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10 CFR 50.90

RA-10-027
June 25, 2010

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

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

Subject: Technical Specification Change Request No. 356
Elimination of Daily Testing of an Operable Emergency Diesel Generator (EDG) when the other EDG is Declared Inoperable

In accordance with the provisions of 10 CFR 50.90, "Application for amendment of license, construction permit, or early site permit," Exelon Generation Company, LLC (Exelon) is submitting a request for an amendment to the Technical Specifications (TS), Appendix A of the Renewed Facility Operating License No. DPR-16 for Oyster Creek Nuclear Generating Station (OCNGS).

The proposed TS amendment would eliminate the daily surveillance requirement to test the operable EDG when the other EDG is declared inoperable.

Attachment 1 provides the Evaluation of Proposed Technical Specification Changes. Attachment 2 provides the Proposed Technical Specification marked-up page. Attachment 3 provides the Proposed Technical Specification Bases marked-up page, for information only.

The proposed changes have been reviewed by the OCNGS Plant Operations Review Committee and approved in accordance with Nuclear Safety Review Board procedures.

There are no regulatory commitments contained in this letter.

Exelon requests approval of the proposed license amendment by June 25, 2011, with the amendment being implemented within 60 days.

Using the standards in 10 CFR 50.92, Exelon 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).

In accordance with 10 CFR 50.91, "Notice for public comment; State consultation," paragraph (b), Exelon is notifying the State of New Jersey of this application for changes to the TS and Operating License by transmitting a copy of this letter and its attachments to the designated state official.

Should you have any questions concerning this letter, please contact Frank Mascitelli at (610) 765-5512.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 25th day of June 2010.

Respectfully,

96K

Pamela B. Cowan
Director - Licensing & Regulatory Affairs
Exelon Generation Company, LLC

Attachments:
1) Evaluation of Proposed Technical Specification Changes
2) Proposed Technical Specification marked-up page
3) Proposed Technical Specification Bases marked-up page (for information only)

cc: Regional Administrator, Region I, USNRC
USNRC Project Manager, Oyster Creek
USNRC Senior Resident Inspector, Oyster Creek
Director, Bureau of Nuclear Engineering, New Jersey Department of Environmental Protection
Mayor of Lacey Township

ATTACHMENT 1

Evaluation of Proposed Technical Specification Changes

Technical Specification Change Request No. 356
Elimination of Daily Testing of an Operable Emergency Diesel Generator (EDG) when the other EDG is Declared Inoperable

ATTACHMENT 1

EVALUATION OF PROPOSED TECHNICAL SPECIFICATION CHANGES

Technical Specification Change Request No. 356
Elimination of Daily Testing of an Operable Emergency Diesel Generator (EDG)
when the other EDG is Declared Inoperable

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1.0 SUMMARY DESCRIPTION

This evaluation supports a request to amend Operating License DPR-16 for Oyster Creek Nuclear Generating Station (OCNGS).

The proposed changes would modify the Technical Specification (TS) testing requirements for Emergency Diesel Generators (EDGs) with the objective of improving EDG reliability by reducing potential equipment degradation due to excessive testing. The changes are consistent with NRC regulatory guidance presented in Generic Letter (GL) 93-05, "Line-Item Technical Specifications Improvement to Reduce Surveillance Requirements for Testing During Power Operation" (Reference 1), GL 94-01, "Removal of Accelerated Testing and Special Reporting Requirements for Emergency Diesel Generators" (Reference 2), and NUREG-1433, "Standard Technical Specifications, General Electric Plants, BWR/4" (Reference 3). These changes implement a recommendation promulgated in NUREG-1366, "Improvements To Technical Specifications Surveillance Requirements" (Reference 4) that the number of diesel generator tests be greatly curtailed.

Exelon Generation Company, LLC (Exelon) requests approval of the proposed changes. Once approved, the amendment shall be implemented within 60 days.

2.0 DETAILED DESCRIPTION

The OCNGS 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 offsite transmission system via the 34.5 kV Oyster Creek substation. Two separate and independent EDGs are provided as the redundant onsite Standby Power Supplies for safety related equipment.

Upon loss of the turbine generator during normal operation the plant loads are automatically transferred to the startup transformers. If this automatic transfer fails, or if offsite power is not available, two standby EDGs are available to power the two essential 4160V electrical busses. The two EDGs are designed to start automatically and to provide power for all necessary auxiliaries important to plant safety. The two EDGs are physically independent of any normal power system. They are also independent of each other, with the exception of a common bulk fuel storage supply.

