

NRR-DMPSPERem Resource

From: Vaidya, Bhalchandra
Sent: Thursday, March 28, 2019 6:46 AM
To: david.gullott@exeloncorp.com; Sprengel, Ryan:(GenCo-Nuc)
Subject: Request for Additional Information (RAI)-LaSalle 1 and 2, EPID-L-2018-LLA-0162, LAR
RE: Removal of Operating Mode Restrictions for Performing Surveillance Testing of the
Div 3 Battery and HPCS DG

Subject: LaSalle County Station, Units 1 and 2 - License Amendment Request to Remove Operating Mode Restrictions for Performing Surveillance Testing of the Division 3 Battery and High Pressure Core Spray Diesel Generator.

EPID- L-2018-LLA-0162 (CAC NOS. 000976/05000373/ L-2018-LLA-0162, and 000976/05000374/ L-2018-LLA-0162)

Docket Nos. 50-373 and 50-374

David and Ryan,

By application dated April 19, 2018 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML18157A123), Exelon Generation Company, LLC (EGC), the licensee requested an amendment to Renewed Facility Operating License Nos. NPF-11 and NPF-18 for LaSalle County Station (LSCS), Units 1 and 2, respectively. The license amendment request (LAR) is related to the changes to Technical Specifications to Remove Operating Mode Restrictions for Performing Surveillance Testing of the Division 3 Battery and High Pressure Core Spray Diesel Generator.

The NRC staff has determined that additional information is necessary to complete its review regarding the requested amendment.

The NRC Staff's request for additional information (RAIs) are provided below. A clarification telephone call was held between the NRC staff and Licensee on February 14, 2019.

Additionally, A Draft RAI# 3 was sent to the licensee on March 5, 2019, and a clarification call was held on March 27, 2019. The RAI# 3 is also included in this transmittal.

This request has not made any changes to the DRAFT RAs sent from the NRC staff to the licensee by emails dated January 22, 2019, and March 5, 2019.

=====

REQUEST FOR ADDITIONAL INFORMATION
LICENSE AMENDMENT REQUEST TO REVISE THE TECHNICAL SPECIFICATIONS
3.8.4 AND 3.8.6 TO REMOVE MODE RESTRICTIONS FROM TECHNICAL SPECIFICATIONS SURVEILLANCE REQUIREMENTS
DOCKET NOS. 50-373 AND 50-374
(EPID NO. L-2018-LLA-0162)

By application dated April 19, 2018 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML18157A123), Exelon Generation Corporation, LLC (the licensee), requested an amendment to the Renewed Facility Operating License Nos. NPF-11 and NPF-18 for LaSalle County Station Units 1 and 2 respectively. The proposed amendment would revise Technical Specifications (TS) 3.8.1, "AC Sources-Operating," and TS 3.8.4, "DC Sources-Operating." Specifically, the proposed changes would remove operating Mode restrictions for performance of TS Surveillance Requirements pertaining to the Division 3 battery and high pressure core spray diesel generator. To complete its review, the U.S. Nuclear Regulatory Commission (NRC) staff requests a response to the questions below.

EEOB RAI 1

Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Appendix A of Part 50, General Design Criterion (GDC) 17, "Electric Power Systems," states, in part, that an onsite electric power system and an offsite electric power system 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 shall have sufficient independence, redundancy, and testability to perform their safety functions assuming a single failure.

Subsection 3.1, "Division 3 Battery Surveillance Testing," of the license amendment request (LAR) discusses the time needed to perform the battery testing required by SR 3.8.4.3 and SR 3.8.6.6 relatively to the time the high pressure core spray (HPCS) system is

allowed to be out of service by the current TS. The discussion in Subsection 3.1 also implies that the above tests are proposed to be performed when the HPCS is already out of service during the HPCS system planned maintenance outage.

The LAR, however, does not include a similar discussion for the HPCS diesel generator testing required by other SRs. It is not clear whether the HPCS diesel generator tests are proposed to be performed only when the HPCS is already out of service during the HPCS system planned maintenance outage. Please provide a discussion of when the HPCS diesel generator tests will be performed. If the HPCS diesel generator tests are not be performed during the HPCS system planned maintenance outage, please provide a description of how these tests impact the Division 3 SSCs, as listed in UFSAR Table 8.1-1.

It is also not clear if the HPCS diesel generator testing can be performed within the time that the HPCS system is allowed to be out of service by the current TS. Please provide a discussion of the time needed to perform the HPCS diesel generator tests required each of the following SRs.

