

Guzman, Richard

From: Guzman, Richard
Sent: Thursday, September 26, 2019 6:03 PM
To: 'Shayan Sinha'
Subject: Millstone Unit 2 - LAR to revise TS 3.8.1.1, Extension of AOT - DRAFT Supplemental Information Needed to Accept Application for Review - (EPID: L-2019-LLA-0177)

Shayan,

As we discussed, the NRC staff has determined the subject license amendment request is “unacceptable with opportunity to supplement” per NRR Office Instruction LIC-109, “Acceptance Review Procedures.” Shown below are the draft information insufficiencies identified by the NRC staff. In order to make the application complete, the staff requests that the licensee supplement its application to address the insufficiencies described in parts 1.a and 1.b below.

Please let me know your group’s availability for a conference call next week. At this time, we can support a call on Tuesday 1-4pm, Thursday 2-4pm, and Friday 10-12p.

Thanks,

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SUPPLEMENTAL INFORMATION NEEDED  
LICENSE AMENDMENT REQUEST RELATED TO REVISE  
TS 3.8.1.1, "A. C. SOURCES - OPERATING,"  
TO SUPPORT MAINTENANCE AND REPLACEMENT OF THE  
MILLSTONE UNIT 3 'A' RESERVE STATION SERVICE TRANSFORMER AND 345 KV  
SOUTH BUS SWITCHYARD COMPONENTS

By letter dated August 14,2019 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML19234A111), Dominion Energy Nuclear Connecticut, Inc., (DENC, the licensee) submitted a license amendment request (LAR) for the Millstone Power Station Unit 2 (MPS2). The proposed LAR would revise Technical Specification (TS) 3.8.1.1, "A. C. Sources - Operating," to add a permanent Required Action (a.3) that provides an option to extend the allowed outage time (AOT) from 72 hours to 10 days for one inoperable offsite circuit. In addition, the licensee proposes a one-time exception to the new proposed Required Action a.3 that would extend the AOT to 35 days for one inoperable offsite circuit. Use of the 35-day AOT would allow replacement of the MPS3 'A' RSST, its associated equipment, and other 345 kV south bus switchyard components that are nearing the end of their dependable service life. This work is planned to take place no later than the fall 2023 outage (3R22) for Millstone Power Station, Unit 3 (MPS3).

The licensee states in the application that the proposed changes have been deterministically evaluated in accordance with the guidance of NUREG-0800, Branch Technical Position (BTP) 8-8, "Onsite (Emergency Diesel Generators) and Offsite Power Sources Allowed Outage Time Extensions," dated February 2012. Deviations from the deterministic criteria provided in BTP 8-8 that require supplemental risk information are supported by an evaluation consistent with Regulatory Guide (RG) 1.174, Rev. 3 and RG 1.177, Rev. 1.

The U.S. Nuclear Regulatory Commission (NRC) staff's acceptance review of this LAR was performed to determine if there is sufficient technical information in scope and depth to allow the NRC staff to complete its detailed technical review. The acceptance review is also intended to identify whether the application has any readily apparent information insufficiencies in its characterization of the regulatory requirements or the licensing basis of the plant.

Consistent with Section 50.90 of Title 10 of the *Code of Federal Regulations* (10 CFR), an amendment to the license (including the technical specifications) must fully describe the changes requested, and following as far as applicable, the form prescribed for original applications. Section 50.34 of 10 CFR addresses the content of technical information required. This section stipulates that the submittal address the design and operating characteristics, unusual or novel design features, and principal safety considerations.

The NRC staff has reviewed your application and concluded that the following information is necessary to enable the NRC staff to make an independent assessment regarding the acceptability of the proposed amendments in terms of regulatory requirements and the protection of public health and safety and the environment.

1. In Section 3.9 of the LAR, "MPS2 FLEX Strategy," the licensee states that "during the proposed permanent TS Required Action and one-time exception, DENC will utilize the FLEX diesel generators as a supplemental power source to the inoperable offsite power source. The technical evaluation to support this approach is provided in Section 4.0."

