

**GPU Nuclear Corporation** 

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May 20, 1988

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

Dear Sir:

Subject: Oyster Creek Nuclear Generating Station

Docket No. 50-219

This letter is being written to inform the NRC of a change to the end point of the ten-year interval for ISI inspections as defined in ASME Section XI, and to request five changes to the existing code requirements.

As required by 10 CFR 50.55(a), the Oyster Creek Nuclear Generating Station has been performing inspections which satisfy the appropriate ASME criteria. The Oyster Creek plant is currently in its second ten-year interval.

With an increasing scope of inspection requirement sources, redundant inspections are being performed to comply with these diverse requirement documents. A significant number of these inspections must be performed in radiation areas resulting in unnecessary radiation exposures to inspectors. An evaluation of requisite inspection criteria and documented results has revealed that a reduction in total man-rem can be achieved by utilizing the data collected in one inspection to satisfy multiple recordkeeping requirements. The specific details of these inspections are included as request nos. 1 and 2, attached.

10 CFR 50.55a(g), "Inservice Inspection Requirements," subsection (4)(ii) addresses the 120 month interval for Inservice Inspection requirements, and subsection (4)(iv) addresses the 120 month interval for Inservice Testing requirements. Both of these subsections refer the licensee to subsection (b) for appropriate Code edition applicability. 10 CFR 50.55a(b)(2)(i) states in part:

"when applying the 1974 Edition, only the addenda through the Summer 1975 Addenda may be used."

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ASME XI, 1974 Edition, Summer 1975 Addenda, Subsection IWA-2400 "Inspection Intervals" states in part:

"(a) The examinations and pressure tests required by IWB, IWC, and IWD shall be completed during each ten-year interval of service, ... For plants that are out of service continuously for one year or more, an inspection interval may be extended for an equivalent period."

During the years 1983 and 1984, the Oyster Creek plant underwent a major refueling and maintenance outage which extended to 22 months. By this letter, GPU Nuclear informs the NRC of the implementation of ASME XI Subsection IWA-2400 to extend the present inspection interval by 22 months, to conclude in October 1991.

Additionally, GPU Nuclear is requesting the extension of the 120 month interval to apply to the Inservice Test Program. This is being requested for four reasons:

- Utilizing a single ASME XI Edition for both Inservice Inspection and Inservice Testing minimizes the potential for error in design, testing, modification, and repair of safety related components.
- Both Inservice Testing and Inservice Inspection program Edition requirements are addressed by a single 10CFR subsection. This would seem to imply that a single Edition of the Code is desirable, if not required, for both applications.
- Inservice Inspection requirements apply over a 10 year period.

  Inservice Testing requirements are never longer than each refueling outage, with a majority of the requirements performed on a quarterly or shorter period. Therefore, Inservice Testing yields a significantly larger database from which to evaluate component functionality. Allowing a 22 month extension in 120 month submittal requirements is more than justified by the relative volume of data routinely obtained.
- 4. GPUN submitted Revision 5 to the Inservice Test program on March 12, 1987. The requested extension would allow usage of the current program for less than five years.

Finally, requests to update specified inspection requirements to more recent versions of the ASME codes have been attached as request nos. 3, 4, and 5. Attachment I provides details of the specified subsections and respective ASME editions.

If any further information is required, please contact Mr. John Rogers of my staff at (609)971-4893.

Very truly yours,

E. E. Fitzpatrick

Vice President and Director

Oyster Creek

EEF/JR/dmd Attachment (0920A)

cc: Mr. William T. Russell, Administrator Region I U.S. Nuclear Regulatory Commission 475 Allendale Road King of Prussia, PA 19406

Mr. Alexander W. Dromerick, Project Manager U.S. Nuclear Regulatory Commission Washington , DC 20555

Mr. John A. Stolz, Director Project Directorate No. I-4 Division of Reactor Projects I/II U.S. Nuclear Regulatory Commission Washington, DC 20555

NRC Resident Inspector Oyster Creek Nuclear Generating Station Forked River, NC 08731

#### ATTACHMENT

### Request No. 1

Letter, D. M. Crutchfield (NRC) to I. R. Finfrock (GPU) dated 10/30/80, stated that the NRC position concerning IWC-1220 exemption criteria of class 2 welds in the emergency core cooling system, as permitted by the 1974 Edition of Section XI, required that a representative sample of welds in this system be examined during each inspection interval. Further, the safety related system could not be completely exempted from examination based upon the requirements of 10CFR50.55a(b), 10CFR50 Appendix A, General Design Criteria 36 and 39, and the Summer 1978 Addenda to the 1977 Edition of Section XI.

In letter, I. R. Finfrock to D. M. Crutchfield dated 2/5/81, and again in letter, P. B. Fiedler (GPU) to D. M. Crutchfield dated 7/2/82, GPU committed to perform volumetric examinations of Isolation Condenser Piping greater than 4" Nominal Pipe Size (NPS). Specifically, an augmented inspection program to inspect 29 welds in the Isolation Condenser System was implemented. Presently, 10 of the 29 welds have been inspected under this program.

