

AmerGen Energy Company, LLC
Oyster Creek
US Route 9 South
P.O. Box 388
Forked River, NJ 08731-0388

10 CFR 50.90

September 10, 2001
2130-01-20139

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

Subject: Oyster Creek Generating Station
Facility Operating License No. DPR-16
Docket No. 50-219
Technical Specification Change Request No. 295

In accordance with 10 CFR 50.4(b)(1), enclosed is Technical Specification Change Request (TSCR) No. 295 for the above facility.

In accordance with 10 CFR 50.90, AmerGen Energy Company, LLC (AmerGen) requests an amendment to the Technical Specifications (TS) contained in Appendix A to the Facility Operating License as described in Enclosure 1. The proposed change would revise the requirement to determine operability of core spray pumps and system components by verification rather than testing in TS 3.4.A.7.c and 3.4.A.8.c and the fire protection system in TS 3.4.A.7.c. A mark-up of TS page 3.4-2 showing the requested change is contained in Enclosure 2. Corresponding changes to the Bases of Specification 3.4 are also included in Enclosure 2. Replacement TS pages reflecting the requested change will be provided to the NRC prior to the issuance of the license amendment.

AmerGen requests review and approval of the proposed change by September 10, 2002 in advance of the next (1R19) refueling outage currently scheduled to commence October 16, 2002.

Using the standards in 10 CFR 50.92, AmerGen has concluded that the proposed change does not constitute a significant hazard as described in the Enclosure 1 analysis performed in accordance with 10 CFR 50.91 (a)(1).

AmerGen believes that an environmental review of this change is not required in accordance with the criteria of 10 CFR 51.22 (c)(9). The proposed change does not involve a significant hazard, pertains only to a revised surveillance requirement that does not affect the amount of effluents released offsite and does not result in an increase in individual or cumulative occupational radiation exposure.

ADD

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Pursuant to 10 CFR 50.91 (b)(1), also enclosed is a Certificate of Service for this request certifying service to the designated official of the State of New Jersey Bureau of Nuclear Engineering and the Mayor of Lacey Township, Ocean County, New Jersey.

This license amendment application has undergone a safety review in accordance with Section 6.5 of the Oyster Creek Technical Specifications. Aside from new requirements associated with the requested change to the Technical Specifications there are no new commitments contained in this correspondence.

Should you have any questions or require any additional information please contact Mr. Paul F. Czaya at 609-971-4139.

Very truly yours,



Ron J. DeGregorio
Vice President
Oyster Creek

Enclosures: 1) Technical Specification Change Request No. 295
2) Technical Specification Mark-up

c: H. J. Miller, Administrator, USNRC Region I
L. A. Dudes, USNRC Senior Resident Inspector, Oyster Creek
H. N. Pastis, USNRC Senior Project Manager, Oyster Creek
File No. 01067

AmerGen Energy Company, LLC
Oyster Creek Generating Station

Facility Operating License No. DPR-16

Technical Specification Change Request No. 295
Docket No. 50-219

Applicant hereby submits a proposed change to Appendix A Technical Specification page 3.4-2.
All statements contained in this application have been reviewed, and all such statements made
and matters set forth therein are true and correct to the best of my knowledge.

By: 

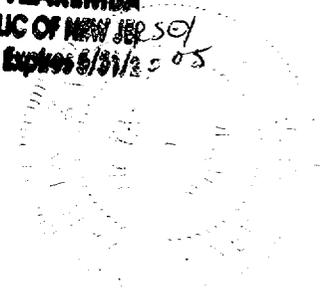
Ron J. DeGregorio
Vice President
Oyster Creek

Sworn and subscribed to before me this 10th day of September 2001.



A Notary Public of NJ

MARITA ZARIMBA
NOTARY PUBLIC OF NEW JERSEY
Commission Expires 6/31/2005



United States of America
Nuclear Regulatory Commission

In the Matter of)
AmerGen Energy Company, LLC)

Docket No. 50-219

Certificate of Service

This is to certify that a copy of Technical Specification Change Request No. 295 for the Oyster Creek Generating Station Facility Operating License, filed with the U.S. Nuclear Regulatory Commission on September 10, 2001 has this 10th day of September 2001, been served on the Mayor of Lacey Township, Ocean County, New Jersey, and the designated official of the State of New Jersey Bureau of Nuclear Engineering, by deposit in the United States mail, addressed as follows:

The Honorable Ronald Sterling
Mayor of Lacey Township
818 West Lacey Road
Forked River, NJ 08731

