

10 CFR 50.90

RS-02-044

May 1, 2002

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

Quad Cities Nuclear Power Station, Units 1 and 2
Facility Operating License Nos. DPR-29 and DPR-30
NRC Docket Nos. 50-254 and 50-265

Subject: Request for Technical Specifications Change Related to Emergency Diesel Generator Required Start Time

Reference: Letter from U. S. NRC to O. D. Kingsley (Exelon Generation Company, LLC), "Issuance of Amendments (TAC Nos. MB0168, MB0169, MB1327, and MB1328)," dated December 20, 2001

In accordance with 10 CFR 50.90, "Application for amendment of license or construction permit," Exelon Generation Company (EGC), LLC, is requesting a change to Appendix A, Technical Specifications (TS), of Facility Operating License Nos. DPR-29 and DPR-30, for Quad Cities Nuclear Power Station (QCNPS), Units 1 and 2. The proposed change revises the required emergency diesel generator (EDG) start time limit specified in TS Section 3.8.1, "AC Sources - Operating," Surveillance Requirements (SRs) from " ≤ 10 seconds" to " ≤ 13 seconds." This revised start time is consistent with the EDG start time delay assumed in the design basis loss-of-coolant accident (LOCA) analysis for General Electric GE-14 (GE-14) fuel. The GE-14 LOCA analysis applies to both transitional reactor cores fueled partially with GE-14 fuel and partially with other type General Electric fuel and Framatone fuel, and to reactor cores fueled completely with GE-14 fuel. Use of GE-14 fuel at QCNPS was approved by the NRC in the referenced letter. QCNPS, Unit 2 commenced utilizing GE-14 fuel in its current fuel cycle and Unit 1 will follow at its next refueling outage currently scheduled for November 2002.

The proposed TS change is being requested to preclude potential unnecessary conditions of EDG inoperability if an EDG does not satisfy the currently specified 10-second start time but does start within the revised EDG start time delay (i.e., 13 seconds) assumed in the GE-14 fuel LOCA analysis. For EDG start durations up to 13 seconds, the design basis function of the EDG starting and powering its emergency bus is maintained, and entry into TS required actions is unnecessary.

ADD1

EGC requests approval of this proposed change by November 5, 2002. Once approved, the amendment will be implemented for each unit containing GE-14 fuel within 30 days. QCNPS Unit 1 will start utilizing GE-14 fuel during fuel cycle 18, currently scheduled to commence in November 2002. Therefore, implementation of this proposed change for Unit 1 is not requested until GE-14 fuel is loaded into the Unit 1 reactor.

This request is subdivided as follows.

1. Attachment A gives a description and safety analysis of the proposed change.
2. Attachment B-1 provides the marked-up TS pages indicating the proposed change. Attachment B-2 provides clean revised TS and Bases pages incorporating the proposed change.
3. Attachment C describes our evaluation performed using the criteria in 10 CFR 50.91(a), "Notice for public comment," paragraph (1), which provides information supporting a finding of no significant hazards consideration using the standards in 10 CFR 50.92, "Issuance of amendment," paragraph (c).
4. Attachment D provides information supporting an environmental assessment.

This proposed change is also consistent with the TS SRs for Dresden Nuclear Power Station, Units 2 and 3, and LaSalle County Station, Units 1 and 2. The design basis LOCA analyses for these stations also assume an EDG start time delay of 13 seconds and their applicable TS SRs specify an EDG required start time of ≤ 13 seconds.

This proposed TS change has been reviewed by the QCNPS Plant Operations Review Committee and approved by the Nuclear Safety Review Board in accordance with the requirements of the EGC Quality Assurance Program.

EGC is notifying the State of Illinois of this request for changes to the TS 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 Mr. Brian Sweeney at (630) 657-2836.

Respectfully,



P. R. Simpson
Manager - Licensing
Mid-West Regional Operating Group

May 1, 2002
U. S. Nuclear Regulatory Commission
Page 3

Attachments: Affidavit
Attachment A, Description and Safety Analysis for Proposed Change
Attachment B-1, Marked-Up Technical Specifications Pages for Proposed
Change, Quad Cities Nuclear Power Station, Units 1 and 2
Attachment B-2, Typed Pages for Technical Specifications and Bases
Changes, Quad Cities Nuclear Power Station, Units 1 and 2
Attachment C, Information Supporting a Finding of No Significant Hazards
Consideration
Attachment D, Information Supporting an Environmental Assessment

cc: Regional Administrator - NRC Region III
NRC Senior Resident Inspector – Quad Cities Nuclear Power Station
Office of Nuclear Facility Safety - Illinois Department of Nuclear Safety

STATE OF ILLINOIS)
COUNTY OF DUPAGE)
IN THE MATTER OF)
EXELON GENERATION COMPANY, LLC) Docket Numbers
QUAD CITIES NUCLEAR POWER STATION, UNITS 1 AND 2) 50-254 AND 50-265

SUBJECT: Request for Technical Specifications Change Related to Emergency Diesel Generator Required Start Time

AFFIDAVIT

I affirm that the content of this transmittal is true and correct to the best of my knowledge, information, and belief.

P.R. Simpson

P. R. Simpson
Manager - Licensing
Mid-West Regional Operating Group

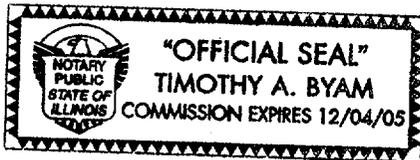
Subscribed and sworn to before me, a Notary Public in and

for the State above named, this 1st day of

May, 2002

Timothy A. Byam

Notary Public



ATTACHMENT A

DESCRIPTION AND SAFETY ANALYSIS FOR PROPOSED CHANGE

A. SUMMARY OF THE PROPOSED CHANGE

In accordance with 10 CFR 50.90, "Application for amendment of license or construction permit," Exelon Generation Company (EGC), LLC, proposes a change to Appendix A, Technical Specifications (TS), of Facility Operating License Nos. DPR-29 and DPR-30, for the Quad Cities Nuclear Power Station (QCNPS), Units 1 and 2. Specifically, EGC proposes to revise the required emergency diesel generator (EDG) start time limit in TS Section 3.8.1, "AC Sources – Operating," Surveillance Requirements (SRs) to specify a required EDG start time of " ≤ 13 seconds." The applicable SRs currently specify a required EDG start time of " ≤ 10 seconds." The basis for this change is the conservative EDG start time delay assumed in the design basis loss-of-coolant accident (LOCA) analysis for General Electric GE-14 (GE-14) fuel (Reference 1). An EDG start time delay of 13 seconds is within the conservative Emergency Core Cooling System (ECCS) initiation timing sequence used in the Reference 1 analysis. The Reference 1 analysis conservatively covered Dresden Nuclear Power Station, Units 2 and 3, and QCNPS, Units 1 and 2 for the GE-14 LOCA analysis. The GE-14 LOCA analysis applies to both transitional reactor cores fueled partially with GE-14 fuel and partially with other type General Electric fuel and Framatome fuel, and to reactor cores fueled completely with GE-14 fuel. Changing the QCNPS EDG assumed start time from 10 seconds to 13 seconds was demonstrated to be bounded by the analyzed timing sequence with no other changes to ECCS load sequencing. The NRC approved use of GE-14 fuel at QCNPS (Reference 2) for the next fuel cycle on each unit.

