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REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 5002260529 DOC. DATE: 90/02/15 NOTARIZED: NO DOCKET #
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 AUTH. NAME AUTHOR AFFILIATION
 MECREDY, R.C. Rochester Gas & Electric Corp.
 RECIP. NAME RECIPIENT AFFILIATION
 JOHNSON, A.R. Project Directorate I-3

SUBJECT: Provides changes necessary to continue testing & maintain proper administrative controls.

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



February 15, 1990

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

Subject: Inservice Testing Program Status and Relief Request
R.E. Ginna Nuclear Power Plant
Docket No. 50-244

Dear Mr. Johnson:

RG&E is continually upgrading the Inservice Test Program based on test experience, plant modifications and program administration. Most of the changes to date have been addition of test requirements or typographical changes with no impact on testing. These are listed in A) below. All of these changes are in compliance with the guidance established in Generic Letter 89-04. However, one set of changes does require relief from the expected test frequency. This set of changes affects the SI accumulator discharge check valves labeled 842 A&B and 867 A&B.

The RG&E Quality Assurance Manual Appendix "C" reflects all of these changes with the exception of 842 A&B and 867 A&B. Changes affecting these four valves will be incorporated pending approval of the relief request pertaining to test frequency.

A) CHANGES NECESSARY TO CONTINUE TESTING AND MAINTAIN PROPER ADMINISTRATIVE CONTROLS

1) Addition of Valves, Notes, or Test Requirements

| Valve | Changes |
|------------|---|
| 697A/B | Added new valves to program, CS-30, VR-20 |
| 853A/B | Added Event V PIV to remarks |
| 857C | Added Ex, ST-0 tests |
| 1811A/B | Added "no test required" to remarks |
| 4622A | Added valve to program, revised CS-4 |
| 4739B | Added valve to program, revised CS-4 |
| 9634B | Added valve to program, revised CS-4 |
| 862A/B | Added VR-24 for CV-O |
| 867A/B | Added Event V PIV to remarks |
| 877A/B | Added Event V PIV to remarks |
| 878A/C | Added PIV to remarks |
| 878F/G/H/J | Added Event V to remarks |
| 732A/B | Changed CV-O-Q to CV-O-CS, added CS-31 |

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2) Typographical Corrections

| <u>Valve</u> | <u>Changes</u> |
|--------------|------------------------------|
| 891A/B/C | Changed size to 1.5" |
| 200A/B, 202 | Changed Safety Class to 1 |
| 270A/B, 386 | Changed Safety Class to 1 |
| 9315 | Changed from Cat "AC" to "C" |

3) Specific NRC Generic Letter 89-04

| <u>Valve</u> | <u>Changes</u> |
|--------------|--|
| 9627A/B | Added CV-P requirement after disassembly |
| 4601-4604 | Added CV-P requirement after disassembly |

4) Modifications

Added PR-8 for RHR pump testing for full ASME test at cold shutdown.

| <u>Valve</u> | <u>Changes</u> |
|--------------|--|
| 710A/B | Changed CV-C from Q to CS due to modification, added CS-32 |

5) Resolution of Action Items

| <u>Valve</u> | <u>Changes</u> |
|--------------|---|
| 5941A | Changed CV-C frequency to R, added VR-25 for sample disassembly |
| 5942A | Changed CV-C frequency to R, added VR-25 for sample disassembly |

6) Changes as a Result of Test Implementation

| <u>Valve</u> | <u>Changes</u> |
|--------------|---|
| 4023 | Added CV-P-Q, Changed CV-O to CV-O-R via disassembly, incorporated in VR-23 |
| 854 | Deleted CV-P-Q, incorporated in VR-4 |
| 8655 | Changed CV-O to R via disassembly and added CV-P-Q |

B) CHANGES PENDING NRC CONCURRENCE WITH RELIEF

- 1) The safety injection accumulator discharge check valves and injection flow path (842 A&B and 867 A&B) were disassembled and inspected during the 1989 Refueling Outage. No evidence of unusual wear, free play, or valve damage was observed. A maintenance history review was performed encompassing the previous ten years. No evidence of any corrective maintenance activity was found. This is indicative of satisfactory valve performance and service to date. Additionally, the first ten year interval history was also reviewed. Even though no evidence of damage, failure, or activity requiring corrective maintenance could be found from the first ten year cycle, documentation requirements of that time period were not as comprehensive as current ones, and thus the basis for extending the test frequency is the detailed review results from the second ten year interval.

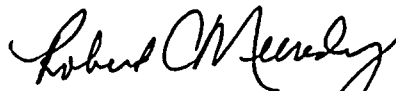
The industry as a whole has not been able to determine an acceptable means to full-flow test these particular valves. Obtaining actual operational differential pressures is not achievable during plant test conditions. Additionally, the actual or potential occurrences of a malfunction during testing can lead to consequences which are unacceptable when compared to the component operability information obtained. Examples of such malfunctions include but are not limited to: 1) Nitrogen binding of RHR pumps, 2) flooding and resultant radiological contamination when the test is conducted with the reactor vessel head removed. Numerous other problems have been encountered with testing or with attempted correlation of test results to design conditions. These issues are not unique to Ginna Station.

