

ENCLOSURE

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)	Docket No. 50-275
PACIFIC GAS AND ELECTRIC COMPANY)	Facility Operating License
)	No. DPR-80
Diablo Canyon Power Plant)	Docket No. 50-323
Units 1 and 2)	Facility Operating License
)	No. DPR-82

License Amendment Request No. 95-03

Pursuant to 10 CFR 50.90, Pacific Gas and Electric Company hereby applies to amend its Diablo Canyon Power Plant Facility Operating License Nos. DPR-80 and DPR-82 (Licenses). The proposed changes revise the Technical Specification (Appendix A of the Licenses) 3/4.8.1.1, "A.C. Sources, Operating."

Information on the proposed changes is provided in Attachments A, B, and C.

These changes have been reviewed and are considered not to involve a significant hazards consideration as defined in 10 CFR 50.92 or an unreviewed environmental question. Further, there is reasonable assurance that the health and safety of the public will not be endangered by the proposed changes.

Sincerely,

Gregory M. Rueger

Subscribed and sworn to before me
this 19th day of April 1995

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ATTACHMENT A

REVISION OF TECHNICAL SPECIFICATION 3/4.8.1.1 - REVISE DIESEL GENERATOR SURVEILLANCE REQUIREMENTS

A. DESCRIPTION OF AMENDMENT REQUEST

This license amendment request (LAR) would revise Technical Specification (TS) 3/4.8.1.1, "A.C. Sources, Operating," as follows:

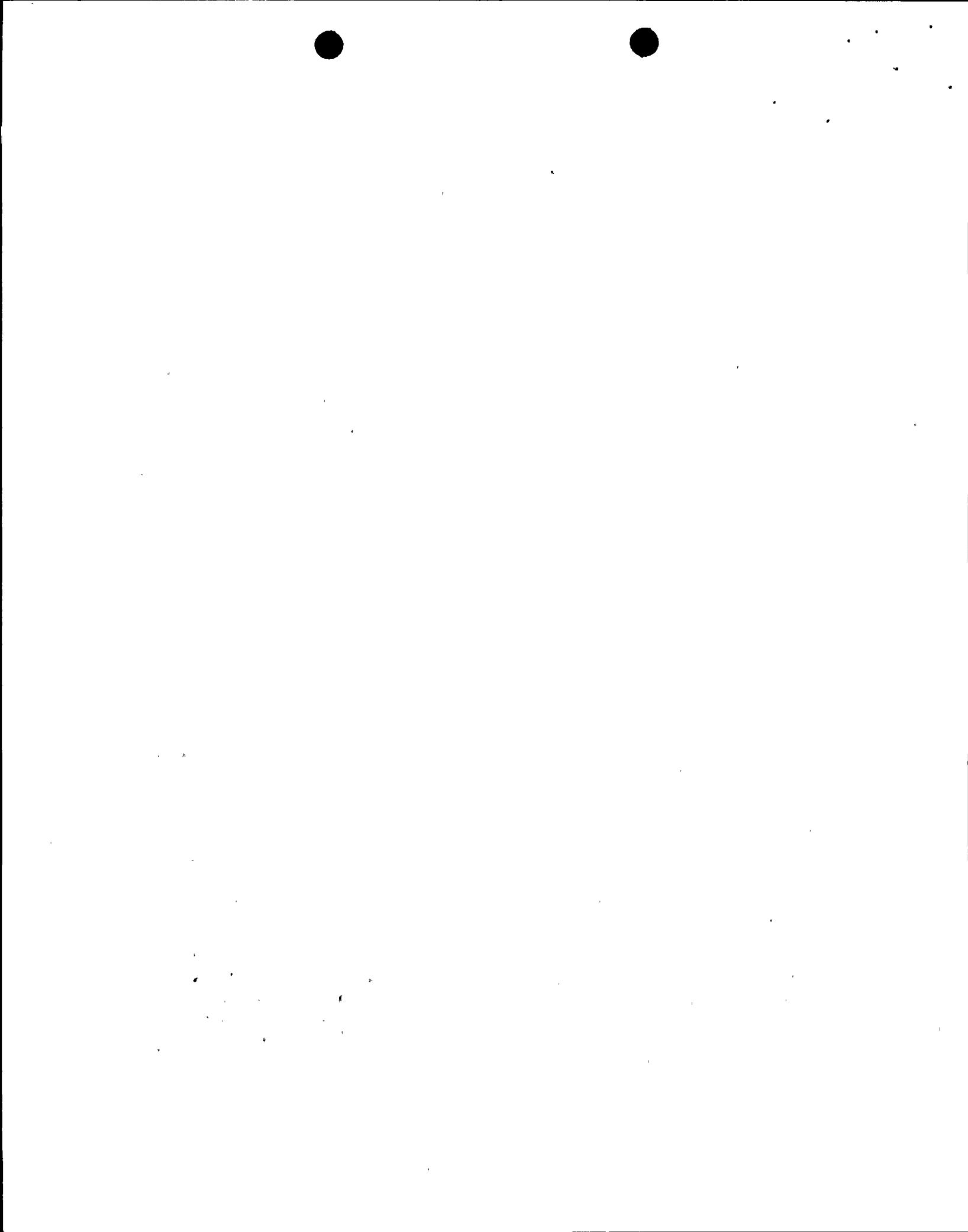
1. TS 4.8.1.1.2b.8), emergency diesel generator (EDG) 24-hour load run and hot restart surveillance, would be revised to delete the requirement to perform TS 4.8.1.1.2b.5)b), loss of offsite power (LOOP) load sequencing surveillance, within 5 minutes following the 24-hour test.
2. New TS 4.8.1.1.2e. would be added to perform an EDG hot restart test within 5 minutes of shutting down the EDG after the EDG has operated for at least 2 hours at a load of greater than or equal to 2484 kW.
3. TS 4.8.1.1.2b.8), TS 4.8.1.1.2e., and footnote ** on page 3/4 8-5 would be changed to be cycle-specific, with the new TS requirements effective for Units 1 and 2, Cycle 8 and after.