A complete description of the proposed change is given in Section E, "Description of the Proposed Change," of this Attachment. Attachment B-1 provides the marked-up TS pages indicating the proposed change.

B. DESCRIPTION OF THE CURRENT REQUIREMENT

QCNPS TS require performance of surveillance tests that verify the required EDG start time in the following six SRs:

1. SR 3.8.1.8 requires verification, every 184 days, that each EDG starts from standby condition and achieves required voltage and frequency in ≤ 10 seconds.
2. SR 3.8.1.12 requires verification, every 24 months, that on an actual or simulated loss-of-offsite power signal, each EDG auto-starts from standby condition and energizes permanently connected loads in ≤ 10 seconds.
3. SR 3.8.1.13 requires verification, every 24 months, that on an actual or simulated ECCS initiation signal, each EDG auto-starts from standby condition and achieves required voltage and frequency in ≤ 10 seconds.
4. SR 3.8.1.16 requires verification, every 24 months, that within 5 minutes after EDG shut down following operation for ≥ 2 hours at a load of ≥ 2340 kilowatts (kW), each DG starts and achieves required voltage and frequency in ≤ 10 seconds.

ATTACHMENT A

DESCRIPTION AND SAFETY ANALYSIS FOR PROPOSED CHANGE

5. SR 3.8.1.19 requires verification, every 24 months, that on an actual or simulated loss-of-offsite power signal in conjunction with an actual or simulated ECCS initiation signal, each EDG auto-starts from standby condition and energizes permanently connected loads in ≤ 10 seconds.
6. SR 3.8.1.20 requires verification, every 10 years, that when started simultaneously from standby condition, each EDG achieves required voltage and frequency in ≤ 10 seconds.

These SRs provide assurance that each EDG will perform as required to provide a reliable source of emergency electrical power for Engineered Safety Feature (ESF) loads within time limits assumed in design basis analyses.

C. BASES FOR THE CURRENT REQUIREMENT

The function of the EDGs is to provide an emergency source of alternating current (AC) electrical power to ESF systems in the event the normal offsite power becomes unavailable. The operability requirements for the EDGs provide assurance that a reliable source of emergency power is available to power the ESF equipment assumed to function in the design basis LOCA analysis. The EDGs automatically start on an ESF bus degraded voltage or undervoltage signal or on a LOCA signal, and provide emergency power, if necessary, to ESF loads on their emergency buses. The previously-described six SRs utilized to verify EDG operability specify that either the EDGs must start and achieve required frequency and voltage, or the EDGs must start and energize the permanently connected loads on their emergency buses, within a required time limit. In either case, the required time, ≤ 10 seconds, is the same for all of these SRs. This required time limit is derived from ECCS delivery timing requirements of the accident analysis for responding to a design basis LOCA. Prior to utilization of GE-14 fuel at QCNPS, the design basis LOCA analyses for QCNPS, Units 1 and 2, assumed an EDG start time delay of 10 seconds. Likewise, the 10-second start requirement was specified in the SRs that verified EDG starting capability. However, the new design basis LOCA analysis for GE-14 fuel can accommodate the assumed EDG start time delay increase by 3 seconds. The GE-14 LOCA analysis applies to both transitional reactor cores fueled partially with GE-14 fuel and partially with other type General Electric fuel and Framatome fuel, and to reactor cores fueled completely with GE-14 fuel.

D. NEED FOR REVISION OF THE REQUIREMENT

The QCNPS design basis LOCA analysis for GE-14 fuel assumes a conservative ECCS delay which can accommodate an EDG allowed start time delay of 13 seconds without changing any other ECCS pump sequencing requirements. This design basis LOCA analysis will apply to a QCNPS unit when GE-14 fuel is loaded into its reactor. The change being requested is consistent with this analysis. The revised EDG start time limit associated with the proposed change will reduce the potential for failure to achieve the unnecessarily conservative time limit currently specified in SRs. Therefore, the proposed change will reduce the number of potential entries into TS required actions for EDG

ATTACHMENT A

DESCRIPTION AND SAFETY ANALYSIS FOR PROPOSED CHANGE

inoperability, along with the unnecessary subsequent maintenance activities required to return the EDG to service, even though the EDG still satisfied its design basis start time. Since the revised EDG start time span is consistent with the station's new design basis LOCA analysis, plant operating safety is not impacted by this proposed change.

This proposed change is also consistent with the TS SRs for Dresden Nuclear Power Station, Units 2 and 3, and LaSalle County Station, Units 1 and 2. These stations also assume an EDG start time delay of 13 seconds in their design basis LOCA analyses and specify an EDG required start time of ≤ 13 seconds in their applicable TS SRs.

E. DESCRIPTION OF THE PROPOSED CHANGE

The proposed TS change is as follows.

- SRs 3.8.1.8, 3.8.1.12, 3.8.1.13, 3.8.1.16, 3.8.1.19 and 3.8.1.20 will be revised to specify a required EDG start time of " ≤ 13 seconds," instead of the current " ≤ 10 seconds."

The proposed TS change is reflected on marked-up copies of the affected TS pages for QCNPS in Attachment B-1. Clean revised TS and Bases pages affected by the proposed change are also provided as information in Attachment B-2. Following NRC approval of this request, EGC will revise the QCNPS TS Bases, in accordance with the TS Bases Control Program of TS Section 5.5.10, "Technical Specifications (TS) Bases Control Program," to incorporate the Bases changes as shown in Attachment B-2.

