Dacket file 50-219



UNITED STATES NUCLEAR REGULATORY COMMISSION

September 25, 1995

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

SUBJECT: GPU NUCLEAR CORPORATION MATERIAL TESTING PROGRAM FOR HOT ROLLED XM-19 MATERIALS (TAC NO. M92531)

Dear Mr. Barton:

By letter dated June 7, 1995, GPU Nuclear Corporation (GPUN) submitted its augmented inservice inspection program for the tie rod assemblies that were installed in modification of the Oyster Creek Nuclear Generating Station (OCNGS) core shroud during the 15R refueling outage (RFO) for OCNGS. Included in GPUN's submittal was a proposed material testing program for hot-rolled XM-19 in simulated Boiling Water Reactor (BWR) environment. This program was submitted to the NRC in response to a condition placed in the staff's "Safety Evaluation Regarding the Oyster Creek Core Shroud Repair," dated November 25, 1994.

The staff has reviewed GPUN's proposed material testing program for XM-19 materials, and has determined that GPUN's proposed program is acceptable for use, provided that the following conditions are incorporated into GPUN's test program:

- Fabrication of test and control specimens of hot-rolled XM-19 should be done as to bound the degree of cold work in the fabricated hot-rolled XM-19 tie rod assembly components. This should include the method of fabricating the threads in the test and control specimens.
- The creviced conditions of the test and control specimens should duplicate as closely as possible the creviced conditions around the tie rod assembly hot-rolled XM-19 components.
- The staff recommends that control and test specimens be tested in an autočlave environment to simulate both the pressures and temperatures of the BWR operating environment at the Oyster Creek Nuclear Generating Station.
- The control specimens should include at least one sensitized XM-19 specimen from each heat of hot-rolled XM-19 to ensure that the testing conditions will produce IGSCC.

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5. GPUN should justify why chloride and sulfate impurities are not considered in the BWR testing environment.

9509270216 950925 PDR ADOCK 05000219 J. Barton

Enclosed is the staff's Safety Evaluation (SE) regarding GPUN's material test program for hot-rolled XM-19 materials.

The staff has not included its evaluation of GPUN's augmented inspection program for the tie rod assemblies in their SE, however. The staff will issue its SE regarding GPUN's proposed augmented inspection program once the staff has finalized its review of the Boiling Water Reactor Vessels Internals Project's (BWRVIP's) proposed guidelines for re-inspections of core shrouds and augmented inspections of core shroud repair assemblies. Therefore, issuance of this SE will only partially complete the staff's efforts in regard to TAC No. M92531.

Sincerely,

Original signed by:

Alexander W. Dromerick, Sr. Project Manager Project Directorate I-3 Division of Reactor Projects - I/II Office of Nuclear Reactor Regulation

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Enclosure: Safety Evaluation

cc w/encl: See next page

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J. Barton

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alixady W. Dimench

Alexander W. Dromerick, Sr. Project Manager Project Directorate I-3 Division of Reactor Projects - I/II Office of Nuclear Reactor Regulation

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cc w/encl: See next page

J. Barton GPU Nuclear Corporation

cc:

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Kent Tosch, Chief New Jersey Department of Environmental Protection Bureau of Nuclear Engineering CN 415 Trenton, NJ 08625 Oyster Creek Nuclear Generating Station