

FAQ 71.5



Plant: Oconee

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Performance Indicator: MS06 MSPI Emergency AC Power System

Site-Specific FAQ (Appendix D)? Yes

FAQ requested to become effective when approved.

Question Section

- Is it acceptable to use the segment approach as described in NEI 99-02, Revision 5, Appendix F, page F-3, line 40, for the Oconee Emergency AC Power System to change from 2 trains to 4 segments?
- Is it acceptable to use plant specific Maintenance Rule data from 2002-2004 to calculate the Unplanned Unavailability Baseline for the Oconee Emergency AC Power System? Oconee is requesting to use the same approach as the cooling water systems, as described in NEI 99-02, Appendix F, page F-10, line 13.

NEI 99-02 Guidance needing interpretation (include page and line citation):

NEI 99-02, Revision 5, Appendix F, page F-3, line 12 states “For emergency AC power systems the number of trains is the number of class 1E emergency (diesel, gas turbine, or hydroelectric) generators at the station that are installed to power shutdown loads in the event of a loss of off-site power.”

NEI 99-02, Revision 5, Appendix F, page F-10, line 5 – 11 states, “If a front line system is divided into segments rather than trains, the following approach is followed for determining the generic unplanned unavailability:

1. Determine the number of trains used for SSU unavailability reporting that was in use prior to MSPI
2. Multiply the appropriate value from Table 1 by the number of trains determined in (1).
3. Take the result and distribute it among the MSPI segments, such that the sum is equal to (2) for the whole MSPI system.”

Table 1 of Appendix F details the Unplanned Unavailability Baseline data based on ROP Industry wide data. To accurately reflect unplanned unavailability of the Oconee

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Emergency AC Power System, the plant specific data should be used to determine a baseline.

Event or circumstances requiring guidance interpretation:

In the original MSPI Basis Document, the Oconee Emergency AC Power System was identified as two independent, separate trains. This was a simplified, conservative categorization that was chosen to meet the guidance per Appendix F, Page F-3, line 12 for Emergency AC Power Systems.

The Oconee Emergency AC Power System is unique in the fact that it is a hydroelectric system, significantly different in design from other plants which use diesel generators as their Emergency AC Power. Keowee Hydro Station consists of two hydroelectric units which connect to all three Oconee Units. These hydro units are connected to each Oconee unit through an overhead power path, as well as, through an underground power path. The Keowee units are interchangeable and can supply either path, which differs from a normal diesel generator train lineup. This unique arrangement of Keowee (i.e. two independent power paths with two interchangeable power sources) requires the use of a segment approach (as opposed to the two-train approach) to accurately reflect the risk profile of our Emergency Power System. Currently the base PRA model for the Oconee Emergency Power system accounts for the different segments; therefore, no changes need to be made to the base PRA model to incorporate this change.

Redefining the Emergency AC Power System into four segments, i.e. each Keowee unit is a segment and each power path a segment, using the same approach as described for Cooling Water Systems, will more accurately reflect the risk profile of the Oconee Emergency AC Power System.

The N (Normal) breakers are no longer going to be included as monitored components. Also, the FV/UA max will no longer be the FV associated with the N breakers. These changes are due to the fact that the N breaker itself, as well as a failure of the N breaker, is outside the scope of the NEI guidance for Emergency AC power systems.

Licensee and NRC resident/region agree on the facts and circumstances

This FAQ was given to Dan Rich, Senior Resident Inspector (SRI), for review. The feedback that was provided to the licensee was that he and the Region do not object to the segmented method; however, he stated that this new reporting method does not accurately reflect the risk profile for the Emergency AC Power System with respect to the dual-unit outages allowed by Oconee's Technical Specifications.

Potentially relevant existing FAQ numbers

N/A

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Response Section

Appendix D since this is an Oconee unique issue.

Proposed Resolution of FAQ

In order to remove the unnecessary conservatism in our MSPI model and more accurately depict the Oconee design, Duke proposes to use the four segment approach for the Emergency AC Power System. Each Keowee unit is a segment, and each power path is a segment. The segment approach is described in NEI 99-02, Appendix F, page F-3, line 40, for Cooling Water Systems. Oconee is requesting to use the same approach with its Emergency AC Power System.

Duke also proposes to update Table 1 in NEI 99-02, Appendix F-9, to reflect that the unplanned unavailability baseline data associated with Oconee Emergency AC system is plant specific Maintenance Rule data for 2002-2004, as seen with Cooling Water Systems described in NEI 99-02, Appendix F, page F-10, line 13.