F. SAFETY ANALYSIS OF THE PROPOSED CHANGE

QCNPS, Units 1 and 2 are provided with sufficient and independent AC power sources to assure safe reactor shutdown under emergency conditions (worst case) on total loss-of-offsite power (LOOP) concurrent with a design basis accident (i.e., large break LOCA). This capability is attained by use of an EDG power source supplying reliable power to an emergency bus that feeds ECCSs required to mitigate the consequences of a LOCA. However, the EDGs are normally shutdown in standby condition. Since an EDG can not start and accelerate to rated speed and voltage instantaneously, there is a time delay before the EDG is of sufficient voltage and frequency to feed its emergency bus. Therefore, design basis LOCA analyses assume a specified time delay for EDG starting during a LOOP and associated ECCS pump load sequencing delays. For QCNPS, the specified EDG start time delay in the design basis LOCA analysis for GE-14 fuel can accommodate 13 seconds. The TS SRs are utilized to verify that emergency equipment performs in accordance with the requirements assumed in the design basis accident analyses. Therefore, for QCNPS the SRs should specify that the EDGs must start in a time span no longer than 13 seconds.

The proposed change will increase the time allowed for EDG starts specified in TS SRs from " ≤ 10 seconds" to " ≤ 13 seconds". The increase in time is consistent with the

ATTACHMENT A

DESCRIPTION AND SAFETY ANALYSIS FOR PROPOSED CHANGE

integrated EDG and ECCS sequencing time delay assumed in the QCNPS design basis LOCA analysis for GE-14 fuel. The GE-14 LOCA analysis applies to both transitional reactor cores fueled partially with GE-14 fuel and partially with other type General Electric fuel and Framatome fuel, and to reactor cores fueled completely with GE-14 fuel. The NRC approved use of GE-14 fuel at QCNPS in Reference 2.

The QCNPS EDGs are discussed in Updated Final Safety Analysis Report (UFSAR) Section 8.3.1.6, "Standby Emergency Diesel Generator System." Each unit has one dedicated EDG. A third EDG is shared by both units as a "Swing" EDG. The "Swing" EDG acts as the redundant emergency power source for the unit that experiences a design basis LOCA. However, only one EDG is required to provide the necessary power for a safe unit shutdown during a LOOP with or without a LOCA on the unit occurring simultaneously. UFSAR Section 6.3.3, "Emergency Core Cooling System Performance Evaluation," discusses equipment response to a design basis LOCA. During the design basis LOCA, a limiting single failure of one of the two available EDGs ("Unit" or "Swing") failing to start, ECCS sequencing of the remaining EDG is the bounding scenario. Therefore, the failure of an EDG to start within the required time span, though not expected as a result of this proposed change, is bounded by the evaluation for the design basis LOCA which assumes the "Unit" EDG failure to start and relies on the redundant "Swing" EDG.

The proposed EDG start time limit is the value supported by the QCNPS design basis analyses for GE-14 fuel using NRC approved methodology and the start time delay previously approved at Dresden Nuclear Power Station, Units 2 and 3, and LaSalle County Station, Units 1 and 2. Therefore, plant safety is not impacted by this proposed change.

G. IMPACT ON PREVIOUS SUBMITTALS

We have reviewed the proposed change for impact on any previous submittals not yet approved by the NRC for QCNPS, and have determined that there is no impact on any of these outstanding license amendment requests.

H. SCHEDULE REQUIREMENTS

EGC requests approval of this proposed change by November 5, 2002. Once approved, the amendment will be implemented for each unit containing GE-14 fuel within 30 days. QCNPS Unit 1 will start utilizing GE-14 fuel during fuel cycle 18, currently scheduled to commence in November 2002. Therefore, implementation of this proposed change for Unit 1 is not requested until GE-14 fuel is loaded into the Unit 1 reactor.

ATTACHMENT A

DESCRIPTION AND SAFETY ANALYSIS FOR PROPOSED CHANGE

I. REFERENCES

1. General Electric Nuclear Energy Proprietary Report, NEDC-32990P, Revision 1, "SAFER/GESTR-LOCA Loss-of Coolant Accident Analysis for Dresden Nuclear Station 2 and 3 and Quad Cities Nuclear Station Units 1 and 2," dated September 2001
2. NRC Safety Evaluation for Amendment No. 201 to Facility Operating License No. DPR-29 and Amendment No. 197 to Facility Operating License No. DPR-30, dated December 20, 2001

ATTACHMENT B-1

MARKED-UP TECHNICAL SPECIFICATIONS PAGES FOR PROPOSED CHANGE

QUAD CITIES NUCLEAR POWER STATION, UNITS 1 AND 2

REVISED TS PAGES

3.8.1-8
3.8.1-10
3.8.1-11
3.8.1-13
3.8.1-14
3.8.1-15

SURVEILLANCE REQUIREMENTS

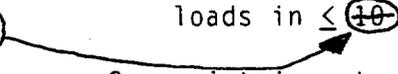
SURVEILLANCE	FREQUENCY
SR 3.8.1.7 Check for and remove accumulated water from each bulk storage tank.	92 days
SR 3.8.1.8 -----NOTES----- 1. All DG starts may be preceded by an engine prelube period. 2. A single test of the common DG at the specified Frequency will satisfy the Surveillance for both units. ----- Verify each DG starts from standby condition and achieves: (13) a. In ≤ 10 seconds, voltage ≥ 3952 V and frequency ≥ 58.8 Hz; and b. Steady state voltage ≥ 3952 V and ≤ 4368 V and frequency ≥ 58.8 Hz and ≤ 61.2 Hz.	184 days
SR 3.8.1.9 Verify manual transfer of unit power supply from the normal offsite circuit to the alternate offsite circuit.	24 months

(continued)

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.12 -----NOTE----- All DG starts may be preceded by an engine prelube period. -----</p> <p>Verify on an actual or simulated loss of offsite power signal:</p> <ul style="list-style-type: none"> a. De-energization of emergency buses; b. Load shedding from emergency buses; and c. DG auto-starts from standby condition and: <ul style="list-style-type: none"> 1. energizes permanently connected loads in \leq 10 seconds, 2. maintains steady state voltage \geq 3952 V and \leq 4368 V, 3. maintains steady state frequency \geq 58.8 Hz and \leq 61.2 Hz, and 4. supplies permanently connected loads for \geq 5 minutes. 	<p>24 months</p>

13



(continued)