Mr. Kent Tosch, Director
Bureau of Nuclear Engineering
Department of Environmental Protection
CN 411
Trenton, NJ 08625

By: 

Ron J. DeGregorio
Vice President
Oyster Creek

Enclosure 1

Oyster Creek Generating Station
Technical Specification Change Request No. 295

Safety Evaluation
and
No Significant Hazards Determination

I. Technical Specification Change Request No. 295

The proposed changes are to Technical Specifications (TS) 3.4.A.7.c and 3.4.A.8.c. The changes are as follows:

The requirement in TS 3.4.A.7.c and 3.4.A.8.c to repetitively demonstrate operability of core spray pumps and system components and the fire protection system (TS 3.4.A.7.c only) by testing is revised to confirm operability through verification. Verification will be by administrative check of appropriate plant records. Also, TS 3.4.A.7.c is being clarified to ensure that the verification of operability is aligned to the core spray system component operability description in TS 3.4.A.7.a.

The proposed changes are contained on TS page 3.4-2. Words in the specifications contained on affected pages that are defined by Section 1.0 of the Technical Specifications are capitalized consistent with the format of the Standard Technical Specifications. This aspect is a purely administrative change. A mark-up of TS page 3.4-2 is contained in Enclosure 2. In addition, a revision of TS Section 3.4 Bases on page 3.4-7 is also provided in Enclosure 2.

II. Discussion of Proposed Changes

The changes propose verification of core spray pump/component and fire protection system operability in TS 3.4.A.7.c and core spray pump/component operability in TS 3.4.A.8.c in lieu of repetitive system testing when reduced core spray availability requirements are in effect. The reduced availability mode for the core spray system provided by TS 3.4.A.7 and 3.4.A.8 requires fewer system components to be operable and allows manual initiation rather than automatic system start. The core spray system reduced availability specifications only apply when the reactor is in the cold shutdown or refuel modes.

License Amendment No. 167 to the Oyster Creek Facility Operating License No. DPR-16, issued on December 21, 1993, revised TS Definition 1.1, OPERABLE-OPERABILITY, to define the attributes of a verification of operability. The proposed verification of system and component operability in lieu of demonstration for Specifications 3.4.A.7.c and 3.4.A.8.c will be performed as prescribed by Definition 1.1.

The capitalization of terms defined in Section 1.0 of the Technical Specifications, where they appear on the TS page affected by this license amendment request is purely

administrative in nature and has no impact on existing requirements. In order to ensure clarity with regard to the use of the definition of operable in TS 3.4.A.7.c, a proposed change to TS 3.4.A.7.c will refer to TS 3.4.A.7.a as describing the operability requirements for the core spray system. TS 3.4.A.7.a states that:

“At least one core spray pump, and system components necessary to deliver rated core spray to the reactor vessel, must remain operable to the extent that the pump and any necessary valves can be started or operated from the control room or from local control stations.”

The verification of operability in TS 3.4.A.7.c would then ensure that the core spray system would be operable to the extent described in TS 3.4.A.7.a.

III. Safety Assessment

The proposed changes to Technical Specifications 3.4.A.7.c and 3.4.A.8.c are associated with emergency core cooling requirements for a loss of coolant from the reactor vessel when the plant is shutdown. TS 3.4.A.7 and 3.4.A.8 were incorporated by License Amendment No. 12, dated January 21, 1976. The proposed changes contained in this request do not affect the assumptions or conclusions of that evaluation and do not impact the physical characteristics of the core spray system. Therefore, the proposed changes will not adversely impact safety, as they do not involve hardware changes, operating parameters or affect system design bases. The proposed changes involve the determination of operability for required systems and components.

Surveillance testing as required by TS 4.4.A has consistently demonstrated high core spray component reliability. The inservice testing program is designed to detect core spray component issues and specifies appropriate action to ensure continued operability. Surveillance of the fire protection system is performed in accordance with the Fire Protection Program required by License Condition 2.C.3 and TS 4.4.F. Both the core spray and fire protection systems are monitored for availability and reliability under the Maintenance Rule. Therefore, changing the operability demonstration via repetitive testing in TS 3.4.A.7.c and 3.4.A.8.c to verification in accordance with TS Definition 1.1 provides adequate assurance of system operability.