Changes to the TS are noted in the marked-up copy of the applicable TS pages provided in Attachment B. The proposed TS pages are provided in Attachment C.

B. BACKGROUND

The Diablo Canyon Power Plant (DCPP) electrical power system consists of an offsite system and an onsite system. The offsite power system is comprised of a 230 kV and 500 kV transmission system. The onsite power system consists of a distribution system normally supplied by the offsite power system. The distribution system consists of 12 kV and 4160 volt systems. In the event of a Loop, the vital portions of the 4160 volt onsite power system are supplied by six EDGs (three dedicated EDGs per unit).

The 4160 volt system is a three-phase system that serves motors from 200 to 3000 hp and transformers for the smaller, lower voltage loads. The 4160 volt loads are supplied from five 4160 volt buses; three of these buses are vital buses. The 4160 volt vital buses can be supplied power from the main generator (or the offsite 500 kV system) via the auxiliary transformers or from the offsite 230 kV system via the startup transformers. If offsite power is unavailable, power to the 4160 volt vital buses is supplied by the EDGs. Each EDG consists of a self-contained diesel engine directly connected to an A.C. generator. Since two out of three 4160 volt vital buses are required for safe shutdown of a unit, this configuration ensures that two EDGs and two vital buses are available even with a single failure of an EDG.



