

**REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)**

ACCESSION NBR: 9504060198      DOC. DATE: 95/03/31      NOTARIZED: YES      DOCKET #  
 FACIL: 50-315 Donald C. Cook Nuclear Power Plant, Unit 1, Indiana M 05000315  
       50-316 Donald C. Cook Nuclear Power Plant, Unit 2, Indiana M 05000316  
 AUTH. NAME      AUTHOR AFFILIATION  
 FITZPATRICK, E.      Indiana Michigan Power Co. (formerly Indiana & Michigan Ele  
 RECIP. NAME      RECIPIENT AFFILIATION  
                      Document Control Branch (Document Control Desk)

SUBJECT: Application for amends to licenses DPR-58 & DPR-74. Amends  
 would modify TS 3/4.6.1.7 to allow limited purge operation  
 in modes 1, 2, 3 & 4 for pressure control, ALARA & respirable  
 air quality considerations.

DISTRIBUTION CODE: A001D      COPIES RECEIVED: LTR 1      ENCL 1      SIZE: 8+9  
 TITLE: OR Submittal: General Distribution

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
	PD3-1 LA	1 1	PD3-1 PD	1 1
	HICKMAN, J	1 1		
INTERNAL:	FILE CENTER 01	1 1	NMSS/DWM/LLDP	2 2
	NRR/DRCH/HICB	1 1	NRR/DSSA/SPLB	1 1
	NRR/DSSA/SRXB	1 1	NUDOCS-ABSTRACT	1 1
	OGC/HDS2	1 0		
EXTERNAL:	NOAC	1 1	NRC PDR	1 1

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL  
 DESK, ROOM P1-37 (EXT. 504-2083) TO ELIMINATE YOUR NAME FROM  
 DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

TOTAL NUMBER OF COPIES REQUIRED: LTTR 13      ENCL 12

P  
R  
I  
O  
R  
I  
T  
Y  
  
D  
O  
C  
U  
M  
E  
N  
T





March 31, 1995

AEP:NRC:1185

Docket Nos.: 50-315  
50-316

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D. C. 20555

Gentlemen:

Donald C. Cook Nuclear Plant Units 1 and 2  
PROPOSED AMENDMENT TO TECHNICAL SPECIFICATION SECTION  
3/4.6.1.7 FOR CONTAINMENT PURGE REQUIREMENTS and

This letter and its attachments constitute an application for amendment to the Technical Specifications (T/Ss) for Donald C. Cook Nuclear Plant Units 1 and 2. Specifically, we are proposing to modify T/Ss 3/4.6.1.7, Containment Ventilation System, and its associated Bases, to allow limited (240 hours annually) purge operation in MODES 1, 2, 3, and 4 for pressure control, ALARA and respirable air quality considerations. The proposed changes will enhance our ability to use the containment purge system to reduce unnecessary hardships on plant personnel performing activities in containment. Additionally, an increase in allowable purge time is being requested to address improvements in plant operations and capacity factors.

Attachment 1 provides a detailed description of the proposed changes, the justification for the changes, and our determination of no significant hazards consideration performed pursuant to 10 CFR 50.92. Attachment 2 contains the existing T/S pages marked to reflect the proposed changes. Attachment 3 contains the revised T/S pages.

We believe the proposed changes will not result in (1) a significant increase in the amounts, and no significant change in the types of any effluent that may be released offsite, or (2) a significant increase in individual or cumulative occupational radiation exposure.

These proposed changes have been reviewed by the Plant Nuclear Safety Review Committee and the Nuclear Safety and Design Review Committee.

9504060198 950331  
PDR ADDCK 05000315  
P PDR

ADD 1



11

In compliance with the requirements of 10 CFR 50.91(b)(1), copies of this letter and its attachments have been transmitted to the Michigan Public Service Commission and to the Michigan Department of Public Health.

Sincerely,



E. E. Fitzpatrick  
Vice President

SWORN TO AND SUBSCRIBED BEFORE ME

THIS 31st DAY OF March 1995

Rita L. Hice  
Notary Public

My Commission Expires: 6-28-99

eh

Attachments

cc: A. A. Blind  
G. Charnoff  
J. B. Martin  
NFEM Section Chief  
NRC Resident Inspector - Bridgman  
J. R. Padgett

ATTACHMENT 1 TO AEP:NRC:1185

DESCRIPTION AND JUSTIFICATION OF CHANGES

10 CFR 50.92 ANALYSIS FOR CHANGES  
TO THE DONALD C. COOK NUCLEAR PLANT  
UNITS 1 AND 2 TECHNICAL SPECIFICATIONS



## I. DESCRIPTION OF CHANGES

The proposed amendment to Technical Specifications (T/Ss) 3/4.6.1.7 makes the following specific changes to the Cook Nuclear Plant Units 1 and 2 T/Ss:

### T/S 3/4.6.1.7

- A. Revises the Limiting Condition for Operation for specification 3/4.6.1.7 (on page 3/4 6-9a) to redefine the conditions in which it is permissible to operate the containment purge system when in MODES 1, 2, 3, and 4. The proposed Limiting Condition for Operation would be modified to read:

"The containment purge supply and exhaust isolation valves shall be closed except when operation of the containment purge system is required for; pressure control, ALARA, and respirable air quality considerations for personnel entry and for surveillance testing and maintenance activities."

