

NRR-PMDAPEm Resource

From: Saba, Farideh
Sent: Friday, October 26, 2012 10:47 AM
To: Murray, William R. (Bill); Grzeck, Lee
Cc: Billoch, Araceli
Subject: RAIS for Brunswick LAR, EDG CT Extension (TACs ME8893, ME8894)
Attachments: ME8893-4_BR 1-2_RAI_LAR for Extension CT for EDG.docx

Importance: High

Bill,

Please see the attached request for additional information (RAIs) from the electrical branch (EEEB) for the subject license amendment request. Please let me know if you have any questions regarding these RAIs. I am requesting that you respond to these RAIs within 45 days of the date of this email. Please let me know if you cannot support this due date.

Also, please note that you will be receiving RAIs from the PRA branch (APLA) next week.

Thanks,

Farideh

Farideh E. Saba, P.E.
Senior Project Manager
NRC/ADRO/NRR/DORL
301-415-1447
Mail Stop O-8G9A
Farideh.Saba@NRC.GOV

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Created By: Farideh.Saba@nrc.gov

Recipients:

"Billoch, Araceli" <Araceli.Billoch@nrc.gov>
Tracking Status: None
"Murray, William R. (Bill)" <Bill.Murray2@pgnmail.com>
Tracking Status: None
"Grzeck, Lee" <Lee.Grzeck@pgnmail.com>
Tracking Status: None

Post Office:

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MESSAGE	681	10/26/2012 10:46:00 AM
ME8893-4_BR 1-2_RAI_LAR for Extension CT for EDG.docx		34457

Options

Priority: High
Return Notification: No
Reply Requested: Yes
Sensitivity: Normal
Expiration Date:
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BRUNSWICK, UNITS 1 AND 2 – REQUEST FOR ADDITIONAL INFORMATION (RAI)
REGARDING CHANGES TO TECHNICAL SPECIFICATIONS FOR EXTENSION OF
COMPLETION TIME FOR EMERGENCY DIESEL GENERATORS
(TAC NOS. ME8893, ME8894)

By letter dated June 19, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12173A112), Carolina Power & Light. (the licensee) submitted a request for amendment to Renewed Facility Operating License Nos. DPR-71 and DPR-62, for Brunswick Steam Electric Plant, Unit Nos. 1 and 2. The license amendment request proposed changes to Technical Specification (TS) 3.8.1, which would extend the TS Completion Time (CT) for an inoperable Emergency Diesel Generator (EDG) from 7 days to 14 days, provided a supplemental power source is available during the CT extension period.

The Nuclear Regulatory Commission staff finds that additional information is needed to complete its review. Please send your response to these RAIs within 45 days of this email.

RAI-1

Provide a latest legible copy of the Brunswick Key One Line Diagram showing 230 kV, 24 kV and 4160 V Systems (Copy of the diagram currently available with the NRC staff is not legible).

RAI-2

The licensee stated in the LAR, Enclosure 1, Page 12, that two 200 kW, 480 VAC 60 Hz diesel generators, referenced as severe accident management alternative (SAMA) diesel generators, are available to supply the blackout unit battery chargers if AC power cannot be restored to any emergency bus of the blackout unit (i.e., if the crosstie is not possible).

Provide one-line drawing(s) showing the SAMA diesel generators' connection to the electrical distribution buses.

RAI-3

The licensee stated in the LAR, Enclosure 1, Page 14, that the SUPP-DG electrical system will be provided with metering and protective relaying at the SUPP-DG output breaker and the new BOP [Balance-of-Plant] Bus switchgears.

Describe and provide a copy of the metering and protective relaying design for the SUPP-DG and the new BOP Bus switchgears. Also, describe measures which will be taken to maintain electrical separation between the two trains of BOP buses to which the SUPP-DG can be connected.

RAI-4

The licensee stated in the LAR, Enclosure 1, Page 13, that the SUPP-DG will be of commercial-grade type, non Class 1E, permanently-installed inside the plant protected area, and outside the existing power block building; east of the switchyard and north of the transformer yard.

Provide a plant physical drawing showing the proposed physical location of major components of the SUPP-DG, such as the diesel enclosure, electrical enclosure, mechanical enclosure, radiator, fuel storage tank, and refill station for the tank.

RAI-5

The licensee stated in the LAR, Enclosure 1, Page 15, that the Electrical Enclosure will house the SUPP-DG output breaker switchgear, engine/generator control panel, 125 V DC battery system with battery charger, 4160:480 V auxiliary power transformer, 480 V automatic transfer switch, and 480 V motor control center.

Provide one line diagram of the above AC and DC electrical equipment to be located in the Electrical Enclosure.

RAI-6

The licensee stated in the LAR, Enclosure 1, Page 15, that the fuel storage tank can be replenished via a refill station for the tank.

Provide details of refill station such as the source of fuel for the refill station, and the source of any power supply needed at the refill station including a brief description of procedures used to replenish the tank.

RAI-7

Justify why the regulatory commitments for the following additional compensatory actions as recommended in the NRC Branch Technical Position (BTP) 8-8 have not been provided:

(1) The system load dispatcher will be contacted once per day to ensure no significant grid perturbations (high grid loading unable to withstand a single contingency of line or generation outage) are expected during the extended completion time (CT), and

(2) TS required systems, subsystems, trains, components, and devices that depend on the remaining power sources will be verified to be operable and positive measures will be provided to preclude subsequent testing or maintenance activities on these systems, subsystems, trains, components, and devices.

RAI-8

The licensee stated in the LAR, Enclosure 1, Page 14, that the time required to enable the SUPP-DG to supply power to any E-Bus is within one hour from the SBO event.

Confirm that a coping analysis has been performed which shows that the SBO unit can remain in a safe shutdown condition without any AC power for the first hour of the SBO event.

RAI-9

According to BTP Page 8-8-6, although the extended CT is allowed for pre-planned maintenance activities, it could be used for corrective maintenance on a limited bases. Confirm that the licensee will continue to meet the maintenance rule availability/reliability requirements, the reactor oversight process performance indicator criteria for availability/reliability, and the emergency diesel generator target reliability criterion of 0.975.