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JOHNSON,A.R. Project Directorate I-3

SUBJECT: Responds to GL 87-02,Suppl 1, "SQUG Resolution of USI A-46" & Suppl 4 to GL 88-20 re seismic events.Seismic evaluation rept,summarizing results of A-46 program,will be submitted by 950522.

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September 21, 1992

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

Subject: Response to Generic Letter 87-02, Supplement 1 (SQUG Resolution of USI A-46) and Generic Letter 88-20, Supplement 4 (Seismic Events)
R. E. Ginna Nuclear Power Plant
Docket No. 50-244

Reference: (a) Letter from R.C. Mecredy, RG&E, to A.R. Johnson, NRC, Subject: Individual Plant Examination of External Events (IPEEE) 180-Day Response to Generic Letter 88-20, Supplement 4, dated December 26, 1991.

(b) Letter from A.R. Johnson, NRC, to R.C Mecredy, RG&E, Subject: Review of Response to Generic Letter No. 88-20, Supplement No. 4 - Individual Plant Examinations for External Events - R.E. Ginna Nuclear Power Plant (TAC No. M83624), dated June 30, 1992.

Dear Mr. Johnson:

On February 19, 1987, the Nuclear Regulatory Commission (NRC) issued Generic Letter 87-02, "Verification of Seismic Adequacy of Mechanical and Electrical Equipment in Operating Reactors, Unresolved Safety Issue (USI) A-46." This Generic Letter encouraged utilities to participate in a generic program to resolve the seismic verification issues associated with USI A-46. As a result, the Seismic Qualification Utility Group (SQUG) developed the "Generic Implementation Procedure (GIP) for Seismic Verification of Nuclear Plant Equipment." On May 22, 1992, the NRC Staff issued Generic Letter 87-02, Supplement 1, which constituted the NRC Staff's review of the GIP and which included Supplemental Safety Evaluation Report Number 2 (SSER-2) on the GIP, Revision 2, as corrected on February 14, 1992. The letter to SQUG enclosing SSER-2 requested that SQUG member utilities provide to the NRC, within 120 days, a schedule for implementing the GIP. By letter dated August 21, 1992, to James G. Partlow, NRR-NRC, SQUG clarified that the 120 days would expire on September 21, 1992. This letter responds to the Staff's request.

In addition, this letter addresses the NRC's review of RG&E's response to Generic Letter 88-20, Supplement 4 (Individual Plant Examinations for External Events or IPEEE) with respect to seismic events (References a and b). The NRC's questions and comments related to the remaining IPEEE issues will be provided by RG&E under separate cover.

Generic Letter 87-02, Supplement 1

As a member of SQUG, Rochester Gas and Electric (RG&E) commits to use the SQUG methodology as documented in the GIP, where "GIP" refers to GIP Revision 2, corrected February 14, 1992, to resolve USI A-46 at R. E. Ginna Nuclear Power Station. Specifically, RG&E commits to the SQUG commitments set forth in the GIP in their entirety, including the clarifications, interpretations, and exceptions identified in SSER-2 as clarified by the August 21, 1992 SQUG letter responding to SSER-2. For the remaining non-commitment sections of the GIP (i.e., GIP implementation guidance), RG&E expects to, in general, follow the suggested methods for implementing the applicable commitments. RG&E will notify the NRC as soon as practicable, but no later than the final USI A-46 summary report, of any significant or programmatic deviations from the guidance portions of the GIP. Justifications for such deviations, as well as for other, minor deviations, will be retained on site for NRC review.

Since Ginna is identified as a Category 2 (SEP) plant in Generic Letter 87-02, Supplement 1, RG&E will use the options provided in the GIP for defining seismic demand (i.e, appropriate median-centered and conservative, design in-structure response spectra, depending on the building, the location of equipment in the building, and equipment characteristics).

Given the magnitude of the effort required to achieve resolution of USI A-46, final implementation must be carefully integrated with outage schedules and the seismic IPEEE program (as discussed below). Considering the workload set forth by the criteria of the GIP, a Seismic Evaluation Report summarizing the results of the A-46 program for the R. E. Ginna Nuclear Power Station will be submitted to the NRC by May 22, 1995. RG&E is currently evaluating proposed bids for supporting the A-46 program at Ginna and expects to begin work in the near future. However, the completion schedule may be affected by coordination with the seismic IPEEE response.

