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10 CFR 50.90

June 2, 2003
2130-03-20152

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Subject: Technical Specification Change Request No. 314 – Startup Transformer and Emergency Diesel Generator Unavailability Periods

Oyster Creek Generating Station
Facility Operating License No. DPR-16
NRC Docket No. 50-219

In accordance with 10 CFR 50.4(b)(1), enclosed is Technical Specification Change Request No. 314.

The purpose of this Technical Specification Change Request is to revise Oyster Creek Technical Specifications 3.7.B.1 and 3.7.C.2 to delete the 30 day unavailability period restriction for occurrence of the specified 7 day allowed outage durations for the startup . transformers and the emergency diesel generators

Using the standards in 10 CFR 50.92, AmerGen Energy Company, LLC (AmerGen) has concluded that these proposed changes do not constitute a significant hazards consideration, as described in the enclosed analysis performed in accordance with 10 CFR 50.91(a)(1). Pursuant to 10 CFR 50.91(b)(1), a copy of this Technical Specification Change Request is provided to the designated official of the State of New Jersey, Bureau of Nuclear Engineering, as well as the Chief Executive of the township in which the facility is located.

This proposed change to the Technical Specifications has undergone a review in accordance with Section 6.5 of the Oyster Creek Technical Specifications. No new regulatory commitments are established by this submittal. NRC approval of this change is requested by November 30, 2003 to avoid a potential unnecessary restriction on accumulated emergency diesel generator allowed outage time.

If any additional information is needed, please contact David J. Distel at (610) 765-5517.

A001

I declare under penalty of perjury that the foregoing is true and correct.

Sincerely,

06-02-03
Executed On

Michael P. Gallagher
Director, Licensing & Regulatory Affairs
Mid-Atlantic Regional Operating Group
AmerGen Energy Company, LLC

Enclosures: (1) Oyster Creek Technical Specification Change Request No. 314
Evaluation of Proposed Changes
(2) Oyster Creek Technical Specification Change Request No. 314
Markup of Proposed Technical Specification Page Changes

cc: H. J. Miller, Administrator, USNRC Region I
P. S. Tam, USNRC Senior Project Manager, Oyster Creek
S. Dennis, USNRC Senior Resident Inspector, Oyster Creek
File No. 03064

ENCLOSURE 1

Oyster Creek Technical Specification Change Request No. 314

Evaluation of Proposed Changes

1.0 INTRODUCTION

This letter is a request to amend Operating License No. DPR-16.

The proposed changes would revise the Operating License by deleting the 30 day unavailability period restriction for occurrence of the specified 7 day allowed outage durations for the startup transformers and the emergency diesel generators currently contained in Oyster Creek Technical Specifications 3.7.B.1 and 3.7.C.2. NRC approval of this change is requested by November 30, 2003 to avoid a potential unnecessary restriction on accumulated emergency diesel generator allowed outage time.

AmerGen Energy Company, LLC (AmerGen) requests that the following changed replacement page be inserted into the existing Technical Specifications:

Revised Technical Specification Page: 3.7-2.

The marked up page showing the requested changes is provided in Enclosure 2.

2.0 DESCRIPTION OF PROPOSED AMENDMENT

Oyster Creek Technical Specifications 3.7.B.1 currently specifies that the reactor may remain in operation for a period not to exceed 7 days in any 30 day period if a startup transformer is out of service. Technical Specification 3.7.C.2 currently specifies that the "reactor may remain in operation for a period not to exceed 7 days in any 30 day period if a diesel generator is out of service." The proposed change deletes the phrase "in any 30 day period" from each of these respective Technical Specification Sections.