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.13 -----NOTE----- All DG starts may be preceded by an engine prelube period. -----</p> <p>Verify on an actual or simulated Emergency Core Cooling System (ECCS) initiation signal each DG auto-starts from standby condition and:</p> <p>(13) a. In ≤ 10 seconds after auto-start, achieves voltage ≥ 3952 V and frequency ≥ 58.8 Hz;</p> <p>b. Achieves steady state voltage ≥ 3952 V and ≤ 4368 V and frequency ≥ 58.8 Hz and ≤ 61.2 Hz; and</p> <p>c. Operates for ≥ 5 minutes.</p>	<p>24 months</p>
<p>SR 3.8.1.14 Verify each DG's automatic trips are bypassed on actual or simulated loss of voltage signal on the emergency bus concurrent with an actual or simulated ECCS initiation signal except:</p> <p>a. Engine overspeed; and</p> <p>b. Generator differential current.</p>	<p>24 months</p>

(continued)

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.16 -----NOTES-----</p> <ol style="list-style-type: none"> 1. This Surveillance shall be performed within 5 minutes of shutting down the DG after the DG has operated ≥ 2 hours loaded ≥ 2340 kW. <p style="padding-left: 40px;">Momentary transients below the load limit do not invalidate this test.</p> <ol style="list-style-type: none"> 2. All DG starts may be preceded by an engine prelube period. 3. A single test of the common DG at the specified Frequency will satisfy the Surveillance for both units. <p>-----</p> <p>⑬ Verify each DG starts and achieves:</p> <ol style="list-style-type: none"> a. In ≤ 10 seconds, voltage ≥ 3952 and frequency ≥ 58.8 Hz; and b. Steady state voltage ≥ 3952 V and ≤ 4368 V and frequency ≥ 58.8 Hz and ≤ 61.2 Hz. 	<p>24 months</p>
<p>SR 3.8.1.17 Verify each DG:</p> <ol style="list-style-type: none"> a. Synchronizes with offsite power source while loaded with emergency loads upon a simulated restoration of offsite power; b. Transfers loads to offsite power source; and c. Returns to ready-to-load operation. 	<p>24 months</p>

(continued)

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.18 Verify interval between each sequenced load block is $\geq 90\%$ of the design interval for each load sequence time delay relay.</p>	<p>24 months</p>
<p>SR 3.8.1.19 -----NOTE----- All DG starts may be preceded by an engine prelude period. -----</p> <p>Verify, on an actual or simulated loss of offsite power signal in conjunction with an actual or simulated ECCS initiation signal:</p> <ul style="list-style-type: none"> a. De-energization of emergency buses; b. Load shedding from emergency buses; and c. DG auto-starts from standby condition and: <ul style="list-style-type: none"> 1. energizes permanently connected loads in ≤ 10 seconds, 2. energizes auto-connected emergency loads including through time delay relays, where applicable, 3. maintains steady state voltage ≥ 3952 V and ≤ 4368 V, 4. maintains steady state frequency ≥ 58.8 Hz and ≤ 61.2 Hz, and 5. supplies permanently connected and auto-connected emergency loads for ≥ 5 minutes. 	<p>24 months</p>

(13)

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(continued)

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.20 -----NOTE----- All DG starts may be preceded by an engine prelube period. -----</p> <p>Verify, when started simultaneously from standby condition, each DG achieves, in 13 10 seconds, voltage \geq 3952 V and frequency \geq 58.8 Hz.</p>	<p>10 years</p>
<p>SR 3.8.1.21 -----NOTE----- When the opposite unit is in MODE 4 or 5, or moving irradiated fuel assemblies in secondary containment, the following opposite unit SRs are not required to be performed: SR 3.8.1.3, SR 3.8.1.10 through SR 3.8.1.12, and SR 3.8.1.14 through SR 3.8.1.17. -----</p> <p>For required opposite unit AC electrical power sources, the SRs of the opposite unit's Specification 3.8.1, except SR 3.8.1.9, SR 3.8.1.13, SR 3.8.1.18, SR 3.8.1.19, and SR 3.8.1.20, are applicable.</p>	<p>In accordance with applicable SRs</p>

ATTACHMENT B-2

TYPED PAGES

FOR

TECHNICAL SPECIFICATIONS AND BASES CHANGES

QUAD CITIES NUCLEAR POWER STATION, UNITS 1 AND 2

REVISED TS PAGE

3.8.1-8
3.8.1-10
3.8.1-11
3.8.1-13
3.8.1-14
3.8.1-15

REVISED BASES PAGES
(PROVIDED FOR INFORMATION ONLY)

B 3.3.5.1-9
B 3.8.1-5
B 3.8.1-6
B 3.8.1-19
B 3.8.1-26
B 3.8.1-27
B 3.8.1-30
B 3.8.2-3

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.1.7	Check for and remove accumulated water from each bulk storage tank.	92 days
SR 3.8.1.8	<p>-----NOTES-----</p> <ol style="list-style-type: none"> 1. All DG starts may be preceded by an engine prelube period. 2. A single test of the common DG at the specified Frequency will satisfy the Surveillance for both units. <p>-----</p> <p>Verify each DG starts from standby condition and achieves:</p> <ol style="list-style-type: none"> a. In ≤ 13 seconds, voltage ≥ 3952 V and frequency ≥ 58.8 Hz; and b. Steady state voltage ≥ 3952 V and ≤ 4368 V and frequency ≥ 58.8 Hz and ≤ 61.2 Hz. 	184 days
SR 3.8.1.9	Verify manual transfer of unit power supply from the normal offsite circuit to the alternate offsite circuit.	24 months

(continued)

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.12 -----NOTE----- All DG starts may be preceded by an engine prelube period. ----- Verify on an actual or simulated loss of offsite power signal:</p> <ul style="list-style-type: none"> a. De-energization of emergency buses; b. Load shedding from emergency buses; and c. DG auto-starts from standby condition and: <ul style="list-style-type: none"> 1. energizes permanently connected loads in ≤ 13 seconds, 2. maintains steady state voltage ≥ 3952 V and ≤ 4368 V, 3. maintains steady state frequency ≥ 58.8 Hz and ≤ 61.2 Hz, and 4. supplies permanently connected loads for ≥ 5 minutes. 	<p>24 months</p>

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SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.13 -----NOTE----- All DG starts may be preceded by an engine prelube period. -----</p> <p>Verify on an actual or simulated Emergency Core Cooling System (ECCS) initiation signal each DG auto-starts from standby condition and:</p> <ul style="list-style-type: none"> a. In ≤ 13 seconds after auto-start, achieves voltage ≥ 3952 V and frequency ≥ 58.8 Hz; b. Achieves steady state voltage ≥ 3952 V and ≤ 4368 V and frequency ≥ 58.8 Hz and ≤ 61.2 Hz; and c. Operates for ≥ 5 minutes. 	<p>24 months</p>
<p>SR 3.8.1.14 Verify each DG's automatic trips are bypassed on actual or simulated loss of voltage signal on the emergency bus concurrent with an actual or simulated ECCS initiation signal except:</p> <ul style="list-style-type: none"> a. Engine overspeed; and b. Generator differential current. 	<p>24 months</p>

