Grand Gulf Nuclear Station (GGNS)

License Amendment Request re: Emergency Diesel Generator (EDG) Extended Allowed Out-of-Service Time

(Ref. GNRO-2002/00007 dated January 31, 2002)

During review of the proposed changes in the referenced submittal, the NRC Electrical Engineering Section (EEIB) staff has prepared the following DRAFT questions for discussion and clarification during a forthcoming telephone conference. Responses to these questions are required in order for the EEIB staff to proceed further with its review:

1. Discuss and provide information on the reliability and availability of offsite power sources relating to the proposed change. The discussion should include duration, cause, date and time of each loss-of-offsite power (partial or complete) event.

2 It is the staff's understanding that the purpose of the requested amendment is to allow an increased outage time during plant power operation for performing EDG inspection, maintenance, and overhaul, which would include disassembly of the EDG. EDG operability verification after a major maintenance or overhaul may require a full load rejection test. If a full load rejection test is performed at power, please address the following:

   a. What would be the typical and worse-case voltage transients on the 4160-V safety buses as a result of a full-load rejection?
   b. If a full-load rejection test is used to test the EDG governor after maintenance, what assurance would there be that an unsafe transient condition on the safety bus (i.e., load swing or voltage transient) due to improperly performed maintenance or repair of a governor would not occur?
   c. Using maintenance and testing experience on the EDGs, identify possible transient conditions caused by improperly performed maintenance on the EDG governor and voltage regulator. Discuss the electrical system response to these transients.
   d. Provide the tests to be performed after the overhaul to declare the EDG operable and provide justification of performing those tests at power.

3. What type of communication has been established between the control room operator of Grand Gulf Nuclear Station and the System Load Dispatcher? Is the System Load Dispatcher notified in advance that the EDG is going to be out of service for an extended period of time?

4. It is stated that the Division 3 EDG can be cross-connected to either Division 1 or Division 2 AC buses to provide an alternate AC power source in the event of a station blackout. In this regard provide the following information:

   a. Is this a permanent cross-connection? How long would it take to accomplish this connection?
   b. Demonstrate that the Division 3 EDG has enough capacity to power loads that are needed for a station blackout and a loss of offsite power.
   c. Can this EDG be qualified as an alternate AC source according to the recommendation of Regulatory Guide 1.155," Station Blackout?

5. Please provide the unavailability data for the EDG's at Grand Gulf due to maintenance and describe how it is consistent with the objectives and intent of the maintenance rule.

   Please clarify that since availability of HPCS EDG is essential during the extended AOT, why is it not listed in the commitment identification form?