C. JUSTIFICATION

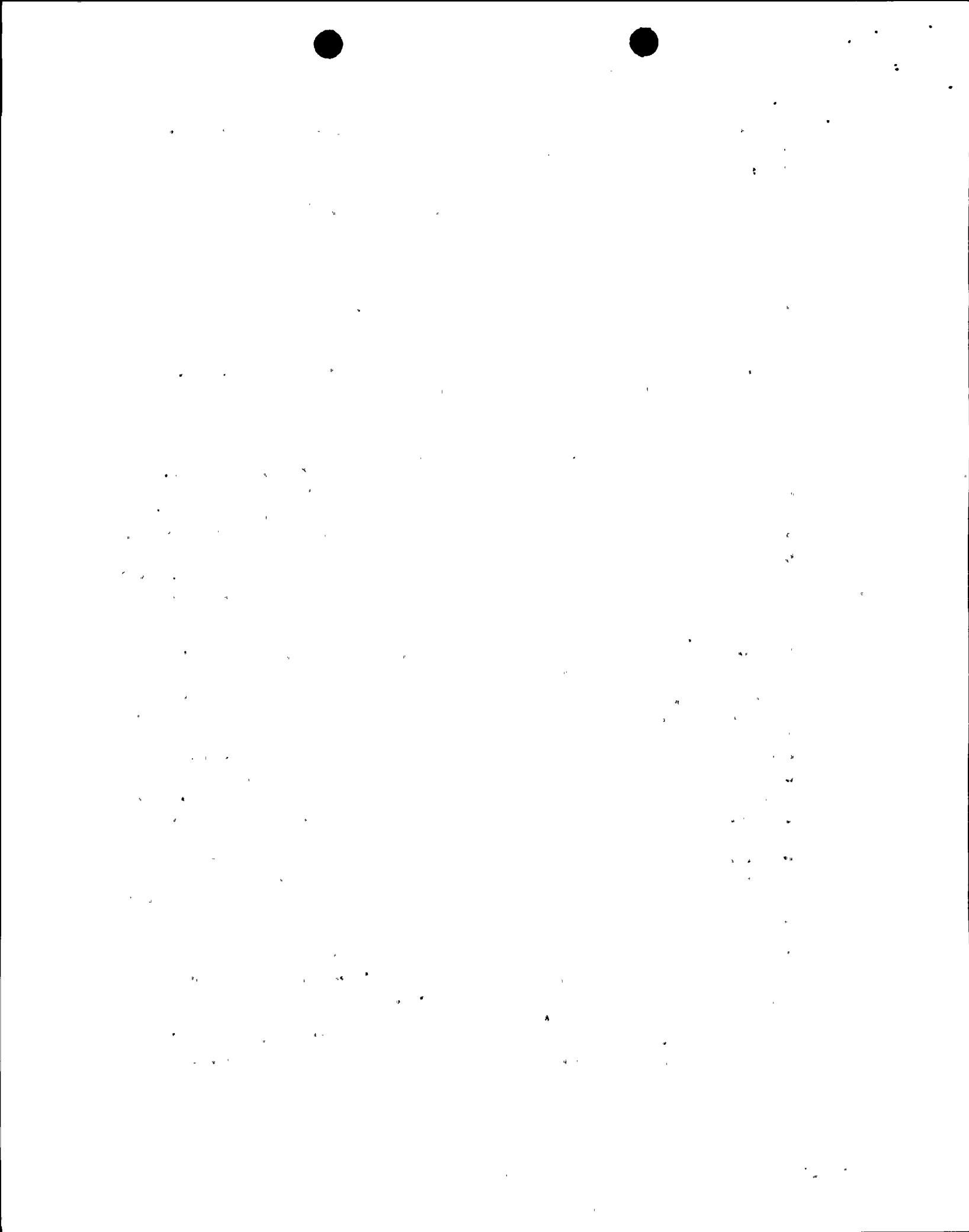
Regulatory Guide (RG) 1.108, "Periodic Testing of Diesel Generator Units Used as Onsite Electric Power Systems at Nuclear Power Plants," Revision 1, August 1977, Position C.2.a(5) requires demonstration of functional capability of the EDG at full load temperature conditions. Position C.2.a(5) provides the basis for the requirement to verify EDG hot restart capability by re-running the LOOP load sequencing test immediately following the 24-hour load test.

TS 4.8.1.1.2b.8) verifies EDG hot restart capability by initiating a LOOP load sequencing test within 5 minutes of completing the 24-hour EDG run. If the LOOP load sequencing test is not satisfactorily completed within 5 minutes of completing the 24-hour EDG run, a separate test may be performed to verify the hot restart LOOP load sequencing capability of the EDG. The separate test requires that the EDG be operated with a load of 2484 kW for 1 hour or until operating temperatures stabilize. Following this warm-up of the EDG, the LOOP load sequencing test can be performed.

The changes proposed in this LAR would improve overall outage safety. Because the LOOP load sequencing test requires securing of vital loads on the associated 4160 volt vital bus and then automatically re-loading the LOOP loads onto the bus, this test impacts the outage safety plan by de-energizing the bus. Therefore, eliminating LOOP load sequencing as the EDG hot restart test would reduce challenges to plant safety systems and increase availability of the vital bus loads. The proposed changes would also reduce the potential for loss of vital equipment that provides core cooling during an outage due to inadvertent misalignment during testing.