The phrase "in any 30 day period" is unnecessarily restrictive and is not included in other Limiting Condition of Operation (LCO) action statements in the Oyster Creek Technical Specifications. This restriction has no defined basis in the existing Oyster Creek Technical Specifications, nor in the design and licensing basis as described in the Oyster Creek Updated Final Safety Analysis Report (UFSAR). There is no analytical basis to support the 30 day period interval for the startup transformers or the emergency diesel generators. This requirement may be a carryover from the original Oyster Creek design, which only included one emergency diesel generator and thus increased its importance as well as that of the startup transformers. The licensing basis at the time of initial commercial operation incorporated two redundant 100% capacity emergency diesel generators. The proposed change does not change the existing Technical Specification allowed outage time of 7 days for these components. During the allowed outage time of 7 days the redundant startup transformer or emergency diesel generator is required to be operable. This requirement ensures that adequate AC power is available to safety related electrical loads in order to safely shutdown the plant and mitigate the consequences of a design basis

accident. Reliability and availability of the Oyster Creek startup transformers and emergency diesel generator components are appropriately controlled, maintained, and monitored by other regulatory requirements and nuclear plant operation monitoring practices, such as the Maintenance Rule (10 CFR 50.65) and the Reactor Oversight Process Performance Indicator Program.

3.0 BACKGROUND

The Oyster Creek Onsite Power System consists of a non-Class 1E system and two redundant Class 1E safety related systems. The normal source for both the non-Class 1E and Class 1E distribution systems is the turbine generator, which feeds the Station Auxiliary Transformer through the generator isolated phase bus. The preferred power supply for the distribution systems during startup, shutdown, abnormal or accident conditions is the Startup Transformers, which are fed from the transmission system via the 34.5 kV Oyster Creek substation. Two redundant Startup Transformers are part of the non-essential auxiliary electrical power system. Essential Bus Sections 1C and 1D are normally powered from the 4.16 kV switchgear Bus Sections 1A and 1B. Essential Bus Sections 1C and 1D are also provided with bus tie breakers that interconnect the essential buses, which permits energizing them from either of the two startup transformers. One Startup Transformer is adequate to supply power to the required safety loads in the event of a design basis accident condition, as described in Oyster Creek UFSAR Section 8.3.

Two separate and independent Emergency Diesel Generators are provided as the redundant onsite standby power supplies for safety related equipment. The Emergency Diesel Generators are part of the essential auxiliary electrical power system. In the event of loss of normal or preferred power to the essential 4.16 kV switchgear Bus Sections 1C and 1D, these buses are designed to separate from the non-essential Bus Sections 1A and 1B and the Emergency Diesel Generators will automatically start, accelerate and close in to the emergency buses in 20 seconds. A single Emergency Diesel Generator is adequate to power required safety related loads in the event of a design basis accident condition, as described in Oyster Creek UFSAR Section 8.3.

4.0 TECHNICAL ANALYSIS

The availability of the Oyster Creek startup transformers and emergency diesel generators is adequately maintained and monitored under the requirements of the Maintenance Rule (10 CFR 50.65) and the NRC Reactor Oversight Process Performance Indicator Program.

Implementation of the Maintenance Rule in accordance with 10 CFR 50.65 and as described in Exelon/AmerGen Procedure ER-AA-310, "Implementation of the Maintenance Rule," ensures that the performance of the startup transformers

and emergency diesel generators is monitored against established performance criteria, in a manner sufficient to provide reasonable assurance that they are capable of fulfilling their intended functions.

The Emergency Diesel Generators at Oyster Creek are scoped into the Maintenance Rule as a risk significant structure, system, or component (SSC). Being classified as risk significant per 10CFR50.65 (the Maintenance Rule) requires that the SSC be monitored for reliability and availability. The Oyster Creek performance criteria are currently set at 2% unavailability per Emergency Diesel Generator per rolling 2 year period and <2 Maintenance Preventable Functional Failures (MPFFs) per 2 year period and no Repeat Maintenance Preventable Functional Failures (RMPFFs). There are also several plant level indicators that are used to monitor the performance of all SSC's. These include: no plant scrams, safety system actuations, and more than 2 days lost generation caused by any SSC.