- B. Revise the Bases for specification 3/4.6.1.7 (page B 3/4 6-2a) to reflect the activities which allow purging in MODES 1, 2, 3, and 4, as defined above. Additional changes to the bases will include, 1) increasing the allowable purge time from 200 to 240 hours, 2) adding a reference to the ability of the purge isolation valves to close against LOCA forces, thereby assuring 10 CFR 100 guidelines are maintained, and 3) deleting "\*\*\*" notes corrected during previous amendments.

## II. JUSTIFICATION FOR CHANGES

### T/S 3/4.6.1.7

We propose to change the wording in both the Limiting Condition For Operation and the Bases of T/S 3/4.6.1.7 to allow limited containment purging while in MODES 1, 2, 3, and 4 for reasons other than "safety related reasons."

As currently written, use of the containment purge system during MODES 1, 2, 3, and 4 is limited to "safety related reasons." These are defined as "the need to improve containment working conditions, e.g., reduce airborne activity, to perform surveillance and/or maintenance on a safety-related system or piece of equipment." Additionally, purge operation is limited to 200 hours, per the technical specification bases.

The restrictiveness of this wording results in unnecessary hardship to operators, maintenance technicians, instrument technicians, and other plant workers performing routine tasks in containment. For example, maintenance activities related to the upper containment





ventilation systems and the glycol floor cooling system represent required activities on equipment which is not characterized as "safety related."

A change to the specification would allow the limited use of containment purge to address adverse environmental conditions (i.e., temperature, humidity, and/or pressure), ALARA concerns, and to assure that respirable air quality is maintained. It should be noted that the use of the purge system to support the above activities would be restricted to occasions when the existing air filtration and temperature control systems were not sufficient to provide a containment atmosphere supportive of working conditions.

An additional change to T/S 3/4.6.1.7 is to increase the current purge limit of 200 hours per year to 240 hours. The original time limit was calculated based on a unit capacity factor of 77%. As a result of longer operating cycles and improved plant performance, the Cook Nuclear Plant capacity factor is now forecasted to be 93%. Utilizing the same calculation which established the 200 hour limit, and increasing the capacity factor to 93% yields a value of 240 hours. This increased time allotment reflects the additional time the unit will remain in MODES 1, 2, 3, and 4 with a 93% capacity factor.

As stated in the technical specification bases, the containment purge system at Cook Nuclear Plant has been designed in accordance with NRC Branch Technical Position CBS 6-4, Rev. 1, and demonstrated to be capable of closure against the dynamic forces associated with a loss of coolant accident. The purge valves will receive a containment ventilation isolation signal on both a safety injection and high radiation signals and close within 5 seconds. In accordance with the above Branch Technical Position, the potential site boundary doses were calculated based on the original analysis used to determine the radiological consequences of a loss of coolant accident. The results of this analysis indicated a total thyroid dose of 165 rem for the 0-2 hour site boundary dose and a whole body dose of 9.32 rem. Since physical changes will not result from the proposed amendment, the site boundary dose guidelines of 10 CFR 100 (300 rem thyroid and 25 rem whole body) will not be exceeded in the event of an accident during containment purging operations.

The addition of 40 hours of allowable annual purge time will not result in a significant increase in the amount of effluent released. The Offsite Dose Calculation Manual (ODCM) ensures that the dose rate at any time at the SITE BOUNDARY from gaseous effluent from all units on the site will be within the annual dose limits of Appendix B, Table 2, Column 1 of 10 CFR 20 for UNRESTRICTED AREAS. These specifications will be strictly adhered to during any release via the purge pathway.

In conclusion, we believe that the proposed technical specifications will not affect system capability or introduce a new or different mode of purge system operation not previously addressed in the above analysis.

### III. 10 CFR 50.92 CRITERIA

Per 10 CFR 50.92, a proposed change does not involve a significant hazards consideration if the change does not:

1. involve a significant increase in 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
3. involve a significant reduction in a margin of safety.

#### Criterion 1

The purpose of this amendment is to allow flexibility in the use of the containment purge system during MODES 1, 2, 3, and 4. The use of this system during these modes of operation has previously been approved (Amendment No. 66). Therefore, this amendment request does not involve a significant increase in the probability or consequences of an accident previously evaluated because the proposed change to the T/Ss does not affect the assumptions, parameters, or results of any UFSAR accident analysis. Based on the existing system design and demonstrated closure capability it is concluded that the proposed changes do not modify the response of the containment during a design basis accident. The proposed amendment does not add or modify any existing equipment. Based on these considerations, it is concluded that the changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

#### Criterion 2

The proposed change does not involve physical changes to the plant or changes in the plant operating configuration. Thus, it is concluded that the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

Criterion 3

The margin for safety presently provided is not reduced by the proposed change. As discussed previously, the containment purge valves have been designed and demonstrated capable of closure against the dynamic forces resulting from a loss of coolant accident. The proposed amendment does not impact the ability of the purge valves to perform their intended function (i.e. achieve closure) in the event of an accident. Based on these considerations, it is concluded that the changes do not involve a significant reduction in a margin of safety.

IV. CONCLUSION

In conclusion, we believe that the proposed change does not involve significant hazards considerations because, as demonstrated in the previous discussions, operation of the Cook Nuclear Plant in accordance with the changes would not:

1. involve a significant increase in 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
3. involve a significant reduction in a margin of safety.

ATTACHMENT 2 TO AEP:NRC:1185

EXISTING TECHNICAL SPECIFICATION  
PAGES MARKED TO REFLECT PROPOSED CHANGES

