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September 21, 1992
 C311-92-2119

U. S. Nuclear Regulatory Commission
 Attention: Document Control Desk
 Washington, DC 20555

Gentlemen:

Subject: Three Mile Island Nuclear Generating Station (TMI-1)
 Operating License No. DPR-50
 Docket No. 50-289
 Response to Supplement 1 to Generic Letter 87-02
 SQUG Resolution of USI A-46

On February 10, 1987, the 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, corrected on February 14, 1992. The letter to SQUG enclosing SSER-2 requests that SQUG member utilities provide to the NRC, within 120 days, the following information. 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.

NRC REQUEST:

A statement whether you commit to use both the SQUG commitments and the implementation guidance provided in GIP-2 as supplemented by the SSER No. 2 for the resolution of USI A-46. In this case, any deviation from GIP-2, as supplemented by the SSER No. 2, must be identified, justified, and documented. If you do not make such a commitment, you must provide your alternative for responding to GL 87-02.

GPU NUCLEAR RESPONSE:

As a member of SQUG, GPU Nuclear commits to use the SQUG methodology as documented in the GIP, where "GIP" refers to GIP Revision 2, corrected on February 14, 1992, to resolve USI A-46 at TMI-1. The GIP, as evaluated by the Staff, permits licensees to deviate from the SQUG commitments embodied in the

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Commitment sections, provided the Staff is notified of substantial deviations prior to implementation. GPU Nuclear recognizes that the Staff's position in SSER-2 "is that if licensees use other methods that deviate from the criteria and procedures as described in SQUG commitments and in the implementation guidance of the GIP, Rev. 2, without prior NRC staff approval, the method may not be acceptable to the staff and, therefore, may result in a deviation from the provisions of" Generic Letter 87-02.

Specifically, GPU Nuclear hereby commits to the SQUG commitments set forth in the GIP, including the clarifications, interpretations, and exceptions identified in SSER-2 as clarified by the August 21, 1992, SQUG letter responding to SSER-2 with the following clarification.

Verification of the Rigid Base Plate

The SSER No. 2 states that the rigid baseplate assumption should be verified prior to using the ANCHOR code (Ref. SSER No. 2 - Section II.4.4 No. 9). We have contacted the program's author, Stevenson & Associates, and they assert that the ANCHOR code is not formulated using a rigid baseplate assumption. We were informed by Stevenson & Associates that EPRI/SQUG is transmitting this information generically.

With respect to the GIP implementation guidance, GPU Nuclear generally will be guided by the remaining (non-commitment) sections of the GIP, i.e., GIP implementation guidance, which comprises suggested methods for implementing the applicable commitments. GPU Nuclear will notify the NRC as soon as practicable, but no later than the final USI A-46 summary report, of significant or programmatic deviations from the guidance portions of the GIP, if any. Justifications for such deviations, as well as for other minor deviations, will be retained on site for NRC review.

NRC REQUEST:

A plant-specific schedule for the implementation of the GIP and submission of a report to the staff that summarizes the results of the USI A-46 review, if you are committing to implement GIP-2. This schedule shall be such that each affected plant will complete its implementation and submit the summary report within 3 years after the issuance of the SSER No. 2, unless otherwise justified.

GPU NUCLEAR RESPONSE:

Our evaluation of overall Integrated Schedule activities and assessment of the status of the USI A-46 and IPEEE efforts for TMI-1 and Oyster Creek Nuclear Generating Station has indicated that sufficient resources are available and can be allocated to support completion and submittal of the results of the TMI-1 USI A-46 review by May 22, 1995, within three (3) years after the issuance of the SSER No. 2.

NRC REQUEST:

The detailed information as to what procedures and criteria were used to generate the in-structure response spectra to be used for USI A-46 as requested in the SSER No. 2. The licensee's in-structure response spectra are considered acceptable for USI A-46 unless the staff indicates otherwise during a 60-day review period.

CPU NUCLEAR RESPONSE

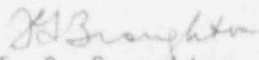
For defining seismic demand, GPU Nuclear will use the options provided in the GIP for median-centered and conservative design in-structure response spectra, as appropriate, depending on the building, the location of equipment in the building and characteristics of the specific piece of equipment. When the most appropriate option involves the use of SSE in-structure response spectra, GPU Nuclear intends to use either of the alternatives described below:

1. The licensing basis SSE response spectra as described in Sections 5.2.4 and 5.4.4 of the Three Mile Island Unit 1 FSAR. These spectra were developed using the method developed by Biggs and Roesset as described in Reference 1. The ground response spectra used as input to the analysis was a composite of records from the March 1957 San Francisco earthquake and the 1940 El Centro earthquake and was anchored at 0.12g for SSE. Details of the methodology used to develop the ground response spectra are described in Sections 2.7.1 and 2.8 of the Three Mile Island Unit 1 FSAR.
2. New in-structure response spectra to be developed, as discussed in Section 4.2.4 of the GIP, for use in the resolution of USI A-46. These spectra will be developed consistent with standards and guidance given in the NRC's Standard Review Plan. The detailed procedures and criteria to be used to generate the spectra will be submitted to the Commission when they become available as required in Section II, 4.2.3 of the Staff's SSER. Pending timely completion of the Staff's review of the new spectra, GPU Nuclear still plans to complete resolution of USI A-46 in accordance with the schedule provided in this letter.

GPU Nuclear considers both of the spectra described above to be conservative design response spectra as defined on Page 4-18 of the GIP-2.

If you have any questions concerning the information provided in this letter, please call Mike Laggart, Manager, Corporate Licensing, at (201) 316-7968.

Sincerely,


T. G. Broughton
Vice President and Director, TMI-1

YN:lga

Attachment

cc: Region I Administrator
TMI Senior Resident Inspector
TMI-1 Senior Project Manager

ATTACHMENT

REFERENCE:

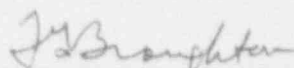
1. J. M. Biggs and J. M. Roesset, "Seismic Analysis of Equipment Mounted on a Massive Structure", Seminar on Seismic Design of Nuclear Power Plants, Massachusetts Institute of Technology.

METROPOLITAN EDISON COMPANY
JERSEY CENTRAL POWER AND LIGHT COMPANY
PENNSYLVANIA ELECTRIC COMPANY
GENERAL PUBLIC UTILITIES NUCLEAR CORPORATION

Three Mile Island Nuclear Station, Unit 1 (TMI-1)
Operating License No. DPR-50
Docket No. 50-289

Response to Generic Letter 87-02, Supplement 1
Seismic Qualification Utility Group (SQUG) Resolution of USI A-46

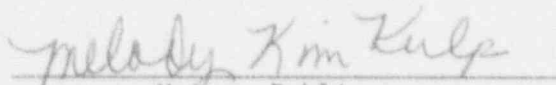
This letter is submitted in response to Supplement 1 to Generic Letter 87-02, Seismic Qualification Utility Group (SQUG) Resolution of USI A-46. All statements contained in this response have been reviewed, and all such statements made and matter set forth therein are true and correct to the best of my knowledge.



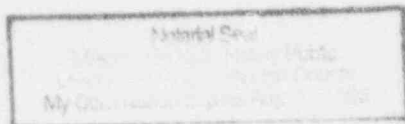
T. G. Broughton
Vice President and Director, TMI-1

Signed and sworn before me this

22nd day of September, 1992.



Notary Public



Member, Pennsylvania Association of Notaries