



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

November 25, 1992

Docket
File

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 03731

Dear Mr. Barton:

SUBJECT: GPU NUCLEAR CORPORATION PROPOSAL TO REVISE NUREG-0619 REQUIREMENTS
REGARDING THE FEEDWATER NOZZLES AND CONTROL ROD DRIVE RETURN LINE
NOZZLE (TAC NO. M83157)

The staff has completed its review of the GPU Nuclear Corporation (GPUN), letter dated September 1, 1992, in which GPUN proposed to revise commitments and actions regarding the implementation of NUREG-0619 at the Oyster Creek Nuclear Generating Station (OCNGS). In the subject letter, GPUN made proposals regarding the upcoming 14R outage and plans for actions in the future. GPUN's letter was based on the assumption that the Siemens Nuclear Power Services (Siemens) would be able to demonstrate that their phased-array ultrasonic testing (UT) technique could reliably detect shallow thermal fatigue cracks in the two GPUN nozzle mockups.

The NRC staff conducted an audit at the Siemens facility, Chattanooga, Tennessee, on September 9, 1992, to determine the effectiveness of the phased-array technique. At the audit, the staff determined that some of the fatigue cracks in the GPUN mockups could not be detected with the instrument sensitivity (gain) used at OCNGS during the 12R and 13R outages. During future nozzle inspections, Siemens plans to modify their examination procedure to significantly increase the instruments sensitivity consistent with the mockup results. The staff concluded that GPUN has not demonstrated that the UT conducted in the past on the feedwater (FW) and control rod drive return line (CRDRL) nozzles could detect and size the flaws assumed by GPUN in their fracture mechanics analysis.

The staff has completed the enclosed safety evaluation (SE) that addresses GPUN's proposals that relate to the 14R outage. The staff will evaluate GPUN's proposals with generic implications as GPUN and industry progress in the implementation of ASME Section XI Appendix VIII for performance demonstrations. The primary conclusion of the SE is that GPUN must perform an examination of all four feedwater and the CRDRL nozzles during the 14R outage with the phased array technique pursuant to NUREG-0619 and GPUN's commitments. GPUN must analyze their inspection and laboratory data and provide the technical bases to demonstrate that the phased array UT examinations are capable of detecting defects that could grow to an unacceptable size prior to

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Mr. John J. Barton

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the next inspection. This information should be provided before the end of the 14R outage. The staff will provide a separate trip report describing our conclusions from the September 9, 1992 audit.

Sincerely,

Original signed
by

Alexander W. Dromerick, Senior Project Manager
Project Directorate I-4
Division of Reactor Projects - III
Office of Nuclear Reactor Regulation

Enclosure:
As stated

cc w/enclosure:
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