

## Lent, Susan

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**From:** Sebrosky, Joseph  
**Sent:** Tuesday, February 12, 2013 9:34 AM  
**To:** 'Soenen, Philippe R'; 'Schrader, Kenneth'  
**Cc:** Polickoski, James; Waig, Gerald; Matharu, Gurcharan; Lent, Susan  
**Subject:** NRC staff feedback on proposed Pacific Gas and Electric license amendment request related to Diesel Generator Technical Specifications for Diablo Canyon

Philippe Soenen  
Regulatory Services – Diablo Canyon Power Plant

In a January 15, 2013, public meeting and as documented in a February 6, 2013, meeting summary (Agencywide Documents Access and Management System Accession No. ML13018A124) the NRC staff took an action to provide feedback on Pacific Gas and Electric's (PG&E) proposal related to a forthcoming license amendment request to change some Diesel Generator (DG) Technical Specification Surveillance Requirements (SRs). The purpose of this email is to provide feedback in accordance with the action from the January 15, 2013, meeting. Specifically, the NRC staff indicated that it would provide the following feedback:

*Whether or not the DG frequency bands in SRs 3.8.1.2 and 3.8.1.7 should also be changed. PG&E had stated that it would be proposing a change in the DG frequency bands for SRs 3.8.1.11 and 3.8.1.19 from 61.2 Hz to 60.8 Hz because of a concern related to the rating of the DGs during these SRs that require the DG to be fully loaded. From PG&E's perspective, the DG frequency bands for SRs 3.8.1.2 and 3.8.1.7 do not need to change because the DG is not fully loaded during these surveillances. The NRC staff indicated that it would consider PG&E's position, but the staff did express a concern that if approved, the DG SR frequency bands would be different for different SRs and this proposed change may not be consistent with the analysis or design basis.*

The staff has considered your position as stated in the meeting and provides the following for your consideration prior to the submittal of your license amendment request. Please note that this information is for consideration only. If the license amendment is submitted, it will be reviewed in accordance with established processes and if it is found that additional information is needed formal requests for additional information will be issued.

### BACKGROUND

The purpose of the Emergency DGs is usually described in FSAR Section 8.3 (i.e. to supply a highly reliable, self-contained source of power in the event of a complete loss of off-site power). The DGs are designed to provide sufficient power for the electrical loads required for a safe shutdown of the plant. This includes the loads required to mitigate the effects of a design basis LOCA with a complete loss of off-site power plus a single failure in the on-site power system. For a dual unit site, this includes the loads required to mitigate the effects of a design basis LOCA on one unit with a complete loss of off-site power plus a single failure in the on-site power system, concurrent with a safe shutdown on the other unit.

The Standard Technical Specifications (NUREGs 1430-1434) define "operable/operability" as follows:

*A system, subsystem, train, component, or device shall be OPERABLE or have OPERABILITY when it is capable of performing its specified safety functions, and when all necessary attendant instrumentation, controls, normal or emergency electrical power, cooling and seal water, lubrication and other auxiliary equipment that are required for the system, subsystem, train, component, or device to perform its function(s) are also capable of performing their related support function(s).*

In order to be considered operable, structures, systems and components (SSC) must be capable of performing the safety functions specified by its design, within the required range of design physical conditions, initiation

times, and mission times. In addition, TS operability considerations require that SSCs meet all surveillance requirements (as specified in Surveillance Requirement (SR)). A SSC that does not meet a SR must be declared inoperable. For operability determination purposes, the mission time is the duration of SSC operation that is credited in the design basis for the SSC to perform its specified safety function.

## CONCLUSION

The NRC's Electrical Engineering Branch staff considers that all SRs in TS 3.8.1 associated with DGs demonstrate its operational readiness to perform its intended design functions as delineated in the FSAR Section 8.3. The staff notes that the proposed change modifies frequency requirements only for SRs 3.8.1.11 and 3.8.1.19. The staff believes that the frequency requirements in SR 3.8.1.2 and SR 3.8.1.7 (along with voltage requirements) specified for slow and fast starts (irrespective of automatic or manual control) also need to be changed to demonstrate the EDGs' capability to support its required design functions.

Therefore, all frequency and voltage requirements should envelope the accident performance requirements when performing SRs required to demonstrate operational readiness of EDGs.

Please let me know if you have any questions.

Sincerely,

Joe Sebrosky  
Project Manager  
Nuclear Regulatory Commission  
Division of Operating Reactor Licensing  
[joseph.sebrosky@nrc.gov](mailto:joseph.sebrosky@nrc.gov)  
301-415-1132

Joe Sebrosky  
Project Manager (Diablo Canyon Power Plant)  
Nuclear Regulatory Commission  
Division of Operating Reactor Licensing  
[joseph.sebrosky@nrc.gov](mailto:joseph.sebrosky@nrc.gov)  
301-415-1132