(continued)

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.16 -----NOTES-----</p> <ol style="list-style-type: none"> 1. This Surveillance shall be performed within 5 minutes of shutting down the DG after the DG has operated ≥ 2 hours loaded ≥ 2340 kW. <p style="padding-left: 40px;">Momentary transients below the load limit do not invalidate this test.</p> <ol style="list-style-type: none"> 2. All DG starts may be preceded by an engine prelube period. 3. A single test of the common DG at the specified Frequency will satisfy the Surveillance for both units. <p>-----</p> <p>Verify each DG starts and achieves:</p> <ol style="list-style-type: none"> a. In ≤ 13 seconds, voltage ≥ 3952 and frequency ≥ 58.8 Hz; and b. Steady state voltage ≥ 3952 V and ≤ 4368 V and frequency ≥ 58.8 Hz and ≤ 61.2 Hz. 	<p>24 months</p>
<p>SR 3.8.1.17 Verify each DG:</p> <ol style="list-style-type: none"> a. Synchronizes with offsite power source while loaded with emergency loads upon a simulated restoration of offsite power; b. Transfers loads to offsite power source; and c. Returns to ready-to-load operation. 	<p>24 months</p>

(continued)

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.8.1.18 Verify interval between each sequenced load block is $\geq 90\%$ of the design interval for each load sequence time delay relay.	24 months
SR 3.8.1.19 -----NOTE----- All DG starts may be preceded by an engine prelude period. ----- Verify, on an actual or simulated loss of offsite power signal in conjunction with an actual or simulated ECCS initiation signal: a. De-energization of emergency buses; b. Load shedding from emergency buses; and c. DG auto-starts from standby condition and: 1. energizes permanently connected loads in ≤ 13 seconds, 2. energizes auto-connected emergency loads including through time delay relays, where applicable, 3. maintains steady state voltage ≥ 3952 V and ≤ 4368 V, 4. maintains steady state frequency ≥ 58.8 Hz and ≤ 61.2 Hz, and 5. supplies permanently connected and auto-connected emergency loads for ≥ 5 minutes.	24 months

(continued)

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.20 -----NOTE----- All DG starts may be preceded by an engine prelube period. ----- Verify, when started simultaneously from standby condition, each DG achieves, in ≤ 13 seconds, voltage ≥ 3952 V and frequency ≥ 58.8 Hz.</p>	<p>10 years</p>
<p>SR 3.8.1.21 -----NOTE----- When the opposite unit is in MODE 4 or 5, or moving irradiated fuel assemblies in secondary containment, the following opposite unit SRs are not required to be performed: SR 3.8.1.3, SR 3.8.1.10 through SR 3.8.1.12, and SR 3.8.1.14 through SR 3.8.1.17. ----- For required opposite unit AC electrical power sources, the SRs of the opposite unit's Specification 3.8.1, except SR 3.8.1.9, SR 3.8.1.13, SR 3.8.1.18, SR 3.8.1.19, and SR 3.8.1.20, are applicable.</p>	<p>In accordance with applicable SRs</p>

BASES

BACKGROUND Diesel Generators (continued)

monitored by four redundant differential pressure instruments and the Drywell Pressure-High variable is monitored by four redundant pressure switches. The output of each switch/instrument is connected to relays whose contacts are connected to two trip systems. Each trip system is arranged in a one-out-of-two taken twice logic. One trip system starts the unit DG and the other trip system starts the common DG (DG 1/2). The DGs receive their initiation signals from the CS System initiation logic. The DGs can also be started manually from the control room and locally from the associated DG room. Upon receipt of a loss of coolant accident (LOCA) initiation signal, each DG is automatically started, is ready to load in approximately 13 seconds, and will run in standby conditions (rated voltage and speed, with the DG output breaker open). The DGs will only energize their respective Essential Service System (ESS) buses if a loss of offsite power occurs (Refer to Bases for LCO 3.3.8.1).

APPLICABLE
SAFETY ANALYSES,
LCO, and
APPLICABILITY

The actions of the ECCS are explicitly assumed in the safety analyses of References 1, 2, and 3. The ECCS is initiated to preserve the integrity of the fuel cladding by limiting the post LOCA peak cladding temperature to less than the 10 CFR 50.46 limits.

ECCS instrumentation satisfies Criterion 3 of 10 CFR 50.36(c)(2)(ii). Certain instrumentation Functions are retained for other reasons and are described below in the individual Functions discussion.

The OPERABILITY of the ECCS instrumentation is dependent upon the OPERABILITY of the individual instrumentation channel Functions specified in Table 3.3.5.1-1. Each Function must have a required number of OPERABLE channels, with their setpoints within the specified Allowable Values, where appropriate. The actual setpoint is calibrated consistent with applicable setpoint methodology assumptions. Table 3.3.5.1-1, footnote (b), is added to show that certain ECCS instrumentation Functions are also required to be OPERABLE to perform DG initiation.

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BASES

LCO
(continued)

Each offsite circuit from the 345 kV switchyard must be capable of maintaining rated frequency and voltage, and accepting required loads during an accident, while connected to the 4160 V ESS buses. An offsite circuit to each unit consists of the incoming breaker and disconnect to the respective 12 and 22 RATs, RATs 12 and 22, and the respective circuit path including feeder breakers to 4160 V ESS buses. A qualified circuit does not have to be connected to the ESS bus (i.e., the main generator can be connected to the ESS bus) as long as the capability to fast transfer to the qualified circuit exists. The other qualified offsite circuit for each unit is provided by a bus tie between the corresponding ESS buses of the two units. The breakers connecting the buses must be capable of closure. For Unit 1, LCO 3.8.1.a is met if RAT 12 is capable of supplying ESS buses 13-1 and 14-1 and if RAT 22 (or UAT 21 on backfeed) can supply ESS bus 13-1 via ESS bus 23 and 23-1 and the associated bus tie or ESS bus 14-1 via ESS bus 24 and 24-1 and the associated bus tie. For Unit 2, LCO 3.8.1.a is met if RAT 22 can supply ESS buses 23-1 and 24-1 and if RAT 12 (or UAT 11 on backfeed) can supply ESS bus 23-1 via ESS bus 13 and 13-1 and the associated bus tie or ESS bus 24-1 via ESS bus 14 and 14-1 and the associated bus tie. For Unit 1, LCO 3.8.1.c is met if RAT 22 (or UAT 21 on backfeed) is capable of supplying ESS bus 29 to support equipment required by LCO 3.6.4.3. For Unit 2, LCO 3.8.1.c is met if RAT 12 (or UAT 11 on backfeed) is capable of supplying ESS bus 19, to support equipment required by LCO 3.6.4.3, and supplying ESS bus 18, to support equipment required by LCO 3.7.4 and LCO 3.7.5.