The reliability of the EDGs during normal plant operation is verified by routine surveillance testing specified in Surveillance Requirements TS 4.7.A. In addition to these routine surveillance tests, TS 3.7.C.2 requires the operable EDG to be tested at least one hour every 24 hours when the other EDG is declared inoperable. The purpose of the latter testing is to verify that there is no common cause problem that could affect the remaining EDG and to provide additional assurance that the EDG is, in fact, operable during those conditions when it might be called upon. While the additional testing described above provides daily assurance that the EDG is operable, the demands of testing cause additional wear on the EDG components. Operating

experience has shown that the TSs have required EDG testing when there was clearly no reason to believe that common cause failure was a possibility. Such testing does not contribute to improved EDG reliability and is actually detrimental to mechanical and electrical components. As identified in NUREG-1366, studies have shown that excessive testing is a contributor to an overall reduction in the reliability of an EDG to start and perform its intended function. In view of these considerations, OCNGS is proposing a change to TS 3.7.C.2 that would eliminate unnecessary EDG testing when the other EDG is declared inoperable.

No verification of operability of the operable EDG will be required if the other EDG was removed from service due to causes from an independently testable component, preplanned maintenance, or testing. Additionally, the proposed changes would eliminate daily EDG testing in the event of an inoperable EDG from any cause other than listed above, provided an evaluation determines the absence of a potential common cause failure condition. TS 3.7.C.2 will be modified such that the operable EDG must be evaluated for a common cause failure within 24 hours of the declaration of an inoperable EDG. If the result of the evaluation shows that there is no common cause failure potential, then the operable EDG does not need to be tested. If a common cause failure is suspected, then the EDG will be verified to be operable by testing within 24 hours to confirm that a common cause failure does not exist. Upon successful demonstration of EDG operability, additional testing is not required.

TS 3.7.C.2 existing wording:

> "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 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."

TS 3.7.C.2 is proposed to be changed to:

> "If one diesel generator becomes inoperable during power operation:
>
> a. Repairs shall be initiated immediately.
>
> b. The reactor may remain in operation for a period not to exceed 7 days.
>
> c. During the diesel generator out-of-service 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.

d. When the inoperable diesel is due to any cause other than an independently testable component, preplanned maintenance, or testing, verify the OPERABILITY of the remaining operable diesel generator within 24 hours by:

1. Determining the remaining OPERABLE diesel generator is not inoperable due to common cause failure,

OR

2. Operating the remaining OPERABLE diesel generator at least one hour at greater than 80% rated load."

TS Bases page 3.7-4b existing paragraph wording:

"The probability analysis in Appendix "L" of the FDSAR was based on one diesel and shows that even with only one diesel the probability of requiring engineered safety features at the same time as the second diesel fails is quite small. The analysis used information on peaking diesels when synchronization was required which is not the case for Oyster Creek. Also the daily test of the second diesel when one is temporarily out of service tends to improve the reliability as does the fact that synchronization is not required."

Is proposed to be changed to:

"The probability analysis in Appendix "L" of the FDSAR was based on one diesel and shows that even with only one diesel the probability of requiring engineered safety features at the same time as the second diesel fails is quite small. The analysis used information on peaking diesels when synchronization was required which is not the case for Oyster Creek."

3.0 TECHNICAL EVALUATION

TS 3.7.C.2 action for an inoperable EDG presently requires testing of the other EDG at least one hour every 24 hours without consideration of the nature of the failure. The intent of increased testing is to determine if the failure of an EDG is indicative of a common cause failure that may impact operability of the other EDG, and to provide an increased level of assurance that the redundant EDG is not concurrently inoperable. The proposed changes would remove the daily testing requirement for the operable EDG if the other EDG was removed from service due to causes from an independently testable component, preplanned maintenance, or testing. The proposed changes would also remove the daily testing requirement of the operable EDG, if the other EDG was removed from service for any cause other than listed above, provided an evaluation is performed that determines that a potential common cause failure does not exist for the EDGs. If the evaluation determines that a potential common cause failure does not exist, unnecessary testing of the other EDG can be avoided. If a common cause failure is suspected, then the EDG will be verified to be operable by testing within 24 hours to confirm that a common cause failure does not exist. Upon successful verification of EDG operability, additional testing is not required.

