ROCHESTER GAS AND ELECTRIC CORPORATION • 89 EAST AVENUE, ROCHESTER, N.Y. 14649-0001 AREA CODE 716 546-2700

ROBERT C. MECREDY
Vice President
Nuclear Operations

January 13, 1997

Mr. James Lieberman, Director
Office of Enforcement
U.S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Rockville, MD 20852-2738

Subject: Reply to a Notice of Violation
Imposition of Civil Penalty - $100,000
(NRC Inspection Report 50-244/96-08)
R.E. Ginna Nuclear Power Plant
Docket No. 50-244

Dear Mr. Lieberman:

Rochester Gas and Electric (RG&E) provides this reply within 30 days of the date of the letter which transmitted the Notice of Violation. Within the Notice of Violation, it was also required that the civil penalty be paid in the same time period as this response letter. An electronic transfer payable to the Treasurer of the United States was made on Monday, January 13, 1997.

In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the violations, and our responses, are provided in the attachment. RG&E agrees that the violations did occur as stated. As noted in the attached responses, we believe that the prompt comprehensive corrective actions taken in response to the violations ensure that all MOVs in our program are fully functional. Further, the corrective actions taken in terms of organizational responsibility and documentation requirements will ensure that this functionality is maintained in the implementation of our "living program."

RG&E has also taken actions to ensure that opportunities to identify existing problems are promptly recognized so that appropriate corrective actions are taken. We have deliberately lowered the threshold for reporting of potential deficiencies (our ACTION reporting system) to capture and trend emerging issues. We are in the process of modifying our Commitment and Action Tracking System to explicitly identify commitments and responsibilities, such that internally and externally identified issues are properly reviewed and dispositioned. Finally, we have counseled our Engineering personnel on the importance of ensuring design margins rather than refining analytical techniques.

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We would be happy to discuss any aspect of our response should you so desire.

Very truly yours,

Robert C. Mecredy

GJW/450

Subscribed and sworn to before me
on this 13th day of January, 1997.

Deborah A. Piperni
Notary Public

DEBORAH A.PIPERNI
Notary Public in the State of New York
ONTARIO COUNTY
Commission Expires Nov. 23, 1997

xc: U.S. Nuclear Regulatory Commission
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475 Allendale Road
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Ginna NRC Senior Resident Inspector

ATTACHMENT

Statement of Violation A:

10CFR Part 50, Appendix B, Criterion III, "Design Control," requires, in part, that measures shall be established to assure that applicable regulatory requirements and design basis are correctly translated into specifications, drawings, procedures, and instructions, and shall provide for verifying and checking the adequacy of design, such as by the performance of design reviews, by alternate or simplified calculational methods, or by performance of a suitable testing program.

RG&E Engineering Procedure 3-P-121, Design Criteria, Revision 0, dated November 2, 1994, states, in part, in Section 3.2, that "...design inputs shall be specified and approved on a timely basis and to the level of detail necessary to permit the design activity to be carried out in a correct manner and to provide a consistent basis for making design decisions, accomplishing design verification measures, and evaluating design changes."

Contrary to the above, from June 28, 1995 (the date by which that the licensee committed to complete its Generic Letter 89-10 program), until August 3, 1996, design inputs for the Residual Heat Removal (RHR) Core Deluge Motor Operated Valves (MOVs) 852A and 852B were not adequately specified and approved to the level of detail necessary to permit the design activity for these valves to be carried out in a correct manner, and to provide a consistent basis for making design decisions and accomplishing design verification measures. The thrust requirements for the RHR core deluge valves, used to evaluate the performance of the MOVs, were not adequately validated; specifically, an outdated and unjustified 0.3 valve factor was assumed. This valve factor was unjustified because it was lower than valve factors issued for similar MOVs at Ginna and in the industry. As a result, the licensee did not adequately assure that the valves would operate under design basis conditions.

Statement of Violation B:

10CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," requires that measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition. The identification of the significant condition adverse to quality, the cause of the condition, and the corrective action taken shall be documented and reported to appropriate levels of management.

Contrary to the above, prior to August 3, 1996, measures were not established to assure that certain conditions adverse to quality were promptly identified and corrected. Specifically,

1. During an NRC inspection in March-April 1995, prior to the licensee's completion of its Generic Letter 89-10 program, the NRC informed the licensee that the design inputs for core deluge valves 852A and 852B needed to be justified because the assumed valve factor of 0.3 was unusually low and had no recognized technical basis when compared to similar valves in the industry and at Ginna. Although the use of this valve factor constituted a significant condition adverse to quality, the licensee had not taken measures to assure, prior to the time of its shutdown of the reactor in August 1996, that the 0.3 valve factor accurately predicted performance of the valves.

