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ATTACHMENT A

DIESEL GENERATOR
TECHNICAL SPECIFICATION CHANGES

A. DESCRIPTION OF AMENDMENT REQUEST

This License Amendment Request (LAR) proposes to reduce excessive diesel generator testing and to provide preventive maintenance times for the diesel generators, consistent with manufacturer's recommendations and previous maintenance and repair experience, by amending Technical Specification 3/4.8.1.1. These changes are consistent with Generic Letter 84-15.

Changes to the Technical Specifications of Operating License Nos. DPR-80 and DPR-82 are noted in the marked-up copy of the applicable Technical Specification (Attachment B).

B. BACKGROUND

On July 2, 1984, the NRC issued Generic Letter 84-15 entitled "Proposed Staff Actions to Improve and Maintain Diesel Generator Reliability." The generic letter requested licensees to review the reliability of their diesel generators based on surveillance test data, to review their programs concerning diesel generator surveillance testing, and to describe their plans for attaining and maintaining certain diesel generator reliability goals. By letter DCL-84-318 dated October 1, 1984, PGandE provided the requested information and indicated that cold, fast starting of diesel generators was not applicable to Diablo Canyon Units 1 and 2 because the diesel generators are equipped with lube oil and water jacket heating devices to maintain the oil and water temperatures at levels which permit immediate assumption of load. Also, the engine bearings are lubricated and ready for operation via motor-driven lube oil circulating pumps which run continuously until the unit is started.

On April 30, 1985, a meeting between the NRC, diesel generator vendors, and utilities was held to discuss recommendations for assurance of diesel generator reliability. Attendees at this meeting agreed that reduction of excessive diesel generator testing and conducting preventive maintenance in accordance with manufacturer's recommendations and previous utility maintenance experience would improve diesel generator reliability.

PGandE proposes amended DCPD Units 1 and 2 Technical Specifications to reduce excessive diesel generator testing and to provide diesel generator inoperability requirements for maintenance based on the manufacturer's recommendations and previous DCPD maintenance and repair experience. These proposed Technical Specifications are consistent with the recommendations of Generic Letter 84-15 and the recommendations of the April 30, 1985 meeting between the NRC, diesel generator vendors, and utilities on generator reliability improvements.



C. JUSTIFICATION

This section discusses each proposed change to the Units 1 and 2 Technical Specifications and the basis for the change.

Proposed 3.8.1.1. Action Statement a.

This action statement identifies the appropriate responses to be taken upon declaring one offsite circuit inoperable. The substantive technical changes included within this proposed action statement are as follows:

Specification 4.8.1.1.2a.2), demonstration of diesel operability, will be performed once within 24 hours of declaring the offsite circuit inoperable unless previously tested in the last 24 hours. The present requirement is to perform 4.8.1.1.2a.2) within one hour and at least once per 8 hours thereafter regardless of the time at which the last test was performed.

Basis:

The reason to perform diesel operability tests following the loss of one offsite circuit is to ensure that the onsite power source will be available and capable of starting as designed. The present action statement requires verification of diesel starting within one hour and then once every 8 hours thereafter. Demonstration of diesel starting capability within one hour of a loss of an offsite power source and subsequent testing every 8 hours thereafter is excessive.