This amendment is intended to increase EDG reliability and the overall level of plant safety by reducing the stresses on the EDGs caused by unnecessary testing. The proposed changes are consistent with the EDG surveillance requirement recommendations of GL 93-05, Enclosure 1, "Guidance for Implementing Line-Item Technical Specifications Improvements to Reduce Testing during Power Operation."

Enclosure 1 Line Item 10.1 recommends when an EDG is inoperable (not including a support system or independently testable component), the other EDG should be tested once unless the absence of any potential common cause failure can be verified.

The proposed changes are consistent with NUREG-1433, LCO 3.8.1.B and SR 3.8.1.2 requirements. LCO 3.8.1.B (one EDG inoperable) requires action to determine that the operable EDG is not inoperable due to a common cause or perform SR 3.8.1.2 (verify EDG starts from standby conditions and achieves steady state voltage and frequency).

The proposed changes are consistent with GL 94-01, which advises that licensees may request license amendments to remove accelerated testing and special reporting requirements for EDGs. OCNGS implements a maintenance program for monitoring and maintaining EDG performance that is in accordance with the provisions of 10 CFR 50.65, "Requirements for monitoring the effectiveness of maintenance at nuclear power plants" and that is consistent with the guidance of RG 1.160, "Monitoring the Effectiveness of Maintenance at Nuclear Power Plants."

The proposed changes are consistent with NUREG-1366, which recommends that the requirements to test the remaining diesel generator, when one diesel generator is inoperable due to any cause other than preplanned preventative maintenance or testing, be limited to those situations where the cause for inoperability has not been conclusively demonstrated to preclude the potential for a common cause failure. When such testing is required, the NUREG-1366 recommends that it should be performed within 8 hours. The proposal to perform the test within 24 hours is more consistent with current industry standards and improved standard technical specifications bases (NUREG 1433 Bases) which states in B 3.8.1 that according to Generic Letter 84-15, 24 hours is a reasonable time to confirm that the operable diesel generators are not affected by the same problem as the inoperable diesel generator.

These proposed changes would eliminate the requirement for EDG testing when the inoperability is not due to a common cause failure and will thereby potentially increase EDG reliability by reducing the stresses on the EDG caused by unnecessary testing while maintaining the requirement to perform a single test if a common cause failure potentially exists. After the single test is performed, the requirement to perform repetitive tests at least one hour every 24 hours thereafter would be deleted. The additional daily tests are considered unnecessary since the ability of the EDGs to supply their rated outputs is adequately verified by the routine surveillance tests required by the other portions of TS 4.7.A, which are not being changed by this proposed amendment.

In addition, in a previous OCNGS License Amendment 197 (Reference 5), the Safety Evaluation Report (SER), dated 9/8/98, stated in Section 2.3, Deterministic Evaluation:

> "It should be noted that testing the operable EDG every day for the duration of the EDG inspection (i.e., 7 days) may be too excessive and it may lead to degradation of the EDG and possibly result in potential for unnecessary shutdowns. The staff encourages the licensee to submit changes to the EDG TS to reduce the EDG testing requirements."

OCNGS recently received a 20-year extension to its operating license. Reducing engine wear and stresses by reducing excessive EDG testing will ensure continued high EDG reliability throughout the license extension period.

TS 3.7.C.2 also requires that daily testing requirements of the remaining operable EDG be applicable when the other EDG is made inoperable for its biennial inspection. The proposed changes delete this requirement, which is consistent with NUREG-1433, LCO 3.8.1.B requirements.

The TS bases section on page 3.7-4b is being revised to remove the statement that daily testing of the second diesel when one is temporarily out of service tends to improve the reliability as does the fact that synchronization is not required. Operating experience has shown that daily testing increases engine wear and does not improve reliability. The statement involving synchronization is adequately addressed in the previous sentence and, therefore, should also be removed.

4.0 REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements/Criteria

The proposed changes have been evaluated to determine whether applicable regulations and requirements continue to be met. Exelon has determined that the proposed changes do not require any exemptions or relief from regulatory requirements. The following applicable regulations and regulatory requirements were reviewed in making this determination:

Codes:

10 CFR 50.36, paragraph (c)(2)(ii)(C), Criterion 3:

> 10 CFR 50.36, paragraph (c)(2)(ii)(C), Criterion 3 states that a technical specification limiting condition for operation of a nuclear reactor must be established for systems that are part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.
>
> The proposed changes involve the onsite power system that is required by 10 CFR 50, Appendix A, General Design Criterion (GDC) 17, to provide the independence and redundancy to ensure an available source of power to the systems identified in Criterion 3 above. The proposed changes are associated with the accelerated testing requirements of the EDGs when one EDG is declared inoperable. The changes will eliminate unnecessary EDG testing

requirements that contribute to potential mechanical degradation of the EDGs. The changes are based on the NRC guidance and recommendations provided in GL 93-05 and GL 94-01, and are consistent with NUREG-1433.