2. When statically retesting the core deluge valves after maintenance during the Spring 1996 refuel outage, the licensee identified that the valves may not open when subject to degraded voltage, at 69% and 70% of nominal bus voltage respectively. Although the licensee had previously determined that the more limiting case (MOV 852A) would require 20,943 lbs. of thrust to open, assuming a valve factor of 0.30, the licensee estimated that MOV 852A would develop only 11,345 lbs. of thrust and documented these findings in its Action Reports (ARs) 96-0320 and 96-0338. However, despite this discrepancy, the licensee did not take appropriate corrective action; rather the licensee considered both RHR core deluge valves to be operable based on a single 1993 "stall test" performed on MOV 852A at 100% voltage. The stall test did not provide adequate assurance that the RHR core deluge valves could perform their safety function.

Response to Violations A & B:

1. RG&E agrees that the violations occurred as stated.

2. The reasons for the violations were that RG&E employed inadequate design control methods, caused by inadequate resource allocations and lack of proper management oversight. RG&E performed an inadequate review of pertinent industry test information regarding motor operated valves (MOVs). Our review of industry tests which concluded that vendor-supplied valve factors may not be conservative incorrectly determined that the data did not generically apply to Ginna Station. Consequently, MOV program documents were not updated to reflect the use of more conservative valve factors when tested factors could not be obtained. Since MOVs 852A and B could not be dynamically tested, and were not grouped with any other valves, our program continued to use the vendor supplied valve factors. Independent verification of the calculation

assumptions was inadequate in that the verifier only checked that the assumed values were consistent with our program requirements, rather than assessing the appropriateness of the assumption.

3. The corrective actions taken by RG&E were as follows:

   a. As described during the predecisional Enforcement Conference on November 13, 1996, RG&E contracted with highly-qualified organizations with recognized expertise in MOVs to provide an independent assessment both of the specific parameters for the qualification of all MOVs in our program, as well as the processes used to develop and maintain our MOV program. As a result of this assessment, parameters involving the design basis operation of MOVs in the program have been recalculated, and all valves have been determined to be operable. This review included use of EPRI bounding valve factors, mean seat diameters, effects of flow velocity, and the ComEd Pressure Locking calculational methodology.

   b. Changes have been made both in the implementation of processes used to perform design verifications, as well as the organizational responsibilities for the MOV program. Both the MOV Program Engineer and the Equipment Diagnostic Coordinator now report to the same manager. Contract help has also been established, such that sufficient resources are provided to baseline the MOV program. This reorganization has resulted in a smoother relationship between the Engineering and testing aspects of the MOVs. The additional resource allocation has also provided RG&E with a delineation of the qualification parameters of the MOVs in the program.

   c. The corrective action regarding management oversight has been a reemphasis on the level of design verification reviews, as well as the reestablishment of our active participation in industry forums. We are currently participating in the industry effort regarding periodic verification for MOV operability. We have also taken steps to ensure that multiple individuals participate in industry exchanges of MOV information.

4. The corrective steps that will be taken to avoid further violations will be the development of a means to ensure that a living MOV program is established and maintained. Several enhancements to the MOV programs are being developed. These include the formation of an integrated database of all parameters influencing MOV operability, inclusion of trending into the program, development of a periodic verification program, continued broadening of our participation in industry forums, improvements in our commitment management system to

ensure commitments are identified to a sufficient level of detail to provide an effective tool, and the performance of QA assessments, including the use of technical experts as appropriate, to periodically verify the acceptable status of the program. RG&E is also committed to performing a self-assessment of our design verification process by the end of the fourth quarter of 1997. Additional training will be provided based on its result.

5. Full compliance with the establishment of the current operability of all MOVs in our program was achieved on November 12, 1996, when the calculations which independently verified the operability of all MOVs were completed.

Assignment of adequate resources and increased management oversight to maintain the MOV Program has been achieved as the result of our Engineering Department reorganization. Maintenance of the "living program" will be further enhanced by the publication of the comprehensive MOV Program Manual, currently scheduled for June 1997.

Implementation of the proposed enhancements to the MOV program are currently scheduled to be completed with a full QA audit of the program in June, 1997.