# GPU NUCLEAR CORPORATION OYSTER CREEK NUCLEAR GENERATING STATION

## Facility Operating License No. DPR-16

Technical Specification Change Request No. 217, Rev. 1 Docket No. 50-219

Applicant submits, by this Technical Specification Change Request No. 217, Rev. 1, to the Oyster Creek Nuclear Generating Station Operating License, a change to pages 1.0-1, 1.0-2, 1.0-8, 3.2-1, 3.2-2, 3.2-3, 3.2-4, 3.2-5, 3.2-6, 3.2-7, 3.2-8, 3.2-9, 3.2-10, 3.2-11, 3.2-12, 3.9-2, 4.2-1, 4.2-2, 4.2-3 and 4.2-4.

J. J. Barton

Vice President and Director Oyster Creek

Sworn and Subscribed to before me this  $\mathcal{R}\mathcal{A}$  day of

/1994.

JUDITH M. CROWE Notary Public of New Jersey My Commission Expires \_\_\_\_\_35\_95\_

9406280108 940622 PDR ADOCK 05000219 P

## UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

In the Matter of

Docket No. 50-219

GPU Nuclear Corporation

### CERTIFICATE OF SERVICE

This is to certify that a copy of Technical Specification Change Request No. 217, Rev. 1, for Oyster Creek Nuclear Generating Station Operating License, filed with the U.S. Nuclear Regulatory Commission on June 22 1994 has this day of June 221994, been served on the Mayor of Lacey Township, Ocean County, New Jersey by deposit in the United States mail, addressed as follows:

The Honorable Theodore J. Hutler Mayor of Lacey Township 818 West Lacey Road Forked River, NJ 08731

Barton

Vice President and Director Oyster Creek

## OYSTER CREEK NUCLEAR GENERATING STATION OPERATING LICENSE NO. DPR-16 DOCKET NO. 50-219 TECHNICAL SPECIFICATION CHANGE REQUEST NO. 217, Rev. 1

Applicant hereby requests the Commission to change Facility Operating License No. DPR-16 as discussed below, and pursuant to 10 CFR 50.91, an analysis concerning the determination of no significant hazards consideration is also presented:

## 1.0 SECTIONS TO BE CHANGED

Sections 1.6, 1.7, 1.45, 3.2, 3.9 and 4.2.

## 2.0 EXTENT OF CHANGE

TSCR 217, Rev. 1, proposes changes to Sections 1.6, 3.2.A, 3.9.F.5, and 4.2.A which specify the Shutdown Margin (SDM) requirements that ensure the reactor can be made subcritical and can be maintained sufficiently subcritical to preclude inadvertent criticality in any core condition. The TSCR also proposes a new definition, Shutdown Margin, Section 1.45. The proposed changes address the requirements for SDM demonstration and provide clarification for actions if SDM is not met.

This TSCR also proposes administrative changes to Sections 1.7 and 3.2.B.2 (b). The definition COLD SHUTDOWN CONDITION, was simplified by stating the reactor is in the SHUTDOWN CONDITION which eliminates the need of repeating the requirements for this condition. The note which permitted unlimited reactor startups without the Rod Worth Minimizer during Cycle 11 is no longer applicable. The note and its reference are deleted from the new page 3.2-2. Starting with page 3.2-2 in Section 3.2, the pages were renumbered and repaginated to accomodate the changes in text.

## 3.0 CHANGES REQUESTED

As delineated on the attached revised Technical Specification pages 1.0-1, 1.0-2, 1.0-8, 3.2-1, 3.2-2, 3.2-3, 3.2-4, 3.2-5, 3.2-6, 3.2-7, 3.2-8, 3.2-9, 3.2-10, 3.2-11, 3.2-12, 3.9-2, 4.2-1, 4.2-2, 4.2-3 and 4.2-4.