Core spray pump/component performance degradation during plant operation is minimal due to the nature of its standby mode and quarterly testing requirements. In addition, as a backup to the core spray pumps/components, the fire protection system diesel-driven pumps are also in the standby mode and are tested monthly in accordance with TS

4.4.F.1. Weekly testing of core spray components and the fire protection system as required by TS 3.4.A.7.c or testing core spray components every 72 hours as required by TS 3.4.A.8.c, increases component wear, which decreases equipment reliability and increases maintenance. The ability of core spray system components or fire protection system to perform their safety function in response to the postulated loss of coolant during shutdown conditions remains unchanged since the operational aspects of the core spray system configuration or fire protection system in the reduced availability mode are unaffected by the proposed change. The proposed verifications will be performed as specified by TS Definition 1.1.

The proposed change to TS 3.4.A.7.c that refers to TS 3.4.A.7.a as describing the extent of operability of the core spray system is essentially an editorial change that clarifies what needs to be verified operable. TS 3.4.A.7.a and TS 3.4.A.7.c work together to describe the extent of operability required for the core spray system (TS 3.4.A.7.a) and periodically verify its operability (TS 3.4.A.7.c).

IV. Information Supporting a Finding of No Significant Hazards

AmerGen has concluded that the proposed changes to the TS do not involve significant hazards. In support of this determination, an evaluation of each of the three standards set forth in 10 CFR 50.92 is provided below.

1. The proposed TS changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed TS changes are not associated with accident initiators. The proposed changes are, however, associated with emergency core cooling requirements for loss of coolant mitigation. This event is a loss of coolant from the reactor vessel when the plant is shutdown and was evaluated in the NRC Safety Evaluation Report supporting License Amendment No. 12, dated January 21, 1976. The proposed changes contained in this request do not affect the assumptions or conclusions of that evaluation and do not impact the physical characteristics of the core spray and fire protection systems. Therefore, the proposed changes do not degrade the ability of the core spray and fire protection systems to perform their intended accident mitigation function. The proposed changes to core spray pump/component and fire protection system operability verification versus demonstration in TS 3.4.A.7.c and core spray pump/component operability verification versus demonstration in TS 3.4.A.8.c provide an alternate means of determining equipment operability without reliance

on frequent testing. The clarification of the extent of core spray system operability verification in TS 3.4.A.7.c does not change any existing requirements. Therefore, the proposed changes to TS 3.4.A.7.c and 3.4.A.8.c do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. The proposed TS changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed TS changes are not associated with accident initiators. They are changes that provide an alternate means of determining equipment operability while eliminating frequent testing.

The proposed changes to TS 3.4.A.7.c and 3.4.A.8.c do not involve the addition of any new plant structure, system or component (SSC). Similarly, the proposed TS changes do not involve physical changes to an existing SSC nor do they modify any current operating parameters. Providing an alternate means of determining equipment operability does not alter the functional capability of any accident mitigation system. The clarification of the extent of core spray system operability verification in TS 3.4.A.7.c does not change any existing requirements. Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. The proposed TS changes do not involve a significant reduction in a margin of safety.

The proposed changes to TS 3.4.A.7.c and 3.4.A.8.c are not associated with accident initiators and do not introduce new SSCs or physically impact existing SSCs. They are changes that provide an alternate means (i.e., verification) of determining core spray and fire protection system component operability. The capability of the necessary core spray and fire protection components to provide the required core cooling flow is demonstrated during surveillance testing. While the proposed changes revise the method of determining the operability of the core spray and fire protection system in the reduced availability mode, they do not degrade the ability of the systems to perform their intended function. The clarification of the extent of core spray system operability verification in TS 3.4.A.7.c does not change any existing requirements. Therefore, the proposed TS change does not involve a significant reduction in a margin of safety.

V. Information Supporting an Environmental Assessment Determination

An environmental assessment is not required for the proposed changes since they conform to the criteria for "actions eligible for categorical exclusion" as specified in 10 CFR 51.22(c)(9). The proposed changes will have no impact on the environment. The proposed changes do not involve significant hazards as discussed in the preceding section. The proposed changes do not involve a significant change in the types or significant increase in the amounts of any effluents that may be released off-site since they are only associated with a revision of surveillance requirements for the core spray and fire protection systems when in the reduced availability mode. In addition, the proposed changes do not involve a significant increase in individual or cumulative occupational radiation exposure.

VI. Conclusion

The proposed changes to TS 3.4.A.7.c and 3.4.A.8.c, which revise surveillance requirements for the core spray system when in the reduced availability mode and for the fire protection system (TS 3.4.A.7.c only), involve no significant hazards and do not require an environmental assessment.

VII. Implementation

AmerGen requests the proposed changes in this license amendment request to become effective upon issuance with implementation in 30 days.