The respective unit DG and common DG must be capable of starting, accelerating to rated speed and voltage, and connecting to its respective 4160 V ESS bus on detection of bus undervoltage. This sequence must be accomplished within 13 seconds. Each respective unit DG and common DG must also be capable of accepting required loads within the assumed loading sequence intervals, and must continue to operate until offsite power can be restored to the 4160 V ESS buses. These capabilities are required to be met from a variety of initial conditions, such as DG in standby with the engine hot and DG in standby with the engine at ambient condition. Additional DG capabilities must be demonstrated to meet required Surveillances. Proper sequencing of loads, including tripping of nonessential loads, is a required function for DG OPERABILITY.

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BASES

LCO
(continued)

The opposite unit's DG must be capable of starting, accelerating to rated speed and voltage, and connecting to its Division 2 Class 1E AC electrical power distribution subsystem on detection of bus undervoltage. This sequence must be accomplished within 13 seconds and is required to be met from the same variety of initial conditions specified for the respective unit and shared DGs. For Unit 1 to meet LCO 3.8.1.d, DG 2 must be capable of supplying ESS bus 24-1 on a loss of power to the bus in order to supply ESS bus 29 to support equipment required by LCO 3.6.4.3. Similarly, for Unit 2 to meet LCO 3.8.1.d, DG 1 must be capable of supplying ESS bus 14-1 on a loss of power to the bus in order to supply ESS bus 19, to support equipment required by LCO 3.6.4.3, and to supply ESS bus 18, to support equipment required by LCO 3.7.4 and 3.7.5.

In addition, fuel oil storage and fuel oil transfer pump requirements must be met for each required DG.

The AC sources must be separate and independent (to the extent possible) of other AC sources. For the DGs, the separation and independence are complete. For the offsite AC sources, the separation and independence are to the extent practical. A qualified circuit may be connected to both divisions of either unit, with manual transfer capability to the other circuit OPERABLE, and not violate separation criteria. A qualified circuit that is not connected to the 4160 ESS buses is required to have OPERABLE manual transfer capability to the 4160 ESS buses to support OPERABILITY of that qualified circuit.

APPLICABILITY

The AC sources are required to be OPERABLE in MODES 1, 2, and 3 to ensure that:

- a. Acceptable fuel design limits and reactor coolant pressure boundary limits are not exceeded as a result of A00s or abnormal transients; and
- b. Adequate core cooling is provided and containment OPERABILITY and other vital functions are maintained in the event of a postulated DBA.

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BASES

SURVEILLANCE
REQUIREMENTS

SR 3.8.1.2 and SR 3.8.1.8 (continued)

In order to reduce stress and wear on diesel engines, the manufacturer has recommended a modified start in which the starting speed of DGs is limited, warmup is limited to this lower speed, and the DGs are gradually accelerated to synchronous speed prior to loading. These start procedures are the intent of Note 2 of SR 3.8.1.2.

SR 3.8.1.8 requires that, at a 184 day Frequency, the DG starts from standby conditions and achieves required voltage and frequency within 13 seconds. The 13 second start requirement supports the assumptions in the design basis LOCA analysis of UFSAR, Section 6.3 (Ref. 14). The 13 second start requirement is not applicable to SR 3.8.1.2 (see Note 2 of SR 3.8.1.2), when a modified start procedure as described above is used. If a modified start is not used, the 13 second start requirement of SR 3.8.1.8 applies.

Since SR 3.8.1.8 does require a 13 second start, it is more restrictive than SR 3.8.1.2, and it may be performed in lieu of SR 3.8.1.2.

In addition, the DG is required to maintain proper voltage and frequency limits after steady state is achieved. The voltage and frequency limits are normally achieved within 13 seconds. The time for the DG to reach steady state operation, unless the modified DG start method is employed, is periodically monitored and the trend evaluated to identify degradation of governor and voltage regulator performance.

To minimize testing of the common DG, Note 3 of SR 3.8.1.2 and Note 2 of SR 3.8.1.8 allow a single test of the common DG (instead of two tests, one for each unit) to satisfy the requirements for both units. This is allowed since the main purpose of the Surveillance can be met by performing the test on either unit. However, to the extent practicable, the tests should be alternated between units. If the DG fails one of these Surveillances, the DG should be considered inoperable on both units, unless the cause of the failure can be directly related to only one unit.

The 31 day Frequency for SR 3.8.1.2 is consistent with Regulatory Guide 1.9 (Ref. 10). The 184 day Frequency for

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BASES

SURVEILLANCE
REQUIREMENTS

SR 3.8.1.11 (continued)

This SR is modified by two Notes. To minimize testing of the common DG, Note 1 allows a single test of the common DG (instead of two tests, one for each unit) to satisfy the requirements for both units. This is allowed since the main purpose of the Surveillance can be met by performing the test on either unit. If the DG fails one of these Surveillances, the DG should be considered inoperable on both units, unless the cause of the failure can be directly related to only one unit. Note 2 modifies this Surveillance by stating that momentary transients outside the voltage limit do not invalidate this test.

SR 3.8.1.12

Consistent with Regulatory Guide 1.9 (Ref. 10), paragraph C.2.2.4, this Surveillance demonstrates the as designed operation of the standby power sources during loss of the offsite source. This test verifies all actions encountered from the loss of offsite power, including shedding of the nonessential loads and energization of the emergency buses and respective loads from the DG. It further demonstrates the capability of the DG to automatically achieve the required voltage and frequency within the specified time.

The DG auto-start and energization of permanently connected loads time of 13 seconds is derived from requirements of the accident analysis for responding to a design basis large break LOCA (Ref. 14). The Surveillance should be continued for a minimum of 5 minutes in order to demonstrate that all starting transients have decayed and stability has been achieved.