The Startup Transformers at Oyster Creek are also scoped into the Maintenance Rule as risk significant SSC's. Being classified as risk significant per 10 CFR 50.65 requires that the SSC be monitored for reliability and availability. The Oyster Creek performance criteria are currently set at 1% unavailability per transformer per rolling 2 year period and no Maintenance Preventable Functional Failures (MPFFs) per 2 year period. Condition Monitoring is also performed, this includes inspections, oil sampling and output voltage. There are also several plant level indicators that are used to monitor the performance of all Maintenance Rule SSCs. These include, no plant scrams, safety system actuations and more than 2 days lost generation caused by any SSC.

These criteria have been established as the measures to monitor the effectiveness of the maintenance program for the Startup Transformers and Emergency Diesel Generators at Oyster Creek. Exceeding any of these performance criteria require the evaluation of the SSC's for elevation to "a(1)" status per 10 CFR 50.65 paragraph a(1). Classification as "a(1)" status requires the development of formal actions to improve system performance and additional monitoring to measure the success of the improvements. AmerGen has implemented more restrictive administrative limits below the Maintenance Rule "a(1)" limits to identify adverse trends and further ensure performance criteria is met.

Paragraph a(3) of 10 CFR 50.65 requires that, on a period of not to exceed 24 months, the Station perform an evaluation of the effectiveness of the maintenance program. This includes an evaluation of the balance between availability and reliability and adjustment to the program if required. The NRC also reviews the results and conclusion of each completed "a(3)" assessment. Additionally, as required by paragraph a(4) of 10 CFR 50.65, prior to performing maintenance activities on the startup transformers or emergency diesel generators, Oyster Creek assesses and manages the increase in risk that may

result from the proposed maintenance activities to ensure an acceptable level of overall plant risk to public health and safety.

The Reactor Oversight Process Performance Indicator Program specifically monitors and reports the Oyster Creek emergency diesel generator availability, reliability, and capability to perform its intended safety function, under the Mitigating Systems Cornerstone. The Performance Indicator Program monitors the ability of the emergency diesel generators to provide AC power to the Class 1E buses upon loss of offsite power, and for accident conditions specified in the design and licensing basis for the plant. Performance is calculated on a monthly basis and reported to the NRC quarterly. The performance indicator accounts for both planned and unplanned emergency diesel generator train unavailability. This unavailability is directly correlated to the number of hours each train is required to be available based on plant operating conditions. The indicator monitored is the average unavailability over the previous 12 calendar quarters. An NRC increased regulatory response band threshold of >2.5% results in this performance indicator turning white and additional NRC supplemental inspection in this area. Additionally, AmerGen has instituted a lower action threshold value, which will ensure the condition is documented in the corrective action program. This performance indicator is used by the NRC to assess Oyster Creek performance in the Mitigating Systems cornerstone. The NRC risk-informed baseline inspection process is used to supplement the performance indicator. The threshold for the performance indicator provides NRC an objective indication of the need to modify inspection resources or take other regulatory actions based on licensee performance.

In order to gain additional perspective as to why current monitoring practices for safety significant plant equipment render the subject Oyster Creek Technical Specification requirements unnecessary, the following discussion is provided. Assuming that one emergency diesel generator was to incur unavailability at the Reactor Oversight Process threshold level of 2.5% over the monitoring period (12 calendar quarters), this would translate into approximately 9 days of unavailability in a one-year period. In contrast, the existing allowed outage time provision of Technical Specification 3.7.C.2 for emergency diesel generators (seven days in any 30 day period) would potentially allow more than 9 days of unavailability per year. It is clear that current equipment monitoring and management programs such as the Reactor Oversight Process and the Maintenance Rule program, impose higher standards of safety system performance than do certain Technical Specification limits, such as those discussed in this submittal. Therefore, elimination of the 30 day provision of Technical Specifications 3.7.B.1 and 3.7.C.2 can be done without impacting the performance of plant safety equipment, while eliminating unnecessary regulatory burden.