Additionally, the value of valve disassembly each outage is questionable based upon the performance history of these valves. No indication of excessive degradation or wear has been evident over the previous ten year operating history. The cost in terms of man-rem exposure is high. The 1989 actual inspection and refurbishment resulted in a personnel radiation exposure in excess of 3 person-rem. A defueling would require an additional 2.2 person-rem. Potential valve damage or mishap during reassembly could occur, and there is no means to full-flow test these valves following this completed maintenance. Finally, the plant would have to be maintained in an unusual condition (freeze plugs) or the core would have to be off-loaded, which requires additional time, exposure, and potential for adverse fuel handling incidents.

Since the valves have been shown to be in good condition with the level of maintenance performed to date, and the completion of annual disassembly of two valves every year has the aforementioned negative consequences, RG&E requests the following relief:

Perform disassembly of all four valves (842 A&B and 867 A&B) once every ten year cycle, with partial flow testing continued on a quarterly or annual basis, respectively. The relief request for your concurrence is attached. For supporting maintenance history, contact George J. Wrobel, Manager, Nuclear Safety and Licensing at (716) 724-8070.

Very truly yours,



Robert C. Mecredy
Division Manager
Nuclear Production

xc: Mr. Allen R. Johnson (Mail Stop 14D1)
Project Directorate I-3
Washington, D.C. 20555

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

Ginna Senior Resident Inspector

SYSTEM: Safety Injection

VALVES: 867A, 867B

CATEGORY: A/C

SAFETY CLASS: 1

FUNCTION: These valves open to provide a flowpath from the Safety Injection (SI) Accumulators or SI Pumps to the Reactor Coolant System (RCS) cold legs.

TEST REQUIREMENT: Check valves shall be exercised at least once every three months except as provided by IWV-3522 (IWV-3521).

BASIS FOR RELIEF: Full-stroke or part-stroke exercising during normal power operation cannot be accomplished since system pressures required to perform the test are not enough to overcome RCS pressure. Full-stroke exercising during Cold Shutdown requires injection into the RCS, which could cause low temperature overpressurization of the RCS, nitrogen binding of the RHR pumps, or flooding/radiological contamination if the test is conducted with the reactor vessel head removed. Also, additional radiological exposure (3-5 person-rem) would result and the plant would have to be maintained in an unusual condition. Use of freeze-plugs or core offloading (with consequential additional radiological exposure and increase in potential fuel handling incidents) would be required.

Partial-flow exercising is accomplished each refueling by actual SI flow into the RCS. Maintenance history and valve disassembly and inspection have shown these valves to exhibit no evidence of excessive degradation.

ALTERNATE TESTING: Disassembly of both valves once every ten year cycle. Each valve shall be disassembled as determined by scheduling and plant conditions. If a valve fails, the remaining valve will be disassembled and inspected for operability at that same time.

Prepared By: K. Muller
IST Engineer

2/14/90
Date

Reviewed By: George W. Sobel
Nuclear Safety and Licensing

2-14-90
Date

Approved By: Eugene K. Jovi
Manager, Mechanical Engineering

2/14/90
Date

SYSTEM: Safety Injection

VALVES: 842A, 842B

CATEGORY: A/C

SAFETY CLASS: 1

FUNCTION: These valves open to provide flow from Safety Injection (SI) Accumulators to the Reactor Coolant System (RCS).

TEST REQUIREMENT: Check valves shall be exercised at least once every three months except as provided by IWV-3522 (IWV-3521).

BASIS FOR RELIEF: Full-stroke open and close exercising during normal power operation cannot be accomplished as system pressures required to perform the test are not enough to overcome RCS pressure. Full-stroke exercising during Cold Shutdown requires injection into the RCS which could result in low temperature overpressurization of the RCS, nitrogen binding of the RHR pumps, or flooding/radiological contamination if the test is conducted with the reactor vessel head removed. Also, additional radiological exposure (3-5 person-rem) would result and the plant would have to be maintained in an unusual condition. Use of freeze-plugs or core offloading (with consequential additional radiological exposure and increase in potential fuel handling incidents) would be required.

Partial-stroke exercising is performed quarterly using the SI test header. Maintenance history and valve disassembly and inspection have shown these valves to exhibit no evidence of excessive degradation.

ALTERNATE TESTING: Disassembly of both valves once every ten year cycle. Each valve shall be disassembled as determined by scheduling and plant conditions. If a valve fails, the remaining valve will be disassembled and inspected for operability at that same time.

Prepared By: K. A. Miller
IST Engineer

2/14/90
Date

Reviewed By: Bernard Weber
Nuclear Safety and Licensing

2-14-90
Date

Approved By: Eugene K. Gori
Manager, Mechanical Engineering

2/14/90
Date

