

PRIORITY 1

(ACCELERATED RIDS PROCESSING)

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9510250094 DOC. DATE: 95/10/13 NOTARIZED: NO DOCKET #
FACIL: 50-315 Donald C. Cook Nuclear Power Plant, Unit 1, Indiana M 05000315 P
50-316 Donald C. Cook Nuclear Power Plant, Unit 2, Indiana M 05000316
AUTH. NAME AUTHOR AFFILIATION R
FITZPATRICK, E. Indiana Michigan Power Co.
RECIP. NAME RECIPIENT AFFILIATION
Document Control Branch (Document Control Desk) I

SUBJECT: Responds to GL 95-07, "Pressure Locking & Thermal Binding
Of Safety-Related Power-Operated Gate Valves." O

DISTRIBUTION CODE: A056D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 6
TITLE: Generic Ltr 95-07 - Pressure Locking & Thermal Binding of Safety Rela R

NOTES:

 I

	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	
	NRR/DRPE/PD1-1	1 1	PD3-1 PD	1 1	T
	HICKMAN, J	1 1			Y
INTERNAL:	<u>FILE CENTER</u> 01	1 1	NRR/EMEB/B	1 1	
EXTERNAL:	NOAC	1 1	NRC PDR	1 1	1
	NUDOCS ABSTRACT	1 1			

D
O
C
U
M
E
N
T

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL
DESK, ROOM OWFN 5D8 (415-2083) TO ELIMINATE YOUR NAME FROM
DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

TOTAL NUMBER OF COPIES REQUIRED: LTTR 8 ENCL 8



**INDIANA
MICHIGAN
POWER**

October 13, 1995

AEP:NRC:0966X

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
GL 95-07, PRESSURE LOCKING AND THERMAL BINDING
60 DAY RESPONSE

Generic Letter 95-07, "Pressure Locking and Thermal Binding of Safety-Related, Power-Operated Gate Valves," dated August 17, 1995, requests certain actions be taken by utilities regarding the susceptibility and evaluation of power-operated gate valves to these phenomena.

The generic letter has two requested actions. First, within 90 days, identify the valves which are potentially susceptible to pressure locking and thermal binding, and provide a basis for their operability. Second, within 180 days, conduct an evaluation of susceptible valves, and perform further analysis and corrective actions with justification for longer implementation schedules as needed.

The responses required of utilities are: 1) a 60-day response describing the extent of intended implementation of the requested actions and associated schedule, or an alternate course of action as appropriate, and 2) a 180-day response documenting the second requested action by providing the following requested information:

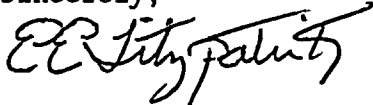
1. Description of susceptibility evaluations, additional analysis, and the susceptibility criteria used.
2. Evaluation results, including a list of susceptible valves.
3. Corrective actions identified, schedules, and justifications of acceptability as appropriate.

9510250074 951013
PDR:ADOCK 05000315
PDR

1056

Our 60-day response is contained in the attachment to this letter.

Sincerely,



E. E. Fitzpatrick
Vice President

SWORN TO AND SUBSCRIBED BEFORE ME

THIS 13th DAY OF October 1995


Notary Public

My Commission Expires: 2-9-98

plt

Attachment

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



ATTACHMENT TO AEP:NRC:0966X

60-DAY RESPONSE TO GENERIC LETTER 95-07

11

Background

The original design of Donald C. Cook Nuclear Plant considered thermal binding. For those safety-related services identified as being susceptible to thermal binding, double disc or parallel slide gate valves, which are not subject to thermal binding, were installed. Pressure locking was identified as a potential problem prior to commercial operation of unit 1, and a design change was initiated to equip those safety-related valves which were identified as being susceptible to pressure locking with pressure equalizing connections between the valve bonnet and process piping. The scope of the design change included a combined total of 32 valves in the two units. (A subsequent design change removed the two containment sump recirculation valves per unit from the population.)

The subjects of pressure locking and thermal binding were revisited in response to INPO Significant Operating Event Report (SOER) 84-07, at which time one additional service was identified as being susceptible to pressure locking, and pressure equalizing lines were added to two valves per unit in that service. At that time, the basis for the decision to remove the two containment sump recirculation valves per unit from the scope of the design change was corroborated. There are currently 32 valves in the two units at Cook Nuclear Plant which are equipped with pressure equalization lines.

A subsequent investigation of pressure locking was a result of an NRC inspection which questioned the validity of not having modified the containment sump recirculation valves. A mathematical analysis was performed to support our decision that the valves would function as required, and NRC Inspection Manual Temporary Instruction 2515/129 was closed for Cook Nuclear Plant.

The subjects of pressure locking and thermal binding at Cook Nuclear Plant are not considered to be a safety problem. The issues have been addressed as early as the plant design phase, and have been revisited on several occasions. Results of the various investigations of the design basis and valve arrangements have indicated that no pressure locking or thermal binding problems are inherent in the Cook Nuclear Plant installation or operating philosophy.

Westinghouse Owner's Group Efforts

In response to utilities' concerns about being able to provide timely and complete responses to Generic Letter 95-07, the Westinghouse Owner's Group (WOG) has developed a program to assist

utilities in addressing the requirements of Generic Letter 95-07. In part, the program will establish a common set of criteria which can be applied in the screening and evaluation of the pressure locking and thermal binding phenomena. Most of the NSSS systems, as well as many of the valves in those systems, are common among the various Westinghouse plants. Thus, it is beneficial and cost effective, to both WOG members and the NRC, to utilize the expertise of the member utilities and Westinghouse to develop a consistent, effective, and comprehensive set of screening and evaluation criteria that can be used by all WOG plants. To this end, a task team of WOG members has been formed as a part of this program and is in the process of developing the criteria.

A set of screening criteria will be defined to identify valves potentially susceptible to pressure locking and thermal binding, taking into account both component and systems considerations. Criteria and methodology are also being developed to assist in determining the impact on safety function capability for each valve determined to be potentially susceptible to pressure locking and thermal binding. Once the criteria have been established, each utility can apply the criteria to its own population of safety-related, power-operated gate valves. As potentially susceptible valves are identified, the evaluation criteria and methodology will be used to determine the impact on valve safety function capability.

Because of the importance of completing further evaluations to determine what effect pressure locking and thermal binding may have on valve operability, it is felt that resources can be more appropriately and productively focused on meeting the requested 180-day actions, and waive the requested 90-day action. The WOG Task Team has established an aggressive schedule for the criteria development for valves potentially susceptible to pressure locking and thermal binding. Even with this aggressive schedule, operability assessment efforts will be most effective if they are concentrated on only those valves for which long term safety function capability is not demonstrated. If at any time during the evaluation process, a valve is determined to be incapable of performing its safety function, an operability assessment will be made and a justification of continued acceptability developed. If operability cannot be demonstrated, applicable technical specification actions will be followed.

Response

The Cook Nuclear Plant will comply with all actions and responses specified in the 180-day required response. These include completion and summary description of the following:

- Screening criteria
- List of susceptible valves
- Description of evaluations

- Susceptibility evaluation results
- Corrective actions taken or scheduled
- Justifications for continued acceptability, as needed.

These actions will be completed and the responses provided to the NRC within 180 days of the date of Generic Letter 95-07.