RG&E also intends to change the licensing basis methodology used for verifying the seismic adequacy of new and replacement, as well as existing, electrical and mechanical equipment prior to receipt of a final plant-specific SER resolving USI A-46. This change will be conducted under 10CFR50.59 and will be consistent with the guidance in Section 2.3.3 of Part I of the GIP, Revision 2, and with the clarifications, interpretations, and exceptions identified in SSER-2 as clarified by the August 21, 1992 SQUG letter responding to SSER-2. Any necessary changes to the UFSAR will be provided in accordance with 10CFR50.71(e).

Generic Letter 88-20, Supplement 4 (Seismic)

The NRC's review of RG&E's response to Generic Letter 88-20, Supplement 4 (Reference b) stated that it was unacceptable to rely strictly on efforts related to the Systematic Evaluation Program (SEP) for responding to the IPEEE. Since the seismic portion of the IPEEE is closely related to the resolution of A-46, RG&E would like to address the NRC's concerns at this time.

First, RG&E would like to re-emphasize the significant effort and expenditures which it incurred as a result of the SEP in the area of seismic design. Safety-related piping systems were reanalyzed and modified to Regulatory Guide 1.60/1.61 criteria, electrical equipment anchorage was improved, and structures were evaluated to NUREG-0800 load combinations. As noted in Reference a, RG&E estimates that it has expended almost $50 million as a result of reviewing and upgrading Ginna Station to this upgraded criteria. In addition, RG&E would like to also note that the NRC determined during the SEP that a 0.17g anchorage criteria was acceptable for a safe shutdown earthquake; however, RG&E continues to use the more conservative original licensing basis of 0.2g for safety-related equipment. As such, RG&E already ensures additional seismic margin over a NRC accepted anchorage criteria.

Second, RG&E plans to include essentially all safety-related equipment within the A-46 program since it is anticipated that the licensing basis methodology used for Ginna will be changed as discussed above. Consequently, systems expected to be needed for the seismic IPEEE such as containment isolation and containment spray will already be included within the A-46 program and seismically verified to 0.2g. This also includes necessary relays.

Based on this, RG&E proposes to add components such as structures and piping to the SQUG walkdowns using the guidelines presented in EPRI NP-6041-SL, Revision 1, such that the A-46 program will include all components that are required for the seismic IPEEE review. RG&E notes that NUREG-1407 states that the walkdowns are "one of the most important ingredients to a seismic IPEEE". Since this "expanded" A-46 program will verify the seismic adequacy to 0.2g of all equipment expected to be identified within the IPEEE program, RG&E proposes to identify a single safe shutdown train that can be used following a 0.3g seismic event (IPEEE focused scope earthquake). This is considered appropriate since the 0.3g seismic event is beyond the current design basis for Ginna, and therefore, single failure criteria should not apply. This approach is consistent with the resolution of Station Blackout (10CFR50.63) and Anticipated Transients Without Scram (10CFR50.62). In addition, since the safe shutdown path is expected to consist mainly of safety-related components, the Ginna Technical Specifications would prevent extended outage times for the identified equipment. In the event that a single safe shutdown train cannot be identified, a cost/benefit evaluation will be performed in accordance with 10CFR50.109 for any potential changes.

Finally, RG&E will address the issue of seismically induced fires and floods within the models developed for the IPE. RG&E believes that the proposed approach meets the intent of the severe accident policy statement for seismic issues. This "expanded" scope A-46 program would be performed concurrent with the required program, and as such, would also be completed by May 22, 1995. Since this approach is extensively dependent upon the Ginna A-46 program, RG&E desires to obtain prompt NRC response to this approach in order to prevent undesirable delays in beginning the A-46 program later this year as is currently scheduled.

RG&E would like to note that even though IPEEE does look beyond the design basis for Ginna, we will nevertheless attempt to conform to the program as described above. If as a result of future circumstances it is determined that a shift in resources is warranted, both the scope and schedule for any IPEEE commitments may be modified. We will keep the NRC informed of any such decisions.

Very truly yours,

Robert C. Mecredy

Robert C. Mecredy

Subscribed and sworn to before me
on this 21st day of September, 1992

Marie C. Villeneuve

Notary Public

MARIE C. VILLENEUVE
Notary Public, State of New York
Monroe County
Commission Expires October 31, 19[illegible]

MDF/DWZ/457

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