

March 17, 1994

Docket No. 50-219

Mr. John J. Barton
Vice President and Director
GPU Nuclear Corporation
Oyster Creek Nuclear Generating Station
Post Office Box 388
Forked River, New Jersey 08731

Dear Mr. Barton:

SUBJECT: OYSTER CREEK IN-STRUCTURE RESPONSE SPECTRA (TAC NO. M69467)

In your letter of December 23, 1993, you provided information regarding the Oyster Creek In-structure Response Spectra. You stated that these spectra were being developed to resolve Supplement 1 to Generic Letter (GL) 87-02, "SQUG Resolution of US1 A-46" dated September 14, 1992.

The staff has reviewed your information and has determined that additional information is required for us to complete our review. The information requested is presented in the enclosure.

The staff requests that you respond within 30 days of receipt of this letter. The short response is necessary for the staff to meet GPU Nuclear Corporation's requested schedule.

This requirement affects one respondent and, therefore, is not subject to Office of Management and Budget review under P. L. 96-511.

Sincerely,

Original signed by:

Alexander W. Dromerick, Sr. Project Manager
Project Directorate I-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

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PDR ADOCK 05000219
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Alexander W. Dromerick, Sr. Project Manager
Project Directorate I-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20565-0001

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Sincerely,

A handwritten signature in cursive script that reads "Alexander W. Dromerick".

Alexander W. Dromerick, Sr. Project Manager
Project Directorate I-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosure:
As stated

cc w/enclosure:
see next page

Mr. John J. Barton
Vice President and Director

Oyster Creek Nuclear
Generating Station

cc:

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Licensing Manager
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Mail Stop: Site Emergency Bldg.
Post Office Box 388
Forked River, New Jersey 08731

Enclosure

GPU Nuclear Corporation

Oyster Creek Nuclear Generating Station (OCNGS)

Docket No. 50-219

Request for Additional Information Regarding

In-structure Response Spectra

Reference:

Letter from R. Keaton (GPUN) to NRC, "In-structure Response Spectra" (Together with Reports from EQE and Weston Geophysical), Dated Dec. 23, 1993.

1. Provide the three sets of spectra (corresponding to the three high-strain soil profiles) developed at the foundation level together with the enveloping spectra and 60% of the site specific response spectra (SSRS). Also, provide modified synthetic time-histories (if any) developed to ensure that the 60% criterion is satisfied.
2. Structural Modelling:
 - a. At OCNGS, the spent fuel pool (SFP) load is distributed between the reactor building, the shield wall and the columns. Provide information related to the distribution of SFP mass and its eccentricity in the model shown in Fig. 4-1.
 - b. Provide a sample calculation which demonstrates the reasonability of the spring constants shown in Table 6 of Appendix A.
 - c. A number of floor slabs and walls at OCNGS have been identified as vertically flexible. Provide information related to the plans for developing vertical floor response spectra for these floors.
3. The staff recognizes the timing when the soil structure interaction (SSI)-sensitivity studies were performed (Section 5) and the final SSRS were approved and agrees with the licensee (and its consultant) that the use of the earlier SSRS will not significantly affect the results of the sensitivity studies. However, the staff believes that the 2-D model utilized for the sensitivity studies should have been modified to get better correspondence in the results of 2-D and 3-D (Figures 5-2, 5-3, 5-4). Provide justification for not modifying the 2-D model, particularly, when comparing rigid vs. flexible foundation responses.

4. Provide diskettes containing the following input-output information:
 - a. A set of final (modified) synthetic time-histories utilized in the development of in-structure response spectra (IRS), together with their response spectra and power spectral densities (PSDs) at the ground surface.
 - b. Soil and Structural model of the Reactor Building (RB) together with their parameters utilized in developing the IRS.
 - c. Horizontal and vertical spectra at El. 95 ft (\pm) in the RB and at 50 ft (\pm) in the Drywell (when available).

This information will be used by the staff in independently verifying the final IRS. However, the approval of the approach utilized in developing the IRS will not be contingent upon this verification.