In Section 4.2 of the LAR, "Supplemental Power Source (SPS) for Extended AOTs," the licensee states, "DENC proposes to use the onsite 480 V FLEX diesel generators as the supplemental power source for the inoperable offsite circuit, to mitigate a postulated LOOP event. The FLEX diesel generators are selected as the supplemental power source because the MPS2 EDGs (which are the first line of defense) cannot be credited."

In Section 4.2.2 of the LAR, "Initial Conditions – Electrical Power Configuration (for 10-Day/35-Day AOTs), the licensee lists as one of the initial conditions: "FLEX 4160 V portable generators are stored offsite but are available for connection to MPS2 4160 V bus 24D."

In Section 4.3 of the LAR, "Assessment Against Branch Technical Position 8-8," the licensee states the following:

Two 4160 V generators are stored offsite in the NSRC [National SAFER Response Center] storage facility. These 4160 V generators would be used (as requested) to allow operators to place the unit in cold shutdown, if the alternative actions are unable to restore power. Therefore, the intent of this criterion is met. [...]

The deployment of the 480 V FLEX diesel generator and re-powering 480 V bus 22F within the timeline described in Table 1-3 will allow operators (as directed by the appropriate FSG procedure) to restore power to recharge the battery prior to depletion and to maintain RCS inventory. However, the onsite 480 V FLEX diesel generator will be connected to MPS2 480 V bus 22F within 13 hours rather than one hour. Stripping of non-required DC and vital 120 V instrument loads shows that battery life is extended to 29 hours (Reference 1-37), well beyond the time battery charging will be restored via re-powering 480 V bus 22F.

The staff finds that the application as submitted does not include information demonstrating that the proposed change meets the intent of the criteria identified in BTP 8-8. Specifically:

- a. The supplemental power source must demonstrate that it has enough capacity to carry all LOOP loads to bring the unit to a cold shutdown without any load shedding.
- b. To support the one-hour time for making this power source available, plants must assess their ability to cope with loss of all AC power for one hour independent of an AAC power source. The plant should have formal engineering calculations for equipment sizing and protection and have approved procedures for connecting the AAC or supplemental power sources to the safety buses.

Based on the above, the staff requests the licensee to provide technical justification to demonstrate how it meets the applicable criteria in BTP 8-8.

- 2. Additionally, the NRC staff noted the following items for the licensee to consider when evaluating its response to the above acceptance review items and supplementing its LAR as appropriate:
  - a. The proposed TS markups do not discuss the compensatory measures and risk management actions taken during extended AOT. Since the NRC staff's review of the amendment considers the adequacy of compensatory measures and risk management actions, it is the staff's expectation that these items would be referenced in the TS markup.
  - b. The LAR and the proposed TS do not discuss information concerning the proposed actions to be taken should severe weather conditions be anticipated prior to the scheduled transformer maintenance and replacement activities or if a severe thunderstorm warning or tornado warning is issued after entering TS Required Action a.3.
  - c. The LAR states that the proposed activities for the permanent 10-day and the one-time 35-day offsite power AOT extensions are completed when Unit 3 is in Mode 5, 6, or defueled. However, the proposed Unit 2 TS markup does not indicate Unit 3 Mode(s) for entry into Required Action a.3 of TS 3.8.1.1.
  - d. In several instances, the LAR references NRC draft Revision 1 of BTP 8-8 dated March 2018, and provides discussion of how the proposed change meets the proposed draft staff positions. The NRC staff has not issued the revised BTP as approved guidance for generic use. While the NRC staff's safety evaluation of the LAR will consider the plant-specific justifications provided by the licensee, it will not be evaluated against a draft (unapproved) update to the generic guidance.
  - e. In Table 1-1 and 1-2 of the LAR, the licensee provided the duration (in days) for the various work/preventative maintenance activities and contingencies supporting both the proposed permanent 10-day and one-time 35-day AOTs. However, the licensee did not provide justification for the duration of the requested AOT (actual hours plus margin) based on plant-specific past operating experience.

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