CATEGORY 1

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9810200183 DOC.DATE: 98/10/16 NOTARIZED: NO DOCKET #
FACIL:50-315 Donald C. Cook Nuclear Power Plant, Unit 1, Indiana M 05000315
AUTH.NAME AUTHOR AFFILIATION
POWERS,R.P. Indiana Michigan Power Co. (formerly Indiana & Michigan Ele
RECIP.NAME RECIPIENT AFFILIATION
Records Management Branch (Document Control Desk)

SUBJECT: Informs of plans for resolving issue of thin pipe wall section discovered in section of plant main steam sys,per 980804 conversation with NRC.

DISTRIBUTION CODE: A001D COPIES RECEIVED:LTR 1 ENCL 0 SIZE: 2
TITLE: OR Submittal: General Distribution

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL
	PD3-3 LA	1	1	PD3-3 PD	1	1
	STANG,J	1	1			
INTERNAL:	FILE CENTER 01	1	1	NRR/DE/ECGB/A	1	1
	NRR/DE/EMCB	1	1	NRR/DRCH/HICB	1	1
	NRR/DSSA/SPLB	1	1	NRR/DSSA/SRXB	1	1
	NUDOCS-ABSTRACT	1	1	OGC/HDS3	1	0
EXTERNAL:	NOAC	1	1	NRC PDR	1	1

C A T E G O R Y 1 D O C U M E N T

NOTE TO ALL "RIDS" RECIPIENTS:
PLEASE HELP US TO REDUCE WASTE. TO HAVE YOUR NAME OR ORGANIZATION REMOVED FROM DISTRIBUTION LISTS OR REDUCE THE NUMBER OF COPIES RECEIVED BY YOU OR YOUR ORGANIZATION, CONTACT THE DOCUMENT CONTROL DESK (DCD) ON EXTENSION 415-2083

TOTAL NUMBER OF COPIES REQUIRED: LTTR 13 ENCL ~~12~~ 0

Indiana Michigan
Power Company
500 Circle Drive
Buchanan, MI 49107 1373

INDIANA
MICHIGAN
POWER

AEP NRC: 1098C

October 16, 1998

Docket No: 50-315

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Stop O-P1-17
Washington, D. C. 20555-0001

Gentlemen:

Donald C. Cook Nuclear Plant Unit 1
MAIN STEAM SYSTEM - PIPE WALL THINNING

References:

1. Letter, AEP:NRC:1098A, "Donald C. Cook Nuclear Plant Unit 1, MAIN STEAM SYSTEM-PIPE WALL THINNING", dated April 17, 1997.

2. Letter AEP:NRC:1098B, "Donald C. Cook Nuclear Plant Unit 1, MAIN STEAM SYSTEM PIPE-WALL THINNING", dated May 5, 1997.

The purpose of this letter is to inform you of our plans for resolving the issue of a thin pipe wall section discovered in a section of the unit 1 main steam system. This information was requested during an August 4, 1998, conversation with members of the NRC staff.

1/0

During the 1995 unit 1 refueling outage, the erosion-corrosion program identified that the wall thickness of the main steam piping in the extrados of the bend (1-MS-1) was less than the code allowable primary calculation (equation 3) in the ASME B31.1 code, 1967 Edition. It was determined that this piping was acceptable for cycle 15 with the condition that thickness measurements be taken again during the next refueling outage (U1R97). Wall thickness measurements were again performed in 1997. The results were comparable with the 1995 results indicating that erosion-corrosion is not active in this piping.

A001

As the measured wall thickness was determined to be less than the code allowable primary calculation (equation 3, B31.1), we performed an alternate code acceptable calculation using the actual ultimate tensile strength from the certified material test report (CMTR) to compute the allowable stress. The alternate code-acceptable minimum wall thickness calculation, based on the computed allowable stress using the lowest value ultimate tensile

strength of seven lots of material listed on the CMTR, is 0.828". The minimum measured wall thickness in the pipe was 0.843". This information was transmitted to the NRC via reference 1.

The use of CMTR data was unacceptable to the NRC, and a relief request for one cycle of operation was submitted via reference 2.

We have removed a boat sample from the surface of the unit 1 main steam pipe sweep downstream of steam generator one. The boat sample was machined into a round tensile pull specimen and pulled within a tensile test machine. The ultimate tensile strength (UTS) test result obtained from the main steam line exceeded the minimum tensile strength required. However, it did not meet or exceed the UTS value we needed to establish a new minimum pipe wall thickness that would be lower than the actual pipe wall thickness measured. The required design minimum UTS is 70 ksi. The actual measured UTS was 74.6 ksi. To establish a new minimum pipe wall thickness that would deem the actual pipe wall thickness acceptable, we needed to have a UTS value of 75.4 ksi.

As a result of this tensile test, we will perform an internal base metal buildup of the existing pipe. A small section of pipe will be removed from the pipe sweep, thus allowing access to the internal surface of the pipe sweep. The pipe wall thickness will be increased by performing a base metal weld buildup on the internal surface of the pipe prior to unit 1 restart. The small section of pipe will then be welded back in place. The base metal buildup will increase the pipe wall thickness to a value that exceeds the minimum pipe wall thickness required by the piping design code, B31.1, thus complying with our FSAR.

Based on the results of the tensile test and our plans to build up the base metal of the piping, the relief request submitted via reference 2 is no longer required and is superceded by this submittal.

Sincerely,

R. P. Powers
Vice President

/jmc

c: J. A. Abramson
J. L. Caldwell
MDEQ - DW & RPD
NRC Resident Inspector
J. R. Sampson