In addition, the changes proposed in this LAR could save outage critical path time. The outage is scheduled so that the refueling sequence is the critical path for outage completion. EDG work is usually scheduled to be completed just prior to completion of the refueling sequence. If the refueling work is completed in a shorter duration than projected, or if there is emergent scope to the EDG work, then the EDGs would become the critical path. For the Unit 1 sixth refueling outage, the EDGs became critical path. During an outage, the separate 1-hour warm-up test prior to the LOOP load sequencing test is usually required to be performed because the required auto-connected loads are not available when the 24-hour EDG load test is performed. The necessity to perform the 1-hour EDG warm-up requires approximately 30 minutes for equipment availability verification, 30 minutes for EDG pre-firing checks, and 90 minutes for EDG run time, load reduction, and shutdown. This could result in an increase in critical path outage time of 3 hours for each EDG, or an additional 9 hours of total outage critical path time.

The proposed TS changes would eliminate sequencing of the LOOP loads during the hot restart test and add new TS 4.8.1.1.2e., which could be performed in any operating condition (i.e., not limited to performance during shutdown). Therefore, the hot restart test could be scheduled either immediately following the 24-hour load run, or following any other EDG load run at greater than or equal to 2484 kW for a minimum of 2 hours. The proposed minimum 2-hour EDG run prior to restart is similar to the monthly surveillance test required during power operation.



Since the DCPP EDGs were not tested to the proposed TS requirements for the current Cycle 7 for Units 1 and 2, the proposed TS are cycle-specific for Units 1 and 2, Cycle 8 and after.

These proposed changes are consistent with NUREG-1431. These changes are also similar to license amendments issued for Nine Mile Point Unit 2 and Salem Units 1 and 2.

D. SAFETY EVALUATION

Demonstrating EDG hot restart capability without loading the EDG with LOOP loads does not invalidate or reduce the effectiveness of the test, provided normal operating temperatures are achieved prior to demonstrating hot restart capability.

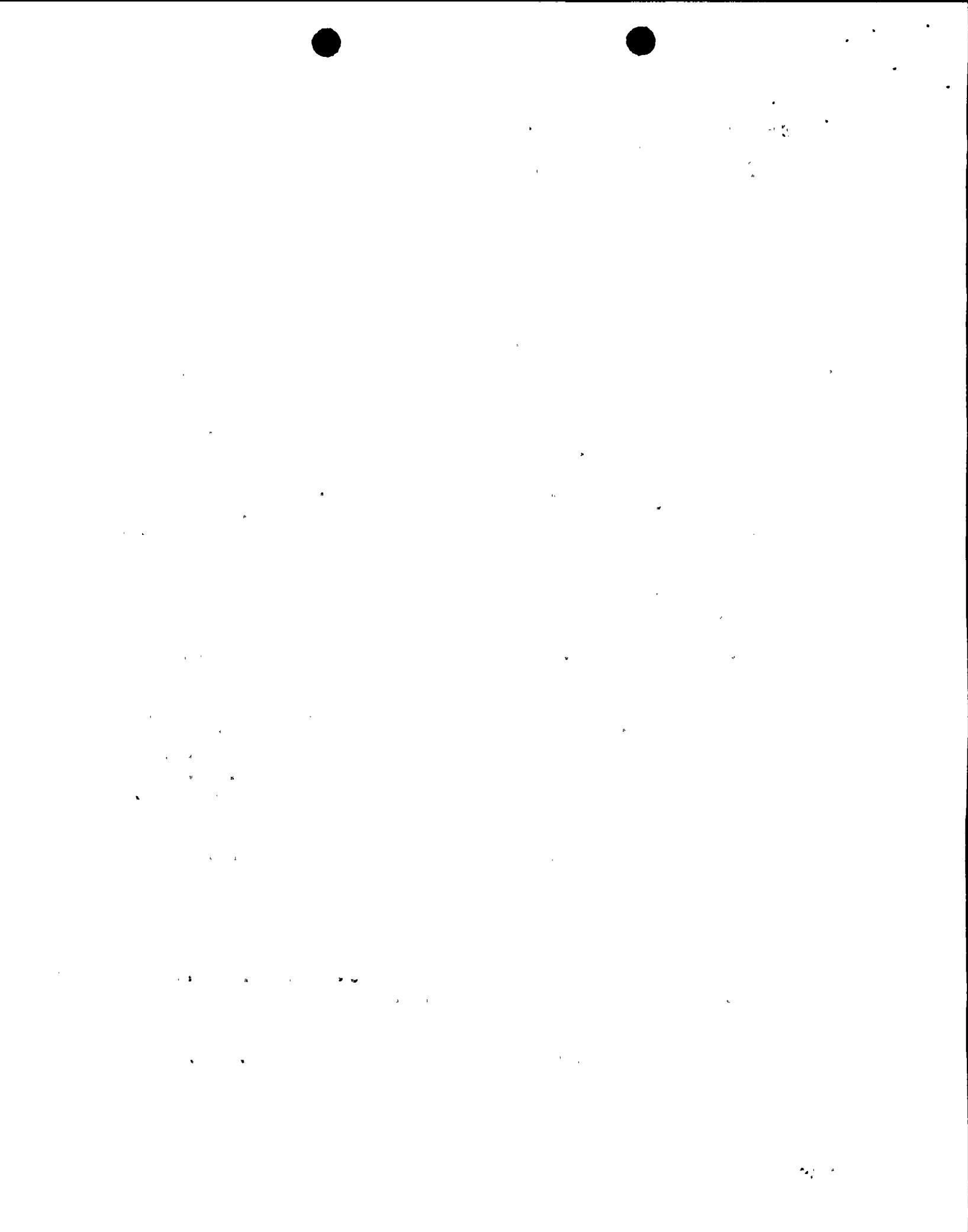
Functional capability, i.e., the ability of the EDG to start from normal operating temperature, can be adequately demonstrated by either manually or automatically starting the EDG from normal operating temperature. Sequencing the LOOP loads does not contribute to verifying that the EDG will start from normal operating temperatures. The LOOP sequencing logic is not affected during EDG operation; therefore, there is no reason to test the LOOP logic as part of the hot restart test. The LOOP test, TS 4.8.1.1.2b.5), will continue to be performed at standby conditions to provide assurance that the EDGs are capable of responding to a LOOP as assumed in the accident analysis. PG&E believes that the proposed changes comply with the intent of RG 1.108.

The proposed TS would require the EDG to be operated for at least 2 hours to establish EDG hot restart test conditions representative of extended full-load operating conditions. PG&E has evaluated EDG test data from monthly and 18-month tests performed for DCPP Units 1 and 2. The data show that engine operating temperatures consistently reach steady state within 45 minutes of operation at a load of greater than or equal to 2484 kW. Stator and generator bearing temperatures representative of continuous duty are achieved within the same time period. Therefore, a minimum 2-hour EDG run would provide additional assurance that conditions representative of extended full load operation have been established prior to the EDG hot restart.

Performing the 2-hour load run and EDG hot restart test during power operation would have no adverse effect on plant operations. An SI signal, while the EDG is operating in a test mode, connected to its bus, automatically opens the auxiliary transformer breaker and sequences the emergency loads onto the EDG.

The revised surveillance requirements will continue to verify EDG hot restart capability by either manually or automatically starting the EDG and verifying that it attains rated speed, voltage, and frequency within the required times.

In conclusion, PG&E believes that this evaluation provides reasonable assurance that the proposed TS change will not adversely affect the health and safety of the public.



E. NO SIGNIFICANT HAZARDS EVALUATION

PG&E has evaluated the no significant hazards considerations involved with the proposed amendment, focusing on the three standards set forth in 10 CFR 50.92(c) as quoted below:

The Commission may make final determination, pursuant to the procedures in §50.91, that a proposed amendment to an operating license for a facility licensed under §50.21(b) or §50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:

- (1) *Involve a significant increase in the probability or consequences of an accident previously evaluated; or*
- (2) *Create the possibility of a new or different kind of accident from any accident previously evaluated; or*
- (3) *Involve a significant reduction in a margin of safety.*

The following evaluation is provided for the three categories of the significant hazards consideration standards.

