ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:8906300219 DOC.DATE: 89/06/22 NOTARIZED: NO DOCKET #
FACIL:50-244 Robert Emmet Ginna Nuclear Plant, Unit 1, Rochester G 05000244
AUTH.NAME AUTHOR AFFILIATION
MECREDY,R.C. Rochester Gas & Electric Corp.
RECIP.NAME RECIPIENT AFFILIATION
JOHNSON,A.R. Project Directorate I-3

SUBJECT: Responds to NRC Bulletin 88-008 re thermal stresses in piping connected to RCS.

DISTRIBUTION CODE: IE16D COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 3
TITLE: Bulletin Response 88-08 - Thermal Stress in Piping to RCS.

NOTES:License Exp date in accordance with 10CFR2,2.109(9/19/72). 05000244

	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL
	PD1-3 LA	1	0	PD1-3 PD	1	1
	JOHNSON,A	1	1			
INTERNAL:	AEOD/DOA	1	1	AEOD/DSP/TPAB	1	1
	NRR HARTZMAN,M	1	1	NRR HUM,M	1	1
	NRR REEVES,E.A.	1	1	NRR/DEST/ADE 8H	1	1
	NRR/DEST/ADS 7E	1	1	NRR/DEST/MEB 9H	1	1
	NRR/DOEA/EAB 11	1	1	NRR/DOEA/GCB 11	1	1
	NRR/DREP/EPB 10	1	1	NRR/PMAS/ILRB12	1	1
	NUDOCS-ABSTRACT	1	1	REG FILE 02	1	1
	RES/DSIR/EIB	1	1	RGN1 FILE 01	1	1
EXTERNAL:	LPDR	1	1	NRC PDR	1	1
	NSIC	1	1			

Cont No
$340956980

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK, ROOM P1-37 (EXT. 20079) TO ELIMINATE YOUR NAME FROM DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

TOTAL NUMBER OF COPIES REQUIRED: LTTR 22 ENCL 21

A/D-1 encl

RIDS/ADDS

RIDS/ADDS

ROCHESTER GAS AND ELECTRIC CORPORATION • 89 EAST AVENUE, ROCHESTER, N.Y. 14649-0001

TELEPHONE
AREA CODE 716 546-2700

June 22, 1989

U.S. Nuclear Regulatory Commission
Document Control Desk
Attn: Allen R. Johnson
Project Directorate I-3
Washington, D.C. 20555

Subject: Response to Bulletin 88-08
Thermal Stresses in Piping Connected to Reactor Coolant Systems, dated June 22, 1988
R.E. Ginna Nuclear Power Plant
Docket No. 50-244

Dear Mr. Johnson:

In response to the requirements of NRC Bulletin 88-08, the following information is provided.

NRC Request

1. Review systems connected to the RCS to determine whether unisolable sections of piping connected to the RCS can be subjected to stresses from temperature stratification or temperature oscillations that could be induced by leaking valves and that were not evaluated in the design analysis of the piping. For those addressees who determine that there are no unisolable sections of piping that can be subjected to such stresses, no additional actions are requested except for the report required below.

Response

1. As described in the September 28, 1988 letter from Robert C. Mecredy to Carl Stahle, systems attached to the RCS have been reviewed and unisolable sections of piping which might be subject to adverse thermal conditions have been identified.

Cert No. P34 0956950

IE16
1/1

NRC Request

2. For any unisolable sections of piping connected to the RCS that may have been subjected to excessive thermal stresses, examine nondestructively the welds, heat-affected zones and high stress locations, including geometric discontinuities, in that piping to provide assurance that there are no existing flaws.

Response

2. Three unisolable sections of piping connected to the RCS were previously determined to have the potential for thermal cycling. These sections are:

   i. charging system to Loop B hot leg between check valve 393 and the RCS nozzle,

   ii. alternate charging system to Loop A cold leg between check valve 383A and the RCS nozzle, and

   iii. auxiliary pressurizer spray system between check valve 297 and the three inch tee which connects the auxiliary pressurizer spray to the main pressurizer spray line.

   The inspection locations for nondestructive examination to provide assurance that there are no existing flaws were selected based on the following factors:

   - pipe geometry,
   - temperature difference between the pipe metal and the reactor coolant,
   - possible existence of valve leakage, and
   - industry pipe crack experience.

   Examinations were performed at the most susceptible locations, as recommended by Westinghouse, on each of the three unisolable pipe sections. All examination results were acceptable.

NRC Request

3. Plan and implement a program to provide continuing assurance that unisolable sections of all piping connected to the RCS will not be subjected to combined cyclic and static thermal and other stresses that could cause fatigue during the remaining life of the unit. This assurance may be provided (1) redesigning and modifying these sections of piping to withstand combined stresses caused by various loads including temporal and spatial distributions of temperature resulting from leakage across valve seats, (2) instrumenting this piping to detect adverse temperature distributions and establishing appropriate limits on temperature distributions, (3) providing means for ensuring that pressure upstream from block valves which might leak is monitored and does not exceed RCS pressure.

Response

3. A program to provide continuing assurance that the identified unisolable sections of piping attached to the RCS do not fail, due to thermally initiated or advanced fatigue, has been initiated. This assurance is provided in part, by instrumenting the affected piping to detect adverse temperature conditions. Appropriate guidelines have been developed to establish acceptance criteria for observed temperature distributions.

In addition to the temperature monitoring, the affected piping will be subject to repeat nondestructive examinations during future refueling outages.

It is currently planned to provide the existing temperature monitoring at least until the 1990 refueling outage at which time nondestructive examinations will be repeated. Based on the results of the temperature monitoring, nondestructive examinations and engineering analysis; the program may be restructured as necessary to provide continued assurance based on meaningful results.

Very truly yours,

Robert C. Mecredy
General Manager
Nuclear Production

MPL\050

xc: U.S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406

Ginna Senior Resident Inspector