- SR 3.8.1.10
- SR 3.8.1.11
- SR 3.8.1.12
- SR 3.8.1.13
- SR 3.8.1.16
- SR 3.8.1.17
- SR 3.8.1.19

EEOB RAI 2

Subsection 3.2.4, "Online Testing Versus Outage Testing," of the LAR states that the Division 3 diesel generator supplies only the HPCS pump and associated support equipment and auxiliaries (as listed in LSCS UFSAR Table 8.1-3). However, UFSAR Table 8.1-3 provides a list of the nuclear safety electrical design criteria. The NRC staff notes that UFSAR Table 8.1-1, "Power Assignment of Safety-Related Systems to Electrical Divisions for Separation," indicates that Division 3 power is assigned to the following SSCs:

- HPCS
- Diesel generator 1B (2B)
- 125-Vdc system 3
- 4160-volt bus 143 (243)
- 480-volt MCC 143-1 (243-1)
- Auxiliary support systems, power and control for the preceding

It is not clear what SSCs the HPCS diesel generator provides power to. To ensure the HPCS diesel generator testing does not impact other equipment besides the HPCS pump and the associated support equipment.

- a. Please provide the relationship between the HPCS diesel generator and the above SSCs.
- b. Please confirm that the HPCS diesel generator is dedicated to the HPCS system and not providing other functions.

EEOB RAI 3

Section 8.3.1, "AC Power Systems (Onsite)," of NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR Edition – Electric Power," states, in part, that in reviewing the mode of operation where both power systems are being operated in parallel, the interlock scheme, including electrical protective relay coordination and settings, is closely examined to verify that the independence of the necessary redundant portions of the onsite power system is established upon a failure in the offsite power system. The event of concern under this mode of operation is an accident concurrent with a LOOP and a single failure preventing the opening of the feeder-isolation breaker through which the paralleling of the power systems was being accomplished. Because the signal to start the diesel generator sets is normally derived from undervoltage relays, and under this situation the voltage is maintained above the trip relay settings by the diesel generator under test, the remaining redundant diesel generators will not be commanded to start running. Consequently, the added capacity resulting from the connection of non-safety-related loads to the diesel generator under test will cause the tripping of this diesel due to overload or under-frequency. The end result could be the total loss of power to the safety buses.

Subsection 3.2.1, "General Basis," of the LAR states, in part, that the effect on safety of performing the subject SRs for the Division 3 DG during plant operation is not significantly different than the effect on safety associated with the performance of other DG surveillances required by the TS that are not prohibited from being performed during plant operation. For example, SRs 3.8.1.9, 3.8.1.10, and 3.8.1.17 are performed by paralleling the DG in test with offsite power, similar to the existing monthly run of the DG, which is conducted with the plant online.

It is not clear, during the online load rejection testing of the Division 3 DG, in which the DG is paralleled to the offsite power, what the impact is to the safety buses if an event of loss of offsite power (LOOP), with or without LOCA, occurs.

Please provide a discussion of how the Division 3 DG and its associated equipment, during the online load rejection testing, respond to a LOOP and/or LOCA signal and the impact of the equipment responses to the safety buses.

=====

The licensee agreed during the clarification calls to respond to all these RAIs preferably, by COB April 12, 2019, or by no later than April 26, 2019.

If you have any questions, please contact me at (301) 415-3308.

Bhalchandra K. Vaidya
Licensing Project Manager
NRC/NRR/DORL/LPL3
(301)-415-3308 (O)
bhalchandra.vaidya@nrc.gov

Hearing Identifier: NRR_DMPS
Email Number: 889

Mail Envelope Properties (BN7PR09MB259584A3BA9DC21673F00CC18D590)

Subject: Request for Additional Information (RAI)-LaSalle 1 and 2,
EPID-L-2018-LLA-0162, LAR RE: Removal of Operating Mode Restrictions for Performing Surveillance
Testing of the Div 3 Battery and HPCS DG

Sent Date: 3/28/2019 6:45:40 AM

Received Date: 3/28/2019 6:45:00 AM

From: Vaidya, Bhalchandra

Created By: Bhalchandra.Vaidya@nrc.gov

Recipients:

"david.gullott@exeloncorp.com" <david.gullott@exeloncorp.com>

Tracking Status: None

"Sprengel, Ryan:(GenCo-Nuc)" <Ryan.Sprengel@exeloncorp.com>

Tracking Status: None

Post Office: BN7PR09MB2595.namprd09.prod.outlook.com

Files	Size	Date & Time
MESSAGE	9213	3/28/2019 6:45:00 AM

Options

Priority: Standard

Return Notification: No

Reply Requested: No

Sensitivity: Normal

Expiration Date:

Recipients Received: