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An Exelon/British Energy Company

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

10 CFR 50.90

April 6, 2001
2130-01-20060

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

**SUBJECT: OYSTER CREEK GENERATING STATION (OYSTER CREEK)
FACILITY LICENSE NO. DPR-16
DOCKET NO. 50-219
TECHNICAL SPECIFICATION CHANGE REQUEST NO. 296 – DIESEL
GENERATOR STARTING BATTERY SURVEILLANCE**

Dear Sir or Madam:

In accordance with 10 CFR 50.4(b)(1), enclosed is Technical Specification Change Request No. 296.

The purpose of this Technical Specification Change Request is to revise the frequency of the Diesel Generator Starting Battery capacity discharge testing in Technical Specification Section 4.7.B.5 from once per 24 months during a shutdown to once per 24 months during either a plant shutdown or the Diesel Generator 24-month inspection.

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.

NRC approval of the change is requested by April 1, 2002.

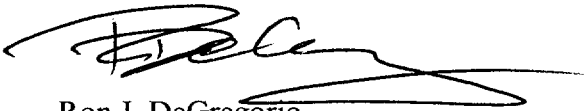
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Page 2

This proposed change to the Technical Specifications has undergone a safety review in accordance with Section 6.5 of the Oyster Creek Technical Specifications.

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

Very truly yours,



Ron J. DeGregorio
Vice President – Oyster Creek

RJD/djd/dr

Enclosures: (1) Oyster Creek Technical Specification Change Request No. 296 Safety
Evaluation and No Significant Hazards Consideration
(2) Affected Oyster Creek Technical Specification Pages

cc H. J. Miller, Administrator, USNRC Region I
H. N. Pastis, USNRC Oyster Creek Senior Project Manager
L. A. Dudes, USNRC Oyster Creek Senior Resident Inspector
File No. 01040

United States of America
Nuclear Regulatory Commission

In the Matter of)

Docket No. 50-219

AmerGen Energy Company, LLC)

Certificate of Service

This is to certify that a copy of Technical Specification Change Request No. 296 for the Oyster Creek Generating Station Operating License, filed with the U.S. Nuclear Regulatory Commission on April 6, 2001, has this 6th day of April 2001 been served on 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 415
Trenton, NJ 08628

By: 

Ron J. DeGregorio
Vice President – Oyster Creek

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AmerGen Energy Company, LLC
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Forked River, NJ 08731-0388

April 6, 2001

Mr. Kent Tosch, Director
Bureau of Nuclear Engineering
Department of Environmental Protection
CN 415
Trenton, NJ 08628

Subject: Oyster Creek Generating Station
Facility License No. DPR-16
Technical Specification Change Request No. 296

Dear Mr. Tosch:

Enclosed is one copy of Technical Specification Change Request No. 296 for the Oyster Creek Generating Station Operating License.

This document was filed with U.S. Nuclear Regulatory Commission on April 6, 2001.

Very truly yours,



Ron J. DeGregorio
Vice President – Oyster Creek

Enclosure

Ron J. DeGregorio
Vice President

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AmerGen Energy Company, LLC
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P.O. Box 388
Forked River, NJ 08731-0388

April 6, 2001

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

Subject: Oyster Creek Generating Station
Facility License No. DPR-16
Technical Specification Change Request No. 296

Dear Mayor:

Enclosed is one copy of Technical Specification Change Request No. 296 for the Oyster Creek Generating Station Operating License.

This document was filed with U.S. Nuclear Regulatory Commission on April 6, 2001.

Very truly yours,



Ron J. DeGregorio
Vice President – Oyster Creek

Enclosure

Oyster Creek Generating Station


Facility Operating License
No. DPR-16

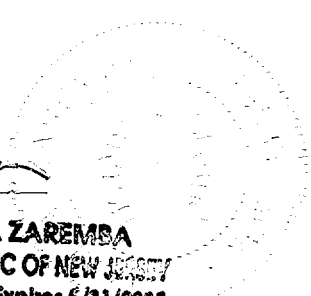
Technical Specification Change
Request No. 296
Docket No. 50-219

Applicant submits by this Technical Specification Change Request No. 296 to the Oyster Creek Generating Station Operating License a change to Specification 4.7

By: 
Ron J. DeGregorio
Vice President – Oyster Creek

Sworn to and subscribed before me this 6th day of April 2001.


Notary Public
MARITA ZAREMBA
NOTARY PUBLIC OF NEW JERSEY
Commission Expires 6/31/2005



Enclosure 1

Oyster Creek Technical Specification Change Request No. 296

Safety Evaluation

And

No Significant Hazards Determination

I. Technical Specification Change Request No. 296

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

Revised Technical Specification Pages: 4.7-1, 4.7-2, 4.7-3 and 4.7-4

Marked up pages showing the requested changes are provided in Enclosure 2.

II. Reason for Change

The existing Oyster Creek Technical Specification Section 4.7.B.5 requires capacity testing of the Station Batteries and the Diesel Generator Starting Batteries at least once per 24 months during a plant shutdown. The proposed amendment request will allow the 24-month capacity test for the Diesel Generator Starting Batteries to be performed during plant shutdowns or during the 24-month on-line Diesel Generator inspection (Technical Specification 4.7.A.3). The proposed revision to Section 4.7.B.5.b also reflects this change in specified frequency.

Additionally, Technical Specification 4.7.A.5 is revised to delete the statement that the battery capacity test need not be performed if the installed batteries were replaced during the previous Diesel Generator on-line biennial inspection. This exception is no longer necessary since the battery capacity testing is not restricted to refueling outages based on the proposed change to Section 4.7.B.5.

Technical Specification 4.7.B.5.a is revised to delete the phrase "...to be considered operable" since all of the specified surveillances constitute operability criteria. The title of Section 4.7.B is revised to identify applicability to the Diesel Generator Starting Batteries. These additional proposed revisions are considered administrative changes, which clarify the existing Technical Specification.

Technical Specification 4.7 Bases is also revised to reflect the above specification changes. Section 4.7 Bases contained on page 4.7-3 are being relocated to Bases page 4.7-4. This relocation of the Bases is a purely administrative change.

III. Safety Evaluation Justifying Change

The proposed change allows the Diesel Generator Starting Battery capacity test to be performed during plant shutdowns or during the on-line Diesel Generator 24-month inspection (Technical Specification 4.7.A.3). Technical Specifications allow one (1) Diesel Generator to be removed from service for up to seven (7) days. Typically the

battery capacity testing specified in Technical Specification 4.7.B.5.a and recharging can be completed within three (3) days. This change does not revise the specified frequency of battery testing. Since the Diesel Generator will already be out of service for the 24-month inspection required by Technical Specification 4.7.A.3, adding starting battery testing to the 24-month Diesel Generator inspection outage will not affect Diesel Generator availability. The ability of the Diesel Generator to perform its safety function is not affected by this change. The frequency of starting battery capacity testing is not changing, only when it will be performed. Therefore, the performance of the battery is not affected by the change. If the battery test is not satisfied within the 7-day allowed Diesel Generator outage time, the plant must be shutdown.

The proposed amendment does not change any system, structure or component configuration within the plant or alter any system or component performance capability. The proposed change will result in a decrease or elimination of Diesel Generator unavailability due to battery testing during refueling outages or other plant shutdowns.

Therefore, it is concluded that the proposed Technical Specification changes do not adversely affect nuclear safety or safe plant operations.

IV. No Significant Hazards Determination

AmerGen has determined that this Technical Specification Change Request poses no significant hazards considerations as defined by 10 CFR 50.92.

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

The change to allow the batteries to be tested during the 24-month Diesel Generator inspection outage does not increase the probability of occurrence of an accident previously evaluated. No change is being made to equipment, equipment operation, or equipment requirements. If a Diesel Generator battery were to fail during the 24-month inspection, the availability of the Diesel Generator will not be affected because the Diesel Generator will already be out of service for the inspection. The change will allow the Diesel Generator out of service time during refueling outages to be reduced or eliminated, thereby reducing risk.

The change to allow the batteries to be tested during the 24-month Diesel Generator inspection outage does not increase the consequences of an accident previously evaluated. No change is being made to equipment, equipment

operation, or equipment requirements. If a Diesel Generator battery were to fail during the 24-month inspection, the consequences of the battery failing are not affected.

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

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

The change to allow the batteries to be tested during the 24-month Diesel Generator inspection outage does not create the possibility of a new or different kind of accident from any previously evaluated. Moving the testing will not create a new possible failure type, it will only move the detection of a battery failure from the refueling outage to the 24-month Diesel Generator inspection outage.

