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Docket 50-320



Mr. John J. Barton
Acting Director, TMI-2
GPU Nuclear Corporation
P.O. Box 480
Middletown, PA 17057

Dear Mr. Barton:

Subject: Recovery Operations Plan Change No. 12
(Reactor Coolant System Chemistry Specifications Change)

Reference: Letter from J. Barton to B. Snyder, same subject, dated
April 15, 1982, 4400-82-L-0054

We have reviewed the referenced letter which transmits your Recovery Operations Plan Change Request Number 14 for reactor coolant system (RCS) chemistry specifications. This change request deletes the dissolved oxygen and dissolved hydrogen specifications, and establishes a RCS chloride specification of 5 ppm in the Recovery Operations Plan (ROP).

The staff's evaluation of these changes, with the supporting information on RCS sulphur analysis and the metallurgical analysis on materials used in the submerged demineralizer system, has concluded that no significant increase in RCS system corrosion should occur, nor loss of system integrity. We therefore, approve your change request and are enclosing the amended sections (ROP Change No. 12) to the Plan.

This ROP change is required both for the timely processing of the reactor coolant system water through the submerged demineralizer system and the partial RCS drain down for the remote visual reactor examination through a control rod drive mechanism. We understand your staff is taking precautionary steps (i.e., prior flushing of SDS and reactor coolant bleed tanks) to insure that present RCS chloride concentration (approximately 0.8 ppm Cl) is not intentionally raised to the 5 ppm maximum limit and that processed makeup water (returned to the RCS via RCBT "A") will be inerted with nitrogen to insure dissolved oxygen is as low as practicable during processing. These are beneficial precautionary steps. Additionally, we suggest a contingency plan be considered to remove chlorides from the RCS or makeup water in the remote case where significant chlorides might leach from previously contaminated system components.

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SURNAME						
DATE						

Mr. John J. Barton

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The deletion of the RCS dissolved hydrogen (formerly maintained above 5 cc/Kg) as an oxygen scavenger is consistent with the dissolved oxygen change. Currently the RCS dissolved H₂ is 9 cc/Kg. While the staff is approving deletion of the dissolved H₂ from the ROP, prior to actual RCS depressurization/reactor vessel opening, the RCS dissolved H₂ should, by procedure, be lowered to less than 5 cc/Kg to insure no combustible gas mixtures form.

Original signed by
Lake H. Barrett

Lake H. Barrett
Deputy Program Director
TMI Program Office

Enclosures: Page No. 4.4-1 and
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DATE ▶	5/11/82	5/11/82	5/12/82			

SURVEILLANCE REQUIREMENTS

4.4 REACTOR COOLANT SYSTEM

REACTOR COOLANT LOOPS

4.4.1 Verify that surveillance of the Reactor Coolant System is being performed in accordance with procedures approved pursuant to Technical Specification 6.8.2.

SAFETY VALVES

4.4.3 Not applicable.

4.4.9 PRESSURE/TEMPERATURE LIMITS

REACTOR COOLANT SYSTEM

4.4.9.1.1 The Reactor Coolant System pressure and temperature shall be determined to be within the limits at least once per 12 hours.

4.4.9.1.2 Deleted.

4.4.9.1.3 Deleted.

4.4.9.1.4 The pH of the reactor coolant shall be determined to be greater than or equal to 7.5 at least once per 7 days.

4.4.9.1.4 The Chloride concentration in the reactor coolant shall be determined to be less than or equal to 5 ppm at least once per 7 days.

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3/4.4 REACTOR COOLANT SYSTEM

BASES

3/4.4.1 REACTOR COOLANT LOOPS

Several alternative methods are available for removal of reactor decay heat. These methods include use of the Mini Decay Heat Removal System, the "Loss to Ambient" cooling mode, and operation of the Reactor Coolant System in the natural circulation mode with heat rejection via the long term "B" steam generator cooling mode. Any one of these cooling methods provides adequate cooling of the reactor and each method is available for decay heat removal. Procedures have been prepared and approved for use of these various cooling methods.

3/4.4.3 SAFETY VALVES

The pressurizer code safety valves operate to prevent the RCS from being pressurized above its Safety Limit of 2750 psig. Each safety valve is designed to relieve 348,072 lbs per hour of saturated steam at the valve's setpoint.

3/4.4.9 PRESSURE/TEMPERATURE LIMIT

The RCS pressure and temperature will be controlled in accordance with approved procedures to prevent a nonductile failure of the RCS while at the same time permitting the RCS pressure to be maintained at a sufficiently high value to permit operation of the reactor coolant pumps.

Reactor coolant chemistry surveillance requirements are included in the Recovery Operations Plan. These requirements provide assurance that localized corrosion or pitting in crevice areas, which could tend to promote stress corrosion cracking in heat affected zones of welds in stainless steel piping or components, will not occur.

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