OYSTER CREEK NUCLEAR GENERATING STATION

OPERATING LICENSE
NO. DPR-16

TECHNICAL SPECIFICATION
CHANGE REQUEST NO. 266
DOCKET NO. 50-219

Applicant submits by this Technical Specification Change Request No. 266 to the Oyster Creek Nuclear Generating Station Technical Specifications, modified pages 2.3-1, 2.3-2, 2.3-3, 2.3-4, 2.3-5, 2.3-6, 2.3-7, 2.3-8, 3.1-9, 3.1-10, 3.1-11, 3.1-12, 3.1-13, 3.1-14, 3.1-15, 3.1-16, 3.1-17, 3.1-18, 3.1-19, 3.1-20, 3.1-21, 4.1-1, 4.1-2, 4.1-3, 4.1-4, 4.1-5, 4.1-6, 4.1-7, 4.1-8,4.1-9, and 4.1-10.

By: Michael B Roche

Michael B. Roche
Vice President and Director
Oyster Creek

Sworn to and Subscribed before me this. day of November 5, 1998.

Geraldine Levin 11/5/98

Notary Public

GERALDINE E. LEVIN
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires 6-8-2003

I. TECHNICAL SPECIFICATION CHANGE REQUEST (TSCR) NUMBER 266

GPU Nuclear requests that the following replacement pages be inserted into the existing Technical Specifications:

Replace existing Section 2.3 in its entirety, Table 3.1.1 in its entirety, and Tables 4.1-1 and 4.1-2 in their entirety with the attached replacement pages 2.3-1 through 2.3-8, 3.1-9 through 3.1-21 and 4.1-1 through 4.1-10.

II. REASON FOR CHANGE

In accordance with TS 3.1.B.3, an average power range monitor (APRM) channel cannot be bypassed in a quadrant diagonally opposite a quadrant containing more than one bypassed or failed local power range monitor (LPRM) detector on the same axial level unless one of the following conditions exist:

1. The APRM channel bypass is in support of a technical specification required LPRM/APRM surveillance.

2. Power is reduced below the 80% rod line.

3. The corresponding reactor protections system (RPS) trip system is placed in the tripped condition.

During the NRC integrated engineering inspection at Oyster Creek, the bypass of an APRM channel to perform LPRM calibrations was reviewed. On February 21, 1995 APRM channel 5 was bypassed in support of an LPRM calibration at the same time that two LPRMs at the same axial level and in the diagonally opposite quadrant were inoperable. At the time, GPUN evaluated the LPRM calibration as a technical specification (TS) surveillance required to ensure that the APRMs were accurately reading reactor power and were operable. Given this interpretation, TS 3.1.B.3 was met and there was no need to reduce power below the 80% rod line or place the RPS trip system in the tripped condition. The NRC concluded, however, since LPRM calibration is not an activity specifically listed in the Oyster Creeks TS surveillance section, it is not a TS required surveillance and, as a result, TS 3.1.B.3 was violated.

GPU Nuclear believes that the type of calibration discussed above is appropriate and ensures the accuracy and operability of the APRM system. In order to eliminate any ambiguity, a review of the technical specifications was performed to identify all changes required to ensure the accuracy and operability of the APRM system.

The actual changes to Section 2.3 are to add specification 2.3.A.3 and its associated basis statement and to make another unrelated change to the Bases. GPUN elected to use this opportunity to re-format the entire Section to make it easier to read and to separate the

Bases segment to facilitate any subsequent change. Similarly, although there is only one line item being added to Table 3.1.1 (Item 3.1.A.13) GPUN has re-formatted the entire Table, eliminating style and font inconsistencies and changing its orientation to landscape. The result of these changes is to make the table easier to read and understand. There are two changes to Table 4.1.1, Item 11 was expanded and Item 32 was added. The format of Table 4.1.1 was changed in the same manner for the same reasons as Table 3.1.1. Both Tables have been repaginated as a result of these changes.

The Bases change to Section 2.3, unrelated to the APRM/LPRM issue, is a clarification identified in a TS review performed as a result of the integrated engineering inspection. The wording was modified to clarify that there are two sets of relays with two-out-of three coincident logic for undervoltage protection.

III. SAFETY EVALUATION JUSTIFYING CHANGE

The Neutron Monitoring System provides the capability to monitor neutron flux in the reactor core from the low intensity of the shutdown condition to the neutron flux anticipated in the case of overpower conditions requiring reactor scram. For power range monitoring, selected groups of LPRMs provide input signals to the APRMs for bulk power level monitoring and automatic core protection. Four APRM channels are connected in each of the two-reactor protection system (RPS) channels.