1. *Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?*

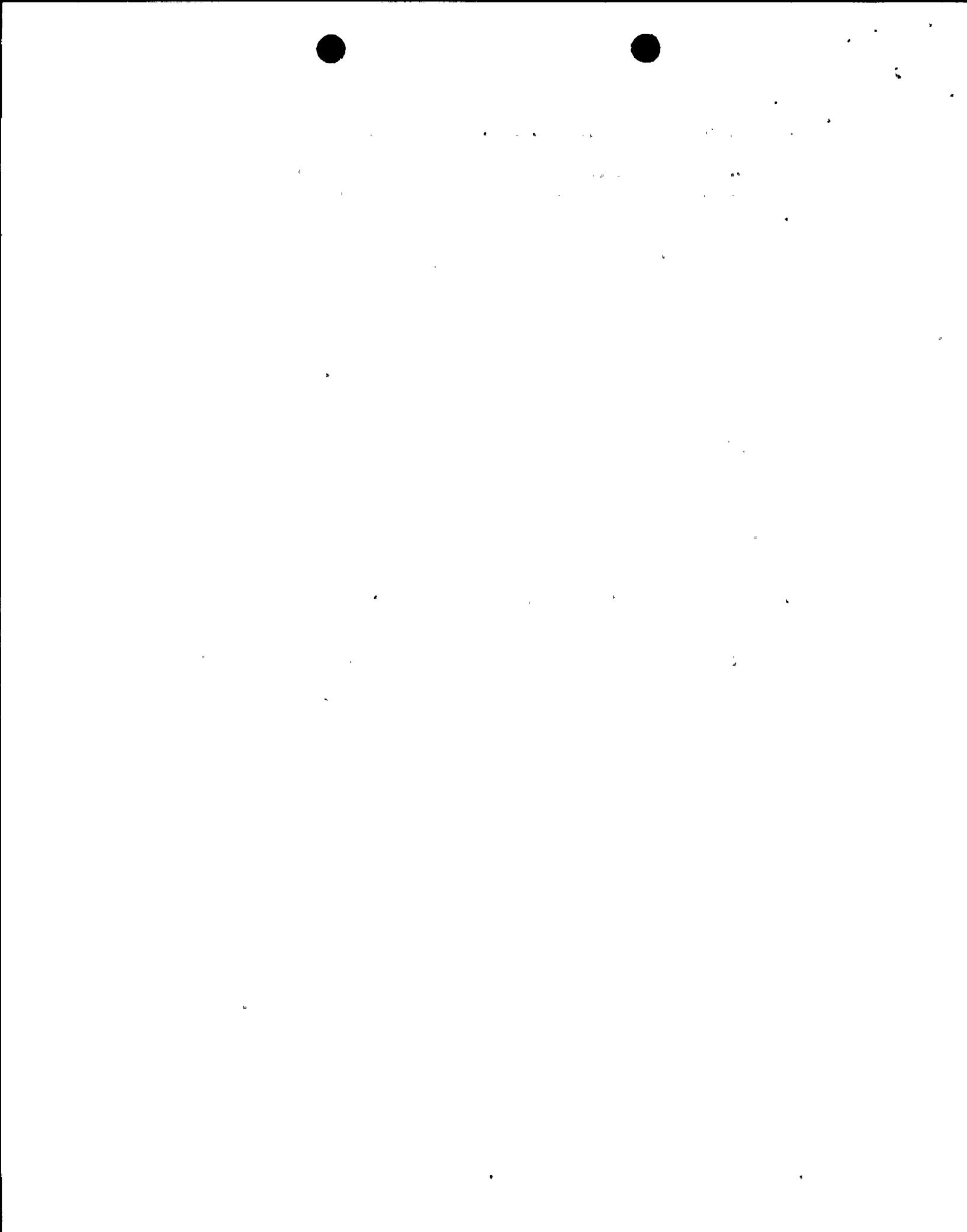
Demonstrating emergency diesel generator (EDG) hot restart capability without sequencing loss of offsite power (LOOP) loads does not invalidate or reduce the effectiveness of the hot restart test, since normal operating temperatures are achieved prior to the hot restart test. Sequencing the LOOP loads does not contribute to verifying that the EDG will start from normal operating temperatures. The proposed TS 4.8.1.1e. may be performed in any plant condition since performance of this new surveillance will have no adverse effect on plant operations. The reliability of the EDGs is not affected by the proposed changes.

Therefore, the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. *Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?*

The proposed changes do not involve any physical alterations to the plant. The proposed changes will not have any adverse effect on the ability of the EDGs to perform their required safety function.

Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.



3. *Does the change involve a significant reduction in a margin of safety?*

The proposed changes will not alter any accident analysis assumptions, initial conditions, or results. Consequently, the proposed changes do not have any effect on the margin of safety. The proposed changes to the surveillance requirements would continue to demonstrate the ability of the EDGs to perform their intended safety function.

Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

F. NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

In conclusion, based on the above evaluation, PG&E concludes that the activities associated with this proposed LAR satisfy the no significant hazards consideration standards of 10 CFR 50.92(c) and, accordingly, a no significant hazards consideration finding is justified.

G. ENVIRONMENTAL EVALUATION

PG&E has evaluated the proposed changes and determined the changes do not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed changes meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), an environmental assessment of the proposed changes is not required.