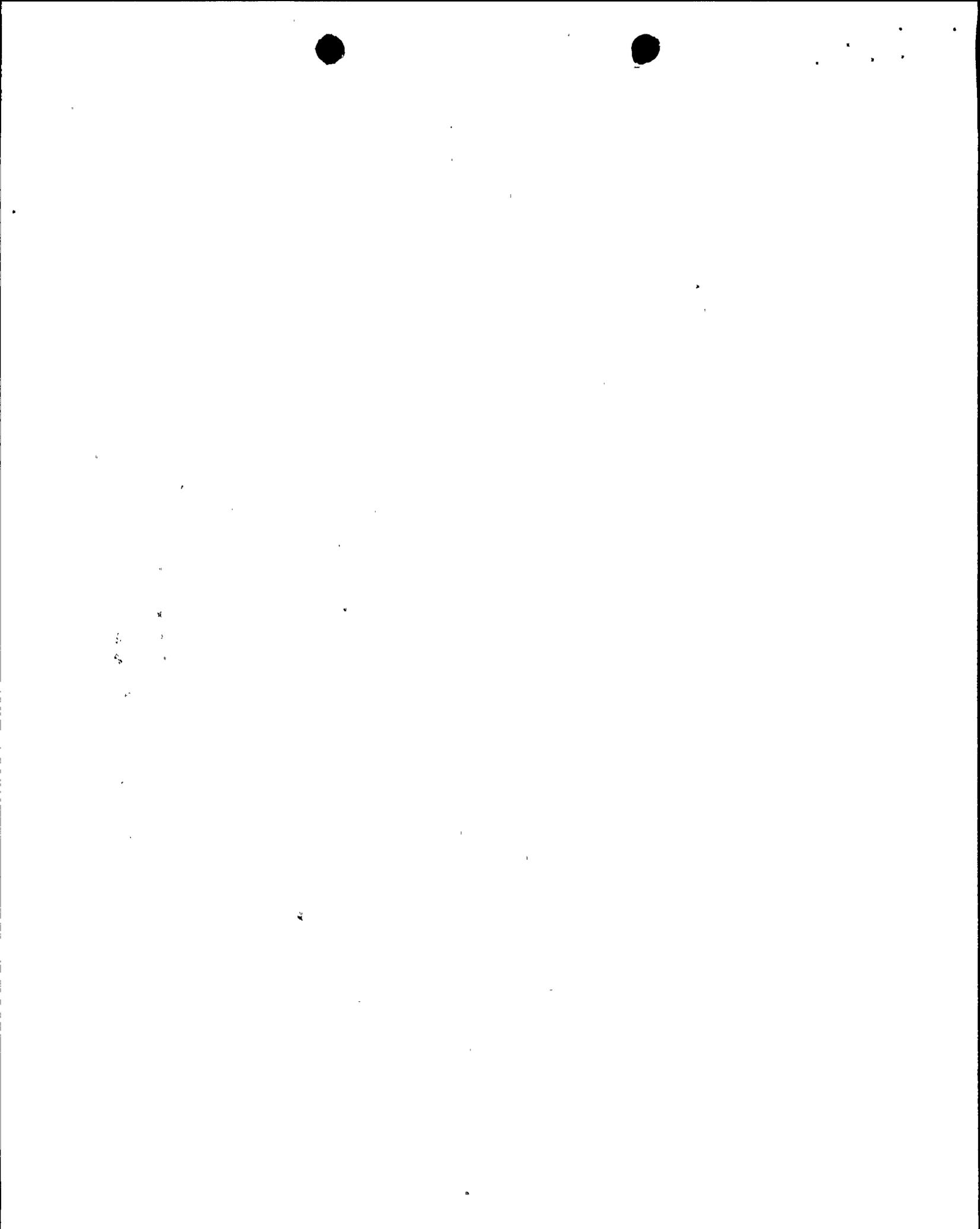
Diesel testing within the first 24 hours will provide adequate assurance of diesel operability. Furthermore, 24 hours permits sequential testing of the diesels rather than simultaneous testing of all three. The 24 hour requirement is consistent with Generic Letter 84-15.

If the diesel has been tested within the previous 24 hours, an additional operability test provides little further assurance of diesel operability than what had already been provided by the preceding surveillance test. Therefore, testing a diesel in this situation is excessive.

Finally, repetitive operability testing every 8 hours is both unnecessary and counterproductive in providing assurance of diesel operability. Within the existing requirements, nine operability tests may be required during the 72 hour action statement. Consistent with Generic Letter 84-15, one operability start per diesel provides sufficient assurance of operability in the event of a loss of an offsite power circuit.

Proposed 3.8.1.1. Action Statement b.

This action statement identifies the appropriate responses to be taken upon declaring one diesel generator inoperable. The substantive technical changes included within this proposed action statement are as follows:



Specification 4.8.1.1.2a.2), demonstration of the diesel's operability, will be performed once within 24 hours of declaring a diesel generator inoperable unless the diesel generator became inoperable due to preventive maintenance or testing. The present requirement is to perform 4.8.1.1.2a.2) within one hour and at least once per 8 hours thereafter.

Basis:

The reason to perform a diesel operability test following the loss of one diesel is to ensure that the remaining diesels will be operable and capable of starting as designed. Specifically, an operability test of the remaining diesels provides assurance that the remaining operable diesels are not subject to the same failure (i.e., common mode failure). Testing within 24 hours provides timely assurance of diesel operability.

As discussed in Item 3.8.1.1.a above, repetitive operability testing every 8 hours following the initial confirmation of diesel operability is unnecessary and counterproductive. These changes are consistent with Generic Letter 84-15.

Additionally, there is no reason to perform an operability test on the remaining diesels when a diesel is made inoperable due to preventive maintenance or testing, since the purpose for testing the remaining diesels is to assure a common mode failure does not exist.