10 CFR 50 Appendix A, GDC 17, "Electric power systems:"

GDC 17 states 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 onsite electric power supplies, including the batteries, and the onsite electric distribution system, shall have sufficient independence, redundancy, and testability to perform their safety functions assuming a single failure.

The proposed changes do not affect the capacity of either the onsite or the offsite electric power system to adequately accomplish all required safety functions under postulated Design Basis Accident conditions. The onsite distribution system, in conjunction with the offsite power source and the voltage regulators that are installed on the 34.5 kV primary side of the startup transformers, is capable of providing acceptable voltage under worst case station electric load and grid voltages. The station batteries are redundant as are the distribution systems for both ac and dc power.

Separation of equipment and wireways has been maintained insofar as practicable to make the redundant distribution systems immune to localized damage.

Physical independence of motive and control power for services required for safe shutdown under accident conditions is attained as follows:

a. 4160 volt power cables are run in independent steel enclosures and follow separate routes to redundant equipment.

b. Controls for redundant power equipment are run in separate raceways.

c. Power cables from the two 480 volt emergency ac switchgear lineups are run in separate raceways.

10 CFR 50 Appendix A, GDC 18, "Inspection and testing of electric power systems:"

GDC 18 states that electric power systems important to safety shall be designed to permit appropriate periodic inspection and testing of important areas and features, such as wiring, insulation, connections, and switchboards, to assess the continuity of the systems and the condition of their components. The systems

shall be designed with a capability to test periodically (1) the operability and functional performance of the components of the systems, such as onsite power sources, relays, switches, and buses, and (2) the operability of the systems as a whole and, under conditions as close to design as practical, the full operation sequence that brings the systems into operation, including operation of applicable portions of the protection system, and the transfer of power among the nuclear power unit, the offsite power system, and the onsite power system.

The proposed changes do not affect the availability of electrical power that is assured through periodic inspection and testing during operation. Periodic verification of the operability of power available monitors is possible and the status of each power supply, i.e., voltage, frequency and presence of grounds (on ungrounded systems), is continually indicated. Individual circuits of the energize-to-operate safeguards systems have loss of control power annunciation. The proposed changes do not change the periodic testing requirements. The proposed changes remove the requirements for accelerated testing of the operable diesel generator when the other diesel generator is declared inoperable.

Relevant Guidance:

Regulatory Guide 1.9, "Selection, Design, Qualification, and Testing of Emergency Diesel Generator Units used as Class 1E Onsite Electrical Power Systems at Nuclear Power Plants" (Reference 6):

RG 1.9 provides explicit guidance in the areas of preoperational testing, periodic testing, reporting and recordkeeping requirements, and valid demands and failures. The preoperational and periodic testing provisions set forth in this guide provide a basis for taking the corrective actions needed to maintain high inservice reliability of installed emergency diesel generators.

RG 1.9 was not the criteria used for assessing the adequacy of the EDGs for Oyster Creek. For the operating license, a review (FDSAR Amendment #68) was made of the recommendations in Atomic Energy Commission (AEC) Safety Guide 9 (Reference 7) against the actual plant installation. The loading of the emergency diesel generators was within the continuous duty rating which met the criteria of AEC Safety Guide 9.

Based on a review against AEC Safety Guide 9, the diesel generator capacity is more than adequate to support the loads necessary to assure that the fuel cladding temperature limits are not exceeded, and that the core is cooled and contained. This is so even in the event of a Loss-of-Coolant Accident and a simultaneous Loss of Offsite Power. The proposed changes do not impact the status of AEC Safety Guide 9 compliance.

NRC's Systematic Evaluation Program (NUREG-0822) documents the NRC's assessment of the EDGs.

4.2 Precedent

Limerick Generating Station, Units 1 and 2 and Nine Mile Point Nuclear Station, Unit 1 have been issued approved TS amendments for eliminating similar accelerated EDG testing requirements (References 8 and 9).

4.3 No Significant Hazards Consideration

Exelon 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 amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

   Response: No.

