10 1/8" BELOW STM. GEN. NO. 3	<u> </u>	<u> No </u>	<u> No </u>

*Functional testing of this snubber may be delayed until the first time the unit enters Mode 5 after September 4, 1989, or in conjunction with the scheduled ice condenser ice basket surveillance, whichever occurs first.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 128 TO FACILITY OPERATING LICENSE NO. DPR-58

INDIANA MICHIGAN POWER COMPANY

DONALD C. COOK NUCLEAR PLANT, UNIT NO. 1

DOCKET NO. 50-315

1.0 INTRODUCTION

Technical Specification (TS) Surveillance Requirement 4.7.8 (Snubbers) specifies that snubbers shall be demonstrated operable, on a sampling basis, by a combination of visual and functional tests. Surveillance Requirement 4.7.8.c further specifies that snubbers which failed the previous functional test shall be retested during the next test period.

In August 1987, snubber 1-GRC-S519, which is located on the pressurizer spray line inside the pressurizer enclosure, was tested per the requirements of TS 4.7.8 and failed the functional test. The functional test required the snubber to lock up at velocities between approximately 0.5 and 15.1 inches/minute, but the snubber did not lock up until reaching a velocity of 16.3 inches/minute. The licensee completely rebuilt the snubber per their own requirements. Upon successfully passing the functional test, the snubber was declared operable. However, the licensee failed to retest the snubber during the next test period, which was the refueling outage in the spring of 1989.

At 0800 hours on Friday, September 1, 1989, the licensee discovered that they had neglected to perform the functional test of Snubber No. 1-GRC-S519 as required by TS and entered a 72 hour action statement. Consequently, the licensee requested an emergency TS change which would modify TS 3/4.7.8 such that functional testing of Snubber No. 1-GRC-S519 may be delayed until the next time the unit is brought to Mode 5. Specifically, a footnote is added to Table 3.7-4 stating, "Functional testing of this snubber may be delayed until the first time the unit enters Mode 5 after September 4, 1989." In a teleconference on September 6, 1989, the licensee agreed to add a statement to the footnote that would require functional testing of the snubber in conjunction with the scheduled ice condenser ice basket surveillance or when the unit is brought to Mode 5, whichever occurs first.

The staff reviewed the licensee's evaluation and in a letter dated September 1, 1989, granted a temporary waiver of compliance in order to evaluate and process the emergency TS change request. This Safety Evaluation addresses that request.

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2.0 EVALUATION

The licensee supplied information to support their TS change request in a letter dated September 1, 1989, and provided supplemental information in a letter dated September 6, 1989. These submittals provided the information necessary for the staff's evaluation of the TS change. The staff's evaluation is summarized in the following subsections.

2.1 Reliability Of Rebuilt Snubbers

No. 1-GRC-S519 is a 2 1/2" x 5" Grinnell snubber. Twenty-one of these snubbers were tested in 1978. Of the twenty-one tested, eighteen snubbers failed their as-found test and were rebuilt or adjusted. The majority of the failures were due to high lock-up velocities (similar to failure of Snubber No. 1-GRC-S519 in 1987). To date, none of the eighteen snubbers rebuilt or adjusted has experienced a subsequent failure. Snubber No. 1-GRC-S519 passed its functional test in 1978 and was not rebuilt until after it failed due to a high lock-up velocity (1.2 inches/minute above limit) in August of 1987. As stated previously, Snubber No. 1-GRC-S519 passed its functional test after being rebuilt.

The licensee has appeared to follow good practice in assuring that the snubbers were properly rebuilt. The replacement parts for the snubbers are purchased as N-Grade and shelf life for seal materials is monitored to ensure out of date materials are not installed. Reference to part numbers in the maintenance procedures also helps ensure that the correct part numbers are used.

Although the licensee failed to perform a functional test of Snubber No. 1-GRC-S519 in the 1989 spring refueling outage, a visual test was conducted. The snubber passed the visual test with no indication of leaks or disturbances.

Based on the statements in the preceding paragraphs of this subsection, it would appear that there is reasonable assurance that Snubber No. 1-GRC-S519 would be capable of performing its required function.

2.2 Consequence Of Snubber No. 1-GRC-S519 Failure

At the licensee's request, Grinnell evaluated the increase in the specified lock-up velocity and determined that there were no significant differences in the dynamic responses and that the snubber would have locked up as expected in response to a seismic event. The staff accepts this assessment. The PISOL code, which is used for seismic analysis of the piping system containing Snubber No. 1-GRC-S519, considers the snubber to be in a locked condition during both the operational basis earthquake (OBE) and the design basis earthquake (DBE) condition. The piping analysis results remain valid unless (1) the snubber does not lock up or (2) there is significant pin to pin displacement of the snubber prior to its lock-up.