When one or more monitored parameters exceed their specified limits, the RPS initiates a reactor scram signal to preserve the integrity of the fuel cladding and the Reactor Coolant System and minimize the energy that must be absorbed following a loss of coolant accident. A high APRM (neutron flux) level automatically initiates a scram signal to limit the heat flux to a level well below that which could cause fuel damage.

The proposed technical specification changes to the limits and surveillances of the LPRM and APRM systems and the related Bases changes are provided to ensure the APRM channels respond within the necessary range and accuracy and to verify channel operability. Specifically, an additional limiting safety system setting (LSSS) has been included in Specification 2.3. Protective instrumentation requirements have been added to Table 3.1.1 for the APRM Downscale / IRM Upscale scram function. The delineation of the specific trip functions has been added to the APRM Scram Trips surveillance section of Table 4.1.1. In addition, the surveillance requirements of the LPRMs have been added to Table 4.1.1. The check, calibration, and test frequencies for the APRM scram trips identified in the current TS remain unchanged.

The APRM downscale setpoint requirement is to be included in the technical specifications as a limiting safety system setting (LSSS 2.3.A.3). The setting of $\geq 2\%$ is based upon ensuring APRMs are in the linear scale and operable when transfers are made between APRMs and IRMs.

The APRM downscale/IRM upscale scram signal ensures that there is adequate Neutron Monitoring System protection if the reactor mode switch is placed in the run position prior to the APRMs coming on scale. With the reactor mode switch in run, an APRM downscale signal coincident with an associated IRM high-high or channel inoperative signal generates a trip signal. This signal is not specifically credited in the accident analysis but is retained for overall redundancy and diversity of the RPS.

As gradual changes in the core flux distribution and neutron detector (LPRM) sensitivity occur as a result of changes in control rod patterns and core exposure the corresponding APRM output signal is affected. Performing the APRM level (calorimetric) adjustment at least once every three days and the 1000 MWD/MT LPRM calibration against the TIPs compensates for these changes. These calibrations are necessary in order to ensure the channel output responds within the range and accuracy required for the RPS system.

The calibration of the APRMs to the reactor power calculated from a heat balance ensures that the APRMs are accurately indicating the true core average power. Limiting Safety System Setting (LSSS) 2.3.A.1 allows the APRMs to be reading greater than actual thermal power to compensate for localized power peaking. The requirement for the absolute difference between the APRM channel readings and the calculated power to indicate within 2% RTP is modified to include any gain adjustments required by LSSS 2.3.A. and is consistent with the Standard Technical Specifications (STS).

The LPRM front panel (electronic) test and calibration is performed every 12 months. This test and calibration is provided to check individual LPRM power supply reference and base voltages and to verify LPRM operability. The 12-month frequency is based on operating experience with LPRM power supply changes.

LPRM gain settings are determined from the local flux profiles measured by the Traversing Incore Probe (TIP) System. This establishes the relative local flux profile for appropriate representative input to the APRM System. The 1000 MWD/T Frequency is based on operating experience with LPRM sensitivity changes and is consistent with the STS.

IV. NO SIGNIFICANT HAZARDS DETERMINATION

GPU Nuclear has determined that this TSCR poses no significant hazard as defined by 10 CFR 50.92.

1. The proposed technical specification changes to the limits and surveillance requirements of the LPRM and APRM systems are provided to ensure the APRM channels respond within the necessary range and accuracy and to verify channel operability. If one or more monitored parameters exceeded their specified limits, the RPS initiates a reactor scram signal to preserve the integrity of the fuel cladding and the

Reactor Coolant System and minimize the energy that must be absorbed following a loss of coolant accident. Therefore, the probability of occurrence or the consequences of an accident previously evaluated in the SAR will not increase as a result of these changes.

2. The proposed technical specification changes to the limits and surveillance requirements of the LPRM and APRM systems are provided to ensure the APRM channels respond within the necessary range and accuracy and to verify channel operability. The proposed changes are designed to ensure the APRM system responds in a manner that ensures the safety limits, limiting safety system settings, limiting conditions for operations, as well as design parameters for the APRM system and individual components are continuously met. Therefore, the proposed activity does not create the possibility for an accident or malfunction of a different type than any previously identified in the SAR.

3. The proposed change does not involve a significant reduction in the margin of safety. When the APRMs exceed their specified limits, the RPS initiates a reactor scram signal to preserve the integrity of the fuel cladding and the Reactor Coolant System and minimize the energy that must be absorbed following a loss of coolant accident. The proposed changes are designed to assure the APRM system responds in a manner that ensures the safety limits, limiting safety system settings, limiting conditions for operations, as well as design parameters for the APRM system and individual components are continuously met. Therefore, the margin of safety will not be reduced.

V. IMPLEMENTATION

GPU Nuclear requests that this amendment be effective thirty days after issuance.