GPU has replaced this augmented inspection program with the IGSCC Inspection Program. Over 200 weld inspections in the Isolation Condenser System have been performed during the previous two refueling outages (10R and 11R) under the IGSCC Inspection Program. Approximately 33 weld inspections for IGSCC in the Isolation Condenser System have been tentatively scheduled for refueling outage, 12R. These inspections performed on the Isolation Condenser System under the IGSCC Inspection Program far exceed the original augmented inspection program.

Therefore, GPU Nuclear requests that inspections performed and data collected for the IGSCC program be utilized to fulfill the requirements of the augmented ISI program.

## Request No. 2

The Oyster Creek Generating Station's Inservice Inspection Program performs volumetric examinations of the full weld thickness (t) for category B-J welds in accordance with ASME Section XI, 1974 Edition Summer 1975 Addendum, Figure IWB-3510.1. Standards for examination evaluation are in accordance with ASME Section XI, 1977 Edition Summer 1978 Addendum, IWA-3000.

The OCNGS augmented IGSCC Program performs ultrasonic examinations of the bottom 1/3 and surface liquid penetrant examination of stainless steel welds in systems susceptable to IGSCC (Core Spray, Reactor Recirculation, Shutdown Cooling, Isolation Condenser, and Cleanup Demineralizer Systems). The examinations are performed ir accordance with GPUN's commitments to the NRC for inspection of austenitic stainless steel piping for IGSCC.

As a result of satisfying the requirements of these two inspection programs, some category B-J welds have been inspected twice in the same outage. This is inconsistent with the ALARA concept.

Therefore, GPU Nuclear requests that the examination performed and data collected to meet IGSCC program requirements also be utilized to fulfill the requirements of the ISI program.

### Request No. 3

The OCNGS Inservice Inspection Program is committed to the ASME Boiler and Pressure Vessel Code, Section XI 1974 edition through the Summer 1975 Addenda and updated to the 1977 edition through the Summer 1978 Addenda for Article IWB-3000, "Acceptance Standards for Flaw Indications."

The extent of the examination and inspection volume determined by the full base metal thickness (T) requirement as delineated in Section XI 1974 edition through Summer 1975 Addenda from Table IWB-2500 for all reactor vessel welds, inclusive, that are identified as categories B-A, B-B, B-C, and B-D is not consistent with the extent of the examination and inspection volume determined by the half thickness (1/2 T) requirement for the weld acceptance evaluations as delineated in Section XI, 1977 edition through Summer 1978 Addenda from Table IWB-3410-1 for all reactor vessel welds consolidated into categories B-A and B-D.

GPU Nuclear Corporation requests that the examination and inspection requirements that determine the volumetric extent for reactor vessel welds (shell welds, head welds, shell to flange, head to flange, beltline region, nozzle to vessel and nozzle inside radius section) be updated to ASME Section XI 1977 edition through Summer 1978 Addenda, Subarticle IWB-2500 for categories B-A and B-D. Reactor vessel weld inspections performed in accordance with Section XI 1977 edition through Summer 1978 Addenda allows for 1/2 T distance from the weld in determining the volumetric extent. Weld inspection of 1/2 T extent shall duly minimize the cumulative man-rem exposure acquired during insulation removal which constitutes a decrease in the shielding factor, weld surface preparation, and the inspection stay time. The 1977 edition through the Summer 1978 Addenda update is consistent with the ALARA concept in that the radiation exposure shall be greatly reduced while continuing to satisfy the examination and inspection criteria of ASME Section XI.

# Request No. 4

GPU Nuclear requests to update its commitment for Article IWA-4000, Repair Procedures from 1974 edition thru 1975 Summer Addenda to the 1983 edition thru 1983 Summer Addenda. Article IWA-7000, Replacements (and associated IWB IWC and IWD articles) were not addressed as a separate article in the 1974 edition. It is requested that they be added to GPUN's commitment to ASME XI 1983 edition through 1983 Summer Addenda. This is the latest revision of ASME XI which has been approved by the NRC in 10CFR50.55(a).

### Request No. 5

The Oyster Creek Nuclear Generating Station Inservice Inspection Program is committed to the 1977 Edition Summer 78 Addenda for sub-article IWB-3514.3, "Allowable Indication Standards for Austenitic Piping." IWB 3640, "Evaluation Procedures and Acceptance Criteria for Austenitic Piping", provides analytical methods for evaluating flaws exceeding allowable limits of IWB 3514.3. NUREG 0313, "Technical Report on material Selection and Processing Guidelines for BWR Conlant Pressure Boundary Piping," Revision 2, and Generic Letter 88-01 implementing the NUREG, state the December 1986 Edition of the Code is acceptable to the NRC.

GPUN Corporation requests to utilize the 1986 Edition of the Code, sub-article IWB-3640 for the Inservice Inspection Program and for the IGSCC Inspection Program, as recommended in NUREG 0313.