   The proposed changes are associated with the testing requirements of the two Emergency Diesel Generators (EDGs). The changes will eliminate unnecessary EDG testing requirements that contribute to potential mechanical degradation of the EDGs. The changes are based on the NRC guidance and recommendations provided in Generic Letter (GL) 93-05, "Line-Item Technical Specifications Improvement to Reduce Surveillance Requirements for Testing During Power Operation," and GL 94-01, "Removal of Accelerated Testing and Special Reporting Requirements for Emergency Diesel Generators," and are consistent with NUREG-1433, "Standard Technical Specifications, General Electric Plants, BWR/4." These proposed changes implement a recommendation promulgated in NUREG-1366, "Improvements To Technical Specifications Surveillance Requirements" to curtail daily testing of remaining operable diesel generator when one of the required diesel generators is inoperable except for when a valid concern (e.g., potential for common cause failure) is posed.

   The probability of an accident is not increased by these changes because the EDGs are not initiators of any design basis event. Additionally, the proposed changes do not involve any physical changes to plant systems, structures, or components (SSC), or the manner in which these SSC are operated, maintained, or controlled. The consequences of an accident will not be increased because the proposed changes to the EDG surveillance requirements will continue to provide a high degree of assurance that their operability is maintained.

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

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

   Response: No.

The proposed changes do not alter the physical design, safety limits, or safety analysis assumptions associated with the operation of the plant. Accordingly, the proposed changes do not introduce any new accident initiators, nor do they reduce or adversely affect the capabilities of any plant structure or system in the performance of their safety function.

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

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

Response: No.

The proposed changes modify the EDG accelerated testing requirements, are consistent with NRC guidance, and improve EDG reliability. There are no changes being made to the current periodic surveillance requirements. The proposed changes do not impact the assumptions of any design basis accident, and do not alter assumptions relative to the mitigation of an accident or transient event.

Testing the operable EDG every day for the duration of the inoperable EDG inspection (i.e., 7 days) may be too excessive and may lead to degradation of the EDG and possibly result in potential for unnecessary shutdowns. By reducing the possibility of degradation from this excessive testing, the margin of safety is increased.

Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

Based on the above, Exelon concludes that the proposed amendment does not involve a 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.

4.4 Conclusions

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.

5.0 ENVIRONMENTAL CONSIDERATION

The proposed changes are expected to result in an overall reduction in environmental effects due to less required engine run hours resulting in less airborne effluents being released.

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.

6.0 REFERENCES

1. NRC Generic Letter 93-05, "Line Item Technical Specifications Improvement to Reduce Surveillance Requirements for Testing During Power Operation," dated September 27, 1993

2. NRC Generic Letter 94-01, "Removal of Accelerated Testing and Special Reporting Requirements for Emergency Diesel Generators," dated May 31, 1994

3. NUREG-1433, Rev 3.1, "Standard Technical Specifications General Electric Plants, BWR/4," LCO 3.8.1.B and SR 3.8.1.2

4. NUREG-1366, "Improvements to Technical Specifications Surveillance Requirements," dated December 1992

5. Oyster Creek-Issuance of Amendment No. 197 Re: Modification of Emergency Diesel Generator Inspection Requirements (TAC NO. M94856), dated September 8, 1998

6. NRC Regulatory Guide 1.9, "Selection, Design, Qualification, and Testing of Emergency Diesel Generator Units used as Class 1E Onsite Electrical Power Systems at Nuclear Power Plants," various revisions

7. AEC Safety Guide 9, "Selection of Diesel Generator Set Capacity for Standby Power Supplies," dated March 10, 1971

8. Limerick Generating Station, Units 1 and 2 – Issuance of Amendment Re: Changes to Technical Specification Emergency Diesel Generator Testing Requirements (TAC NOS. MD3710 and MD3711), dated November 16, 2007 (ML072760080)

9. Issuance of Amendment for Nine Mile Point Nuclear Station, Unit 1 (TAC NO. M88629), dated April 6, 1994 (ML011070067)

ATTACHMENT 2

Oyster Creek Nuclear Generating Station
Renewed Facility Operating License No. DPR-16

Proposed Technical Specification marked-up page

P 3.7-2

4. Station batteries B and C and an associated battery charger are OPERABLE. Switchgear control power for 4160 volt bus 1D and 460 volt buses 1B2 and 1B3 is provided by 125 VDC Distribution Center DC-B. Switchgear control power for 4160 volt bus 1C and 460 volt buses 1A2 and 1A3 is provided by 125 VDC Distribution Center DC-C.