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

3. The proposed change does not involve a significant reduction in a margin of safety.

The change to allow the batteries to be tested during the 24-month Diesel Generator inspection outage does not reduce a margin of safety. Since the Diesel Generator will already be out of service for the 24-month inspection, the margin of safety for the Diesel Generator 24-month inspection outage will not be affected. The change will allow the Diesel Generator out of service time during the refueling outage to be reduced or eliminated, thereby increasing the margin of safety during the refueling outage.

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

V. Information Supporting an Environmental Assessment

An environmental assessment is not required for the proposed change since the proposed change conforms to the criteria for "actions eligible for categorical exclusion" as specified in 10 CFR 51.22(c)(9). The proposed change will have no impact on the environment. The proposed change does not involve significant hazards as discussed in

the preceding section. The proposed change does not involve a significant change in the types or significant increase in the amounts of any effluents that may be released off-site. In addition, the proposed change does not involve a significant increase in individual or cumulative occupational radiation exposure.

VI. Conclusion

The proposed change has been reviewed in accordance with Section 6.5 of the Oyster Creek Technical Specifications, and it has been concluded that this change requires NRC approval. As discussed above, using the standards in 10 CFR 50.92, AmerGen has determined that there are no significant hazards involved with the proposed change.

AmerGen requests that the amendment authorizing this change be effective immediately upon issuance and implemented within 30 days of issuance.

Enclosure 2

Oyster Creek Technical Specification Change Request No. 296

Affected Technical Specification Pages

4.7 AUXILIARY ELECTRICAL POWER

Applicability: Applies to surveillance requirements of the auxiliary electrical supply.

Objective: To verify the availability of the auxiliary electrical supply.

Specification:

A. Diesel Generator

1. Each diesel generator shall be started and loaded to not less than 80% rated load every two weeks.
2. The two diesel generators shall be automatically actuated and functionally tested during each refueling outage. This shall include testing of the diesel generator load sequence timers listed in Table 3.1.1.
3. Each diesel generator shall be given a thorough inspection at least once per 24 months.
4. The diesel generators' fuel supply shall be checked following the above tests.
5. The diesel generators' starting batteries shall be tested and monitored ~~the same as the station batteries, Specification 4.7.B. The battery capacity test need not be performed if the installed batteries were replaced during the previous biennial inspection.~~ *per*

B. Station Batteries *and Diesel Generator Starting Batteries*

1. Weekly surveillance will be performed to verify the following:
 - a. The active metallic surface of the plates shall be fully covered with electrolyte in all batteries.
 - b. The designated pilot cell voltage is greater than or equal to 2.09 volts for Station Battery B and 2.0 volts for Station Battery C while the respective battery is on a float charge.
 - c. The overall battery voltage is greater than or equal to 125.4 volts for Station Battery B and 120 volts for Station Battery C while the respective battery is on a float charge. (Diesel battery; 112 volts).
 - d. The pilot cell specific gravity, corrected to 77° F, is greater than or equal to 1.190.

2. Quarterly Surveillance will be performed to verify the following:
 - a. The active metallic surface of the plates shall be fully covered with electrolyte in all batteries.
 - b. The voltage of each connected cell is greater than or equal to 2.09 volts for Station Battery B and 2.0 volts for Station Battery C while the respective battery is on a float charge.
 - c. The specific gravity, for each tenth cell, is greater than or equal to 1.190 when corrected to 77° F. The specific gravity and electrolyte temperature of every tenth cell (Diesel; every fourth cell) shall be recorded for surveillance review.
3. Annual surveillance will be performed to verify the following:
 - a. The active metallic surface of the plates shall be fully covered with electrolyte in all batteries.
 - b. The voltage of each connected cell is greater than or equal to 2.09 volts for Station Battery B and 2.0 volts for Station Battery C while the respective battery is on a float charge.
 - c. The specific gravity for each cell is greater than or equal to 1.190 when corrected to 77° F. The electrolyte temperature and specific gravity for every cell shall be recorded for surveillance review.
4. At least once per 12 months, the diesel generator battery capacity shall be demonstrated to be able to supply the design duty loads (diesel start) during a battery service test.
5. At least once per 24 months ~~during a shutdown~~, the following tests will be performed to verify battery capacity:
 - a. Battery capacity shall be demonstrated to be at least 80% of the manufacturers' rating when subjected to a battery capacity discharge test, ~~to be considered operable~~.