The requirement to verify the connection and power supply of permanently connected loads is intended to satisfactorily show the relationship of these loads to the DG loading logic. In certain circumstances, many of these loads cannot actually be connected or loaded without undue hardship or potential for undesired operation. For instance, a component or system may be out-of-service and closure of its

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BASES

SURVEILLANCE
REQUIREMENTS

SR 3.8.1.12 (continued)

associated breaker during this test may damage the component or system. In lieu of actual demonstration of the connection and loading of these loads, testing that adequately shows the capability of the DG system to perform these functions is acceptable. This testing may include any series of sequential, overlapping, or total steps so that the entire connection and loading sequence is verified.

The Frequency of 24 months takes into consideration plant conditions required to perform the Surveillance, and is intended to be consistent with expected fuel cycle lengths.

This SR is modified by a Note. The reason for the Note is to minimize wear and tear on the DGs during testing. For the purpose of this testing, the DGs shall be started from standby conditions, that is, with the engine coolant and oil being continuously circulated and temperature maintained consistent with manufacturer recommendations.

SR 3.8.1.13

Consistent with Regulatory Guide 1.9 (Ref. 10), paragraph C.2.2.5, this Surveillance demonstrates that the DG automatically starts and achieves the required voltage and frequency within the specified time (13 seconds) from the design basis actuation signal (LOCA signal). In addition, the DG is required to maintain proper voltage and frequency limits after steady state is achieved. The time for the DG to reach the steady state voltage and frequency limits is periodically monitored and the trend evaluated to identify degradation of governor and voltage regulator performance. The DG is required to operate for ≥ 5 minutes. The 5 minute period provides sufficient time to demonstrate stability.

The Frequency of 24 months takes into consideration plant conditions required to perform the Surveillance, and is intended to be consistent with the expected fuel cycle lengths.

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BASES

SURVEILLANCE
REQUIREMENTS

SR 3.8.1.15 (continued)

purpose of the Surveillance can be met by performing the test on either unit. If the DG fails one of these Surveillances, the DG should be considered inoperable on both units, unless the cause of the failure can be directly related to only one unit.

SR 3.8.1.16

This Surveillance demonstrates that the diesel engine can restart from a hot condition, such as subsequent to shutdown from normal Surveillances, and achieve the required voltage and frequency within 13 seconds. The 13 second time is derived from the requirements of the accident analysis for responding to a design basis large break LOCA (Ref. 14). In addition, the DG is required to maintain proper voltage and frequency limits after steady state is achieved. The time for the DG to reach the steady state voltage and frequency limits is periodically monitored and the trend evaluated to identify degradation of governor and voltage regulator performance.

The 24 month Frequency takes into consideration the plant conditions required to perform the Surveillance, and is intended to be consistent with the expected fuel cycle lengths.

This SR is modified by three Notes. Note 1 ensures that the test is performed with the diesel sufficiently hot. The requirement that the diesel has operated for at least 2 hours at approximately full load conditions prior to performance of this Surveillance is based on manufacturer recommendations for achieving hot conditions. Momentary transients due to changing bus loads do not invalidate this test. Note 2 allows all DG starts to be preceded by an engine prelube period to minimize wear and tear on the diesel during testing. To minimize testing of the common DG, Note 3 allows a single test of the common DG (instead of two tests, one for each unit) to satisfy the requirements for both units. This is allowed since the main purpose of

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BASES

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assuming a loss of the offsite circuit. Together, OPERABILITY of the required offsite circuit and DG ensures the availability of sufficient AC sources to operate the plant in a safe manner and to mitigate the consequences of postulated events during shutdown (e.g., fuel handling accidents and reactor vessel draindown).

The qualified offsite circuit(s) must be capable of maintaining rated frequency and voltage while connected to their respective ESS bus(es), and of accepting required loads during an accident. Qualified offsite circuits are those that are described in the UFSAR and are part of the licensing basis for the unit. The offsite circuit from the 345 kV switchyard consists of the incoming breakers and disconnects to the 12 or 22 reserve auxiliary transformer (RAT), associated 12 or 22 RAT, and the respective circuit path including feeder breakers to 4160 kV ESS buses required by LCO 3.8.8. Another qualified circuit is provided by the bus tie between the corresponding ESS buses of the two units.

The required DG must be capable of starting, accelerating to rated speed and voltage, connecting to its respective 4160 V ESS bus on detection of bus undervoltage, and accepting required loads. This sequence must be accomplished within 13 seconds. Each DG must also be capable of accepting required loads within the assumed loading sequence intervals, and must continue to operate until offsite power can be restored to the 4160 V ESS buses. These capabilities are required to be met from a variety of initial conditions such as DG in standby with engine hot and DG in standby with engine at ambient conditions. Additional DG capabilities must be demonstrated to meet required Surveillances. Proper sequencing of loads, including tripping of nonessential loads, is a required function for DG OPERABILITY. The necessary portions of the DG Cooling Water System capable of providing cooling to the required DG is also required.

It is acceptable for divisions to be cross tied during shutdown conditions, permitting a single offsite power circuit to supply all required divisions.

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ATTACHMENT C

INFORMATION SUPPORTING A FINDING OF NO SIGNIFICANT HAZARDS CONSIDERATION

According to 10 CFR 50.92, "Issuance of amendment," paragraph (c), a proposed amendment to an operating license involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not:

- (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or
- (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or
- (3) Involve a significant reduction in a margin of safety.

In support of this determination, an evaluation of each of the three criteria set forth in 10 CFR 50.92 is provided below regarding the proposed license amendment.

Overview

In accordance with 10 CFR 50.90, "Application for amendment of license or construction permit," Exelon Generation Company, LLC, is requesting a change to Appendix A, Technical Specifications (TS), of Facility Operating License Nos. DPR-29 and DPR-30, for Quad Cities Nuclear Power Station (QCNPS), Units 1 and 2. Six TS Surveillance Requirements (SRs) require that each emergency diesel generator (EDG) start within a specified time limit under various actuating conditions. Performance of the SRs provide assurance that the EDGs can satisfy their emergency function of powering essential loads within the assumed EDG start time delay supported by the design basis accident analyses. However, the required time limit specified in the SRs (i.e., ≤ 10 seconds) requires revision to match the assumed EDG start time delay (i.e., ≤ 13 seconds) supported by the design basis loss-of-coolant accident analysis for General Electric GE-14 fuel. The proposed change revises the EDG start time limit specified in SRs to agree with the new design basis analysis integrated Emergency Core Cooling System delivery timing assumptions as a result of QCNPS now utilizing GE-14 fuel.