5. Bus tie breakers ED and EC are in the open position.

B. The reactor shall be PLACED IN the COLD SHUTDOWN CONDITION if the availability of power falls below that required by Specification A above, except that

1. The reactor may remain in operation for a period not to exceed 7 days 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.

3. The reactor may remain in operation provided the requirements of Specification 3.7.D 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 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.

INSERT A

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.

Insert A:

If one diesel generator becomes inoperable during power operation:

a. Repairs shall be initiated immediately.

b. The reactor may remain in operation for a period not to exceed 7 days.

c. During the diesel generator out-of-service 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.

d. When the inoperable diesel is due to any cause other than an independently testable component, preplanned maintenance, or testing, verify the OPERABILITY of the remaining operable diesel generator within 24 hours by:

1. Determining the remaining OPERABLE diesel generator is not inoperable due to common cause failure,

OR

2. Operating the remaining OPERABLE diesel generator at least one hour at greater than 80% rated load.

ATTACHMENT 3

Oyster Creek Nuclear Generating Station
Renewed Facility Operating License No. DPR-16

Proposed Technical Specification Bases marked-up page
(for information only)

P 3.7- 4b

test in accordance with manufacturers' recommendation are taken from Annex D of IEEE Standard 450-1995. They are performed following the restoration of the electrolyte level to above the top of the plates. Based on the results of the manufacturer's recommended testing, the battery may have to be declared inoperable and the affected cell(s) replaced.

Per Action 3.7.D.2.d, with one station battery with pilot cell temperature less than the minimum established design limits, 12 hours is allowed to restore the temperature to within limits. A low electrolyte temperature limits the current and power available. Since the battery is sized with margin, while battery capacity is degraded, sufficient capacity exists to perform the intended function and the affected battery is not required to be considered inoperable solely as a result of the pilot cell temperature not met.

Per Action 3.7.D.2.e, with both station batteries with battery parameters not within limits there is not sufficient assurance that battery capacity has not been affected to the degree that the batteries can still perform their required function, given that both safety related station batteries are involved. With both safety related station batteries involved, this potential could result in a total loss of function on multiple systems that rely upon the batteries. The longer restoration times specified for battery parameters on one safety related battery not within limits are therefore not appropriate, and the parameters must be restored to within limits on one required station battery within 2 hours.

Per Action 3.7.D.2.f, when any battery parameter is outside the allowances of Actions 3.7.D.2.a, b, c, d, or e, sufficient capacity to supply the maximum expected load requirement is not ensured and a 2 hour restoration time is appropriate. Additionally, per Action 3.7.D.2.g, discovering one or both station batteries with one or more battery cells float voltage less than 2.07 V and float current greater than limits indicates that the battery capacity may not be sufficient to perform the intended functions. The battery must therefore be restored within 2 hours or the reactor placed in the COLD SHUTDOWN CONDITION.

Action 3.7.D.3 imposes a 2-hour restoration time for one station battery that is inoperable for reasons other than addressed by the parameter degradation Actions provided. With one station battery inoperable, the battery charger is supplying the DC bus. The 2-hour limit allows sufficient time to effect restoration of an inoperable battery given that the majority of the conditions that lead to battery inoperability (e.g., loss of battery charger, battery cell voltage less than 2.07 V, etc.) are identified in Actions 3.7.D.2 together with additional specific completion times. Failing to correct this inoperability within 2 hours would require the plant to proceed to cold shutdown.

The probability analysis in Appendix "L" of the FDSAR was based on one diesel and shows that even with only one diesel the probability of requiring engineered safety features at the same time as the second diesel fails is quite small. The analysis used information on peaking diesels when synchronization was required which is not the case for Oyster Creek. ~~Also the daily test of the second diesel when one is temporarily out of service tends to improve the reliability as does the fact that synchronization is not required.~~

As indicated in Amendment 18 to the Licensing Application, there are numerous sources of diesel fuel which can be obtained within 6 to 12 hours and the heating boiler fuel in a 75,000 gallon tank on the site could also be used. As indicated in Amendment 32 of the Licensing Application and including the Security System loads, the load requirement for the loss of offsite power would require 12,410 gallons for a three day supply. For the case of loss of offsite power plus loss-of-coolant plus bus failure 9790 gallons would be required for a three day supply.