Oyster Creek

4.7-2

Amendment No. ~~142, 189~~ 197

(Perform during plant shutdowns for Station Batteries B and C. Perform during plant shutdowns or during the 24-month Diesel Generator inspections for the Diesel Generator Starting Batteries.)

- If Station Battery B or C
- b. ~~Any battery which~~ is demonstrated to have less than 85% of manufacturers ratings during a capacity discharge test shall be replaced during the subsequent refueling outage. If a Diesel Generator ^{it} Starting Battery is demonstrated to have less than 85% of manufacturers ratings during a capacity discharge test, it shall be replaced within 2 years.
- c. Station battery capacity shall be demonstrated to be able to supply the design duty cycle loads during a battery service test.

Basis: The biweekly tests of the diesel generators are primarily to check for failures and deterioration in the system since last use. The manufacturer has recommended the two week test interval, based on experience with many of their engines. One factor in determining this test interval (besides checking whether or not the engine starts and runs) is that the lubricating oil should be circulated through the engine approximately every two weeks. The diesels should be loaded to at least 80% of rated load until engine and generator temperatures have stabilized (about one hour). The minimum 80% load will prevent soot formation in the cylinders and injection nozzles. Operation up to an equilibrium temperature ensures that there is no over-heat problem. The tests also provide an engine and generator operating history to be compared with subsequent engine-generator test data to identify and correct any mechanical or electrical deficiency before it can result in a system failure.

Move to
next page.

The test during refueling outages is more comprehensive, including procedures that are most effectively conducted at that time. These include automatic actuation and functional capability tests, to verify that the generators can start and assume load in less than 20 seconds and testing of the diesel generator load sequence timers which provide protection from a possible diesel generator overload during LOCA conditions. Thorough inspections will detect any signs of wear long before failure.

The manufacturer's instructions for battery care and maintenance with regard to the floating charge, the equalizing charge, and the addition of water will be followed. In addition, written records will be maintained of the battery performance. Station batteries will deteriorate with time, but precipitous failure is unlikely. The station surveillance procedures follow the recommended maintenance and testing practices of IEEE STD. 450 which have demonstrated, through experience, the ability to provide positive indications of cell deterioration tendencies long before such tendencies cause cell irregularity or improper cell performance.

The battery service test is a special capacity test to demonstrate the capability of the battery to meet the system design requirements. The Oyster Creek design duty cycle loads are determined by a LOCA subsequent to a loss of AC power. The battery performance test is a capacity test on the battery to check it against the manufacturer's specified capacity and is used to determine when the battery has arrived at the end of its life.

IEEE Standard 450-1975 recommends battery performance testing once per five years. IEEE Standard 308-1974 recommends battery performance testing once per three years. The Oyster Creek Technical Specifications require a performance test once per two years. Both IEEE Standards recommend decreasing the surveillance interval to annually when battery capacity falls below 85% of rated.

The diesel generator batteries are challenged every two weeks to perform the 80% load test. This effectively performs an uninstrumented battery service test. The biweekly diesel start, when combined with the annual battery service test, provides an extensive amount of data on battery performance characteristics. This test data negates the need to lower the battery performance test interval from biennial to annually.

The station batteries are required for plant operation, and performing the station battery performance test requires the reactor to be in COLD SHUTDOWN. The guidance in IEEE 450-1975 would result in 3 performance tests to reach 85% service life, followed by 3 performance tests to complete battery life. The guidance in IEEE 308-1974 would result in 5 performance tests to reach 85% service life, followed by 3 performance tests to complete battery life. The Oyster Creek Technical Specifications require 8 performance tests to reach 85% service life, followed by 2 performance tests to complete battery life. The requirement which would result in a reactor shutdown for the sole purpose of performing a battery performance test during the last 15% of battery life cannot be justified to increase battery test performance from 2 to 3 in a 3-year period. Additionally, the increase in battery performance testing during the first 85% of battery service life would result in a greater level of battery reliability by identifying, and causing to be corrected, small anomalies in cell performance thereby reducing battery failure probability.

The diesel batteries shall be tested and monitored in accordance with the requirements of Specification 4.7.B to ensure their viability. ~~If the diesel batteries are replaced with pre-tested batteries during the biennial inspection of the diesels, the battery capacity discharge test need not be performed.~~

or within 2 years

The requirement to replace any battery in the next refueling outage which demonstrates less than 85% of manufacturers capacity during a capacity discharge test provides additional assurance of continued battery operability.