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

The accidents previously evaluated in the Updated Final Safety Analysis Report (UFSAR) involving emergency diesel generators (EDGs) are failure of one EDG to start during a loss-of-offsite power (LOOP), with or without, simultaneous occurrence of the design basis loss-of-coolant accident (LOCA). New evaluations were necessary for the General Electric GE-14 (GE-14) fuel to be used at Quad Cities Nuclear Power Station (QCNPS), Units 1 and 2. The proposed change increases the time limit allowed for an EDG to start by 3 seconds. However, the increased EDG start time span allowance is still within the time delay assumed in these newly evaluated accidents. Thus, the probability for a successful EDG start is unchanged by this proposed change. A change in the start time of an EDG, but still within the bounds of the time delay assumed in analyzed accidents, does not affect previously evaluated accidents.

ATTACHMENT C

In either accident specified above (i.e., failure of one EDG with either a LOOP or a LOOP plus LOCA), the UFSAR accident analysis assumes the limiting single failure, as required by 10 CFR 50 Appendix K, "ECCS Evaluation Models," which is the complete failure of the unit EDG to start. The limiting single failure is unchanged by the 3-second increase in EDG start time. For this limiting single failure, the redundant "swing" EDG starts within 13 seconds and powers the essential loads delivering Emergency Core Cooling System (ECCS) flow to the core within the GE-14 LOCA analysis assumptions. This GE-14 analysis meets all of the same 10 CFR 50.46, "Acceptance criteria for emergency core cooling systems for light-water nuclear power reactors," requirements as the previously evaluated LOCA analysis assuming a 10-second EDG start time. Therefore, the consequences of an EDG start failure are not impacted by the proposed increase in the allowed EDG start time limit. Based on the above, the proposed TS change does not involve a significant increase in the consequences of an accident previously evaluated.

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

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

The proposed change revises the required EDG start time limit utilized by the six Surveillance Requirements (SRs) that verify EDG start capability. No other changes in requirements are being proposed. The revised EDG start time limit is consistent with the EDG and ECCS start time delay assumed in the design basis accident analysis. Therefore, the proposed EDG start time utilized by the six SRs is still bounded by analyzed evaluations of a LOOP or a LOOP in conjunction with a LOCA. No new failure modes are introduced by this proposed change. In addition, the proposed change does not physically alter the plant and will not alter the operation of the structures, systems, or components of QCNPS. Therefore, the possibility of a new or different kind of accident from any accident previously evaluated will not be created.

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

The consequences of a LOOP or a LOOP in conjunction with a LOCA have been previously evaluated. New evaluations were performed for the GE-14 fuel to be used at QCNPS. These new evaluations assume a bounding and longer EDG start time delay, following detection of the LOOP condition, prior to powering permanent loads fed off its associated emergency bus. Since the longer EDG start time delay was assumed in these new evaluations, any EDG start within the longer start time is bounded. The currently specified TS EDG start time limit is based on the existing analyses for the fuel utilized by QCNPS. New analysis for GE-14 fuel has assumed more conservative and bounding time delays for the integrated ECCS delivery timing sequence. All of the acceptance criterion of 10 CFR 50.46 continue to be met with the new GE-14 conservative EDG and ECCS sequences analyzed. The proposed change does not alter the basis upon which the start time limit specified in the TS is derived. Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Conclusion

Based upon the above evaluation, we have concluded that the three criteria of 10 CFR 50.92(c) are satisfied and that the proposed TS change involves no significant hazards consideration.

ATTACHMENT D

INFORMATION SUPPORTING AN ENVIRONMENTAL ASSESSMENT

In accordance with 10 CFR 50.90, "Application for amendment of license or construction permit," Exelon Generation Company (EGC), LLC, is requesting a change to Appendix A, Technical Specifications (TS), of Facility Operating License Nos. DPR-29 and DPR-30, for Quad Cities Nuclear Power Station (QCNPS), Units 1 and 2. Six TS Surveillance Requirements (SRs) require that each emergency diesel generator (EDG) start within a specified time under various actuating conditions. Performance of the SRs provide assurance that the EDGs can satisfy their emergency function of powering essential loads within the assumed EDG start time delay utilized in design basis accident analyses. However, the time limit specified in the SRs (i.e., ≤ 10 seconds) requires revision to match the assumed EDG start time delay (i.e., 13 seconds) utilized in the design basis loss-of-coolant accident analysis for General Electric GE-14 fuel. The proposed change revises the EDG start time span specified in SRs to agree with the new design basis analysis assumptions as a result of QCNPS now utilizing GE-14 fuel.

EGC has evaluated this proposed change against the criteria for identification of licensing and regulatory actions requiring environmental assessment in accordance with 10 CFR 51.21, "Criteria for and identification of licensing and regulatory actions requiring environmental assessments." EGC has determined that this proposed change meets the criteria for a categorical exclusion set forth in 10 CFR 51.22, "Criterion for categorical exclusion; identification of licensing and regulatory actions eligible for categorical exclusion or otherwise not requiring environmental review," paragraph (c)(9), and as such, has determined that no irreversible consequences exist in accordance with 10 CFR 50.92, "Issuance of amendment," paragraph (b). This determination is based on the fact that this change is being proposed as an amendment to a license issued pursuant to 10 CFR 50, "Domestic Licensing of Production and Utilization Facilities," which changes a surveillance requirement, and the amendment meets the following specific criteria:

(i) The proposed change involves no significant hazards consideration.

As demonstrated in Attachment C, this proposed change does not involve any significant hazards consideration.

(ii) There is no significant change in the types or significant increase in the amounts of any effluent that may be released offsite.

The proposed change, which revises the EDG start time limit specified in TS SRs to agree with design basis analyses assumptions, is consistent with the plant design basis. Since this change revises the SRs to agree with the plant design basis, analyzed accidents are unaffected. Thus, there will be no change in the amounts of any effluents released offsite. The proposed change does not result in an increase in power level, does not increase the production, nor alter the flow path or method of disposal of radioactive waste or byproducts. Therefore, the proposed change will not affect the types, or increase the amounts, of any effluents released offsite.

ATTACHMENT D

- (iii) **There is no significant increase in individual or cumulative occupational radiation exposure.**

The proposed change will not result in changes in the configuration of the facility. The proposed change only affects the time limit specified for EDG starts in TS SRs. There will be no change in the level of controls or methodology used for processing of radioactive effluents or handling of solid radioactive waste, nor will the proposal result in any change in the normal radiation levels in the plant. Therefore, there will be no increase in individual or cumulative occupational radiation exposure resulting from this change.