GPU Nuclear

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

Gentlemen:

Subject: Oyster Creek Nuclear Generating Station (OCNGS)
Docket No. 50-219
Control Rod Drive Return Line Nozzle (CRDR)
13R Inspection

Reference: NRC Letter 12/13/90
GPUN/NRC Telecon 1/24/91

During the recent telecon, we provided our comments to the Staff's evaluation of our NUREG 0619 inspections. Briefly, we stated that: (1) the feedwater nozzles were previously inspected in 12R; (2) the phased array UT process will only be qualified on fabricated notches; and (3) any nozzle indications will first be evaluated for continued operation before grindout and liquid penetrant (PT) examinations are performed. We also confirmed that a blind demonstration would be used for qualifying the UT phased array process for the 13R CRDR nozzle inspection. This demonstration would be performed on a full-size mock-up of the CRDR nozzle fabricated with EDM (Electrostatic Discharge Method) notches and internal cladding.

For the CRDR nozzle qualification, the accuracy of the UT process was assessed at specific notch depths, and a depth correction factor was determined for sizing. These factors were calculated by applying linear regression statistical analysis (95% confidence interval) to the data obtained during the blind demonstration. Based on these calculations, the largest crack that could escape UT detection within the vessel wall but away from the CRDR nozzle-to-shell blend radius was 0.132 inches with a depth correction factor of 0.04.

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Given the maximum crack depth (0.535 in.) allowed for structural integrity and the expected crack growth rate, an inspection interval can be established for the largest crack that could escape UT inspection. Likewise, for any detected cracks, an interval can be justified for continued operation before grindout and PT.

For the 13R CRDR nozzle inspections, we can now report no crack-like indications in the nozzle or the area directly below the nozzle. These facts eliminate the need for any repair activities as discussed previously.

In light of the favorable results from our NUREG 0619 inspections (feedwater and CRDR), we believe there is a technical basis to revise the inspection intervals for these nozzles. During Cycle 13, we will assemble the justification and propose extensions to the NUREG 0619 inspection intervals for Oyster Creek. If you have any further questions in the interim, please contact Mr. M. W. Laggart at (201) 316-7968.

Sincerely,

J. C. DeVine, Jr.
Vice President and Director
Technical Functions

DJ/plp

cc: Administrator, Region 1
Senior NRC Resident Inspector
Oyster Creek NRC Project Manager

DJ:C3212094