## 4.0 DISCUSSIONS

The core reactivity Limiting Condition for Operation (LCO) of Specification 3.2.A is revised to incorporate new SDM limits and to identify required actions if the SDM is not met in various modes. In addition, the surveillance requirements of specification 4.2.A are revised to identify the conditions under which SDM must be verified. The SDM limit specified in the revised section 3.2.A accounts for the uncertainty in the demonstration of SDM by testing. Separate limits are provided for testing where the highest worth control rod is determined analytically (0.38% delta k) or by measurement (0.28% delta k). This is due to the reduced uncertainty in the SDM test when the highest worth control rod is determined by measurement. In both cases the limit is more restrictive than the value which they are replacing (0.25% delta k). Therefore, the margin of safety has increased.

When the SDM is not within the limit, various actions are now proposed within specified time periods. These actions are not identified in the current TS.

## Startup or Run Mode

Failure to meet the specified SDM limits in the STARTUP or RUN MODE may be caused by control rods that cannot be inserted. Reduced SDM is not considered an immediate threat to nuclear safety, therefore time is allowed for analysis to insure the SDM limits are met, and for repair. The allowed times of six (6) hours for analysis and an additional six (6) hours for repair, if the SDM is not met, is considered acceptable, considering that the reactor can still be shutdown, assuming no failure of additional control rods to insert, and the low probability of an event occurring during this interval.

If the SDM cannot be restored, the plant must be brought to the SHUTDOWN condition in 12 hours, to prevent the potential for further reductions in available SDM (e.g., additional stuck control rods). The allowed completion time of twelve (12) hours is reasonable, based on operating experience, to reach SHUTDOWN condition from full power conditions in an orderly manner and without challenging plant systems.

#### Shutdown Condition

If the SDM is not within the limits in the SHUTDOWN condition, the operator must fully insert all insertable control rods in one (1) hour. This action results in the least reactive condition for the core. The allowed completion time of one (1) hour provides sufficient time to take corrective action and is acceptable, considering that the reactor can still be shutdown, assuming there are no failures of additional control rods to insert.

#### Cold Shutdown Condition

If the SDM is not within the limits in the COLD SHUTDOWN condition, the operator must fully insert all insertable control rods in one (1) hour. Action must also be initiated to provide means for the control of potential radioactive releases by maintaining secondary containment integrity.

#### Refuel

If the SDM is not within the limits in the REFUEL mode, the operator must immediately suspend core alterations that could reduce SDM. The suspensions are for insertion of fuel in the core or the withdrawal of control rods. Suspension of these activities shall not preclude the completion of movement of a component to a safe condition. Inserting control rods or removing fuel from the core will reduce the total reactivity and are therefore excluded from the suspended actions. Action must also be initiated to provide means for control of potential radioactive releases by maintaining secondary containment integrity.

## Summary

The proposed TS changes provide for proper and timely operator response to conditions outside the SDM specification. These TS actions do not decrease the margin of safety in that the new SDM limits are more restrictive than the current SDM limit.

## 5.0 DETERMINATION

GPU Nuclear has determined that operation of the Oyster Creek Nuclear Generating Station in accordance with the proposed Technical Specifications does not involve a significant hazard. The changes do not:

1. Involve a significant increase in the probability or the consequence of an accident previously evaluated.

The proposed SDM Limits are more restrictive and provide adequate shutdown margin for various modes of reactor operation. Since the new SDM limits do not modify any initial conditions for the accidents previously evaluated in the SAR, the proposed changes do not involve a significant increase in the probability or the consequences of these accidents.

## Create the possibility of a new or different kind of accident from any previously evaluated.

The proposed TS changes do not modify the function of any structure, system or component. The new Shutdown Margin requirements will still meet the basic criterion that the core in its maximum reactivity condition be subcritical with the control rod of highest worth fully withdrawn and all operable rods fully inserted. Based on these facts, the proposed TS changes do not create the possibility of a new or different kind of accident from any previously evaluated.

## 3. Involve a significant reduction in a margin of safety.

The proposed changes do not reduce the margin of safety, because the new SDM limits where the highest worth control rod is determined analytically (0.38% delta k) or by measurement (0.28% delta k) are more restrictive than the current Oyster Creek limit (0.25% delta k).

# 6.0 IMPLEMENTATION

We request that the amendment authorizing this change become effective within sixty (60) days.