Enclosure 2

Oyster Creek Technical Specification Change Request No. 295

Mark-up Revision to Technical Specifications Pages 3.4-2 and 3.4.7

If two of the redundant active loop components become inoperable, the limits of Specification 3.4.A.3 shall apply.

5. During the period when one diesel is inoperable, the core spray equipment connected to the operable diesel shall be operable.
6. If Specifications 3.4.A.3, 3.4.A.4, and 3.4.A.5 are not met, the reactor shall be placed in the cold shutdown condition. If the core spray system becomes inoperable, the reactor shall be placed in the cold shutdown condition and no work shall be performed on the reactor or its connected systems which could result in lowering the reactor water level to less than 4'8" above the top of the active fuel.
7. If necessary to accomplish maintenance or modifications to the core spray systems, their power supplies or water supplies, reduced system availability is permitted when the reactor is:
(a) maintained in the cold shutdown condition or (b) in the refuel mode with the reactor coolant system maintained at less than 212°F and vented, and (c) no work is performed on the reactor vessel and connected systems that could result in lowering the reactor water level to less than 4'8" above the top of the active fuel. Reduced Core Spray System Availability is minimally defined as follows:
 - a. At least one core spray pump, and system components necessary to deliver rated core spray to the reactor vessel, must remain operable to the extent that the pump and any necessary valves can be started or operated from the control room or from local control stations.
 - b. The fire protection system is operable, and
 - c. These systems are ~~demonstrated~~ ^{verified} to be operable on a weekly basis.
8. If necessary to accomplish maintenance or modifications to the core spray systems, their power supplies or water supplies, reduced system availability is permitted when the reactor is in the refuel mode with the reactor coolant system maintained at less than 212°F or in the startup mode for the purposes of low power physics testing. Reduced core spray system availability is defined as follows:
 - a. At least one core spray pump in each loop, and system components necessary to deliver rated core spray to the reactor vessel, must remain operable to the extent that the pump and any necessary valves in each loop can be started or operated from the control room or from local control stations.
 - b. The fire protection system is operable and,
 - c. Each core spray pump and all components in 3.4.A.8a are ~~demonstrated~~ to be operable every 72 hours.

as described in Specification 3.4.A.7.a above

verified

Specification 3.4.A.4 allows continued operation with one component inoperable for a limited period of time. Each core spray loop contains redundant active components based upon Reference 1 or 5, as appropriate. Therefore, with the loss of one of these components, the system as a whole (both loops) can tolerate an additional single failure of one of its active components and still perform the intended function and meet 10CFR50.46 criteria. If a redundant active component fails, a fifteen day period is allowed for repairs, based on 1 out of 4 components being required. 3.4.A.4.b insures that the 1 out of 4 requirement is maintained.

Specification 3.4.A.5 ensures that if one diesel is out of service for repair, the core spray components fed by the other diesel must be operable. Since each diesel will provide power to components for both core spray loops, the required flow specified in the bases for Specification 3.1.A.1 will be met.

When the reactor is in the shutdown or refueling mode and the reactor coolant system is less than 212°F and vented and no work is being performed that could result in lowering the water level to less than 4'8" above the core, the likelihood of a leak or rupture leading to uncovering of the core is very low. The only source of energy that must be removed is decay heat and one day after shutdown this heat generation rate is conservatively calculated to be not more than 0.6% of rated power. Sufficient core spray flow to cool the core can be supplied by one core spray pump or one of the two fire protection system pumps under these conditions. When it is necessary to perform repairs on the core spray system components, power supplies or water sources, Specification 3.4.A.7 permits reduced cooling system capability to that which could provide sufficient core spray flow from two independent sources. Manual initiation of these systems is adequate since it can be easily accomplished within 15 minutes during which time the temperature rise in the reactor will not reach 2200°F.

In order to allow for certain primary system maintenance, which will include control rod drive repair, LPRM removal/installation, reactor leak test, etc., (all performed according to approved procedure), Specification 3.4.A.8 requires the availability of an additional core spray pump in an independent loop, while this maintenance is being performed the likelihood of the core being uncovered is still considered to be very low, however, the requirement of a second core spray pump capable of full rated flow and the 72 hour operability demonstration of both core spray pumps is specified.

verification

Specification 3.4.A.10 allows the core spray system to be inoperable in the cold shutdown or refuel modes if the reactor cavity is flooded and the spent fuel pool gates are removed and a source of water supply to the reactor vessel is available. Water would then be available to keep the core flooded.

The relief valves of the automatic depressurization system enable the core spray system to provide protection against the small break in the event the feedwater system is not active.