Grinnell confirmed that the snubber would properly lock-up at a velocity of 16.3 inches/minute during an OBE or a DBE. The licensee also determined that the maximum pin to pin displacement of a snubber at any locking velocity is not significantly different from the value at the factory setting and concluded that there will be no significant change in pin to pin displacement of Snubber No. 1-GRC-S519 based on the recorded velocity.

Therefore, it appears that even if the snubber were to "fail" in a manner similar to that experienced during the 1987 functional test, it would still lock in response to a design basis seismic event, thereby precluding failure of the pressurizer spray line.

2.3 Extension Of Functional Test Interval

In a letter dated September 1, 1989, the staff issued a letter that granted the licensee a temporary waiver of compliance. That letter stated that the functional testing of Snubber No. 1-GRC-S519 shall be performed in conjunction with the TS Surveillance Requirement 4.6.5.1.b.2 (ice condenser) or sooner in the event of a forced outage requiring entry into Mode 5, or in any event, not later than December 31, 1989. The December 31, 1989, date was specified with the understanding that the ice condenser ice basket surveillances were scheduled for December of 1989. However, the licensee incorrectly supplied the staff with the date corresponding to scheduled ice condenser ice basket surveillance for Unit 2. The ice basket surveillance for Unit 1 is scheduled for February of 1990.

3.0 EMERGENCY CIRCUMSTANCES

By letter dated September 1, 1989, the licensee requested that this amendment be treated as an emergency because, unless approved, the plant would have to proceed to cold shutdown. Shutting down to Mode 5 would result in additional thermal cycling of the unit. It is necessary to enter Mode 5 to remove Snubber No. 1-GRC-S519 for functional testing, because of combination of extreme temperatures in the area and ALARA considerations.

In accordance with 10 CFR 50.91(a)(5), the licensee has explained that the need for an emergency TS change could not have been avoided since the missed functional test of Snubber No. 1-GRC-S519 was not discovered until 0800 on September 1, 1989, when the unit was operating at full power.

4.0 FINAL NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The Commission's regulations in 10 CFR 50.92 state that the Commission may make a final determination that a license amendment involves no significant hazards consideration if operation of the facility, in accordance with the amendment, would not:

- (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or
- (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or
- (3) Involve a significant reduction in a margin of safety.

The proposed changes do not involve a significant hazards consideration because the operation of Donald C. Cook, Unit 1 in accordance with these changes would not:

- (1) Involve a significant increase in the probability or consequences of an accident previously evaluated.

Based on the experience with rebuilt snubbers and the fact that a snubber can marginally exceed the locking velocity limit associated with the functional test and still perform its intended function, there is reasonable assurance that Snubber No. 1-GRC-S519 would lock-up in response to a design basis earthquake. In light of this fact and the low probability of an earthquake for this region, the staff has determined that the extension of the functional test until the scheduled time frame for the ice condenser ice basket surveillances (February, 1990) does not significantly increase the probability or consequences of an accident previously evaluated.

- (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or

The change involves no physical modifications to the plant nor any changes in plant operations. As discussed previously, there is reasonable assurance that Snubber No. 1-GRC-S519 would perform its intended function.

Therefore, the change should not create the possibility of a new or different kind of accident from any previously evaluated.

- (3) Involve a significant reduction in a margin of safety.

Because there is reasonable assurance that Snubber No. 1-GRC-S519 would lock-up as required in response to an earthquake, this change would not result in a significant reduction of a safety margin. Even if the snubber marginally exceeded the functional test lock-up velocity, as in the August 1987 test, the snubber would have performed the required safety function. Furthermore, the uncertainties in determining whether a change in margin has occurred are such that it cannot be concluded reasonably that the margin actually changed. Therefore, the change is not considered a reduction in a margin of safety.

Accordingly, the Commission has determined that this amendment to Facility Operating License No. DPR-58 involves no significant hazards consideration.

5.0 STATE CONSULTATION

In accordance with the Commission's regulations, efforts were made to contact the State of Michigan. The state representative was contacted and had no comments.

6.0 ENVIRONMENTAL CONSIDERATION

This amendment involves a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 or a change in a surveillance requirement. 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 this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 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 this amendment.

7.0 CONCLUSION

We have concluded, based on the considerations discussed above that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: September 6, 1989

Principal Contributor: J. G. Gitter