Conclusion

The proposed changes to Oyster Creek Technical Specifications 3.7.B.1 and 3.7.C.2 remove an unnecessary restriction on the periodic occurrences of allowed outage times for entry into limiting conditions of operation for a single startup transformer or a single emergency diesel generator. The existing Technical Specifications 3.7.B.1 and 3.7.C.2 unnecessarily restrict allowed outage time to 7 days in any 30 day period. The 30 day period interval has no basis in the existing Technical Specification or design and licensing basis for Oyster Creek. The proposed change does not change the existing Technical Specification allowed outage time of 7 days for these components, and therefore, does not increase plant risk. During the allowed outage time of 7 days the redundant startup transformer or emergency diesel generator is required to be operable. This requirement ensures that adequate AC power is available to safety related electrical loads in order to safely shutdown the plant and mitigate the consequences of a design basis accident. Overall availability and reliability of the affected components is assured through effective implementation of the Maintenance Rule (10 CFR 50.65) at Oyster Creek. Additionally, monitoring and reporting of the availability of the emergency diesel generators is accomplished through the NRC Reactor Oversight Process Performance Indicator Program. As discussed above, the Maintenance Rule and the Performance Indicator Program are sufficient to control risk. Therefore, this change does not reduce the level of availability or reliability of the Oyster Creek startup transformers or emergency diesel generators.

Consequently, the proposed Technical Specification changes will not adversely affect nuclear safety or safe plant operations.

5.0 REGULATORY ANALYSIS

5.1 No Significant Hazards Consideration

AmerGen has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated ?

Response: No.

The proposed revision to Technical Specifications 3.7.B.1 and 3.7.C.2 to delete the 30 day unavailability period restriction for occurrence of the specified 7 day allowed outage durations for the startup transformers and the emergency diesel generators removes an unnecessary restriction on allowed outage time and component unavailability. This change removes

an unnecessary restriction, which has no defined basis in the existing Technical Specifications or design and licensing basis of the plant. The proposed change does not change the existing Technical Specification allowed outage time of 7 days for these components. During the allowed outage time of 7 days the redundant startup transformer or emergency diesel generator is required to be operable. This requirement ensures that adequate AC power is available to safety related electrical loads in order to safely shutdown the plant and mitigate the consequences of a design basis accident. The startup transformers and the emergency diesel generators at Oyster Creek are not an initiator of any accident. Therefore, this change is not related to the probability of any accident previously evaluated. This change does not impact the design of the onsite AC power system, or the capability of the redundant startup transformer or emergency diesel generator to power the required safety related loads in the event of an accident. Therefore, this change has no affect on the consequences of an accident previously evaluated.

Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. **Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated ?**

Response: No.

The proposed revision to Technical Specifications 3.7.B.1 and 3.7.C.2 to delete the 30 day unavailability period restriction for occurrence of the specified 7 day allowed outage duration for the startup transformers and the emergency diesel generators removes an unnecessary restriction on allowed outage time and component unavailability. This change does not revise the existing Technical Specification allowed outage time of 7 days for these components. During the allowed outage time of 7 days the redundant startup transformer or emergency diesel generator is required to be operable. This requirement ensures that adequate AC power is available to safety related electrical loads in order to safely shutdown the plant and mitigate the consequences of a design basis accident. Overall component availability and reliability is monitored and controlled by effective implementation of the Maintenance Rule (10 CFR 50.65) at Oyster Creek. This change has no affect on the design and operation of plant structures, systems, and components. This change does not introduce any new accident precursors and does not involve any alterations to plant configurations, which could initiate a new or different kind of accident.

Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

Response: No.

The proposed revision to Technical Specifications 3.7.B.1 and 3.7.C.2 to delete the 30 day unavailability period restriction for occurrence of the specified 7 day allowed outage duration for the startup transformers and the emergency diesel generators removes an unnecessary restriction on allowed outage time and component unavailability. The proposed change does not change the existing Technical Specification allowed outage time of 7 days for these components, and therefore, does not increase plant risk. During the allowed outage time of 7 days the redundant startup transformer or emergency diesel generator is required to be operable. This requirement ensures that adequate AC power is available to safety related electrical loads in order to safely shutdown the plant and mitigate the consequences of a design basis accident. Component availability and reliability is maintained in compliance with the Maintenance Rule (10 CFR 50.65) requirements to assure that out of service times do not degrade operational safety over time. The existing Technical Specification requirements in conjunction with implementation of the Maintenance Rule requirements will continue to ensure that the startup transformers and emergency diesel generators will perform their design safety function in accordance with existing margins of safety.

Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above, AmerGen Energy Company, LLC (AmerGen) concludes that the proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

5.2 Applicable Regulatory Requirements/Criteria

10 CFR 50, Appendix A, General Design Criteria (GDC) 17, "Electric power systems," requires, in part, that an onsite electric power system and an offsite electric power system shall be provided to permit functioning of structures, systems, and components important to safety. The safety function for each system (assuming the other system is not functioning) shall be to provide sufficient capacity and capability to assure that (1) specified acceptable fuel design limits and design conditions of the reactor coolant pressure boundary are not exceeded as a result of anticipated operational occurrences and (2) the core is cooled and containment integrity and other vital functions are maintained in the event of postulated accidents.

The capacity of either the Oyster Creek onsite or the offsite electric power system is adequate to accomplish all required safety functions under postulated design basis accident conditions. The proposed change has no impact on the design or operation of the startup transformers or the emergency diesel generators. Therefore, compliance with GDC 17 is maintained.

10 CFR 50, Appendix A, General Design Criteria (GDC) 18, "Inspection and testing of electric power systems," requires, in part, that electric power systems important to safety shall be designed to permit appropriate periodic inspection and testing of important areas and features.

The availability of Oyster Creek electrical power systems is assured through periodic inspection and testing during operation. Each emergency diesel generator is given a thorough inspection at least once per 24 months, during which entry into the Technical Specification 3.7.C.2, 7 day allowed outage time is made. This inspection and maintenance provides additional assurance of emergency diesel generator availability and reliability during plant operation and the proposed change is consistent with this requirement.

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

6.0 ENVIRONMENTAL CONSIDERATION

A review has determined that the proposed amendment would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9).

Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

7.0 PRECEDENT

AmerGen performed a review to identify any other plants with a similar Technical Specification requirement and none were identified.

8.0 REFERENCES

None.

ENCLOSURE 2

Oyster Creek Technical Specification Change Request No. 314

Markup of Proposed Technical Specification Page Changes

Revised TS Page

3.7-2

not to exceed 7 days ~~in any 30 day period~~ if a startup transformer is out of service. None of the engineered safety feature equipment fed by the remaining transformer may be out of service.

2. The reactor may remain in operation for a period not to exceed 7 days if 125 VDC Motor Control Center DC-2 is out of service, provided the requirements of Specification 3.8 are met.

C. Standby Diesel Generators

1. The reactor shall not be made critical unless both diesel generators are operable and capable of feeding their designated 4160 volt buses.

2. If one diesel generator becomes inoperable during power operation, repairs shall be initiated immediately and the other diesel shall be operated at least one hour every 24 hours at greater than 80% rated load until repairs are completed. The reactor may remain in operation for a period not to exceed 7 days ~~in any 30 day period~~ if a diesel generator is out of service. During the repair period none of the engineered safety features normally fed by the operational diesel generator may be out of service or the reactor shall be placed in the cold shutdown condition. If a diesel is made inoperable for biennial inspection, the testing and engineered safety feature requirements described above must be met.

3. If both diesel generators become inoperable during power operation, the reactor shall be placed in the cold shutdown condition.

4. For the diesel generators to be considered operable:

A) There shall be a minimum of 14,000 gallons of diesel fuel in the standby diesel generator fuel tank,

OR

B) To facilitate inspection, repair, or replacement of equipment which would require full or partial draining of the standby diesel generator fuel tank, the following conditions must be met:

1) There shall be a minimum of 14,000 gallons of fuel oil contained in temporary tanker trucks, connected and aligned to the diesel generator fill station.