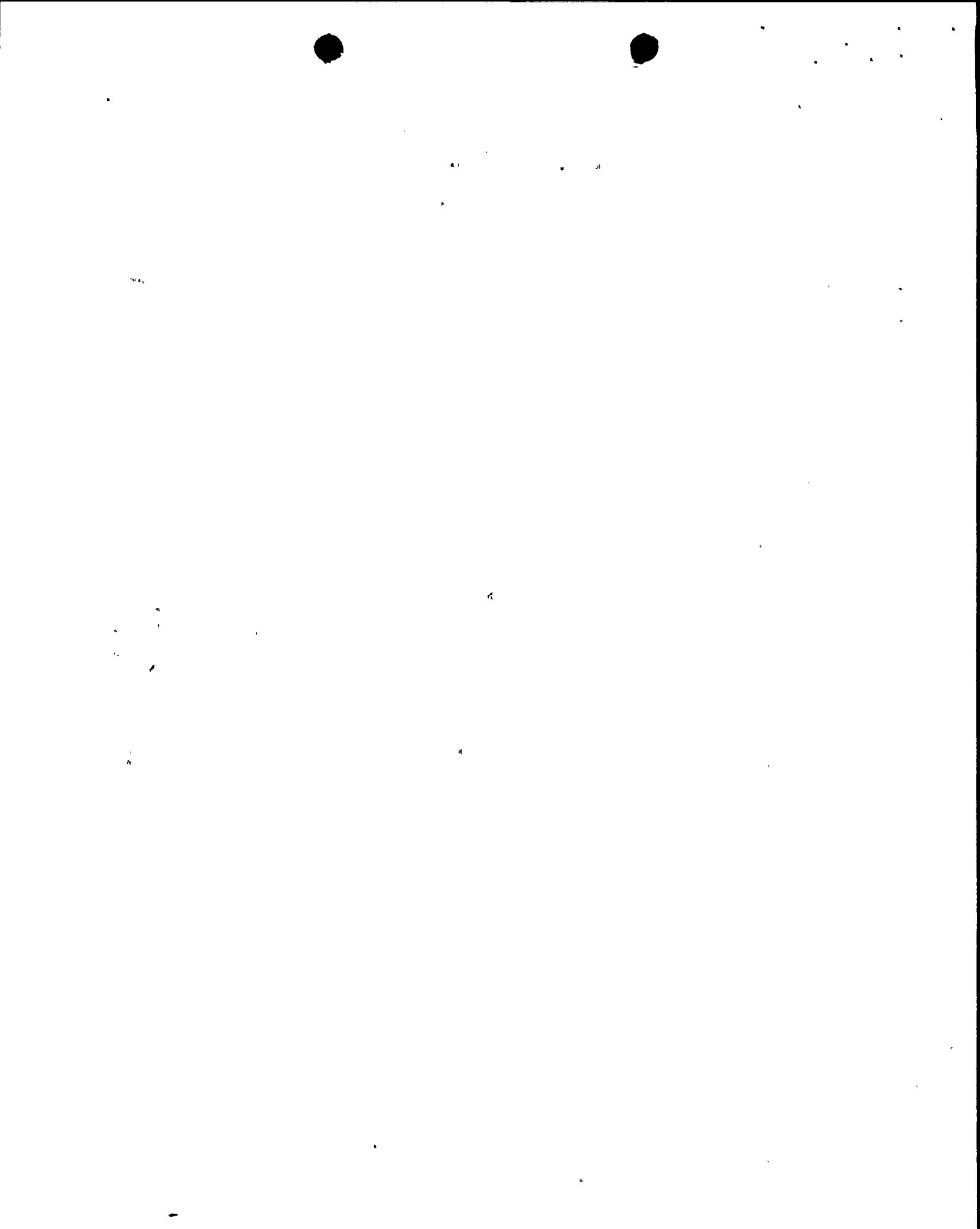
Proposed Footnote to 3.8.1.1. Action Statement b.

This footnote covers additional outage time for preventive maintenance. The footnote states that each of the Unit's diesel generators is allowed to be out of service for 10 days per year for preventive maintenance. The present technical specifications do not allow additional time (greater than 72 hours) for preventive maintenance.

Basis:

In order to accomplish the manufacturer's recommended maintenance interval schedule, 6 to 18 days are required, depending on the requirements for the specific inspection period. The 10 day preventive maintenance provision would allow performance of most of the manufacturer's recommended maintenance. The maintenance on diesel generators 1-1, 1-2, 2-1 and 2-2 that cannot be accomplished during the 10 day preventive maintenance period will be scheduled for performance during an outage when these diesels are not required to be operable.

Because diesel generator 1-3 is a swing diesel, it must be available when either Unit is in Modes 1-4. Therefore, in order to accomplish the manufacturer's recommended maintenance under the current Technical Specifications (i.e., 72 hours), it would be necessary to shut down both nuclear units. The 10 day preventive maintenance provision per nuclear unit would allow maintenance to be performed without shutting down both units.



Proposed 3.8.1.1 Action Statement c.

This action statement identifies the appropriate responses to be taken upon declaring one offsite circuit and one diesel generator inoperable. In the existing Technical Specifications this is Action Statement b. The proposed action statement has the following substantive changes:

The performance of Specification 4.8.1.1.2a.2), demonstration of diesel operability, will be performed once within 8 hours of declaring both sources inoperable, unless the diesel generator became inoperable due to preventive maintenance or testing. The present requirement is to perform 4.8.1.1.2a.2) within one hour and at least once per 8 hours thereafter.

Basis:

Consistent with the proposed changes to Action Statements a and b, the proposed changes to Action Statement c provide adequate assurance of diesel operability by one time testing while eliminating unnecessary testing. The performance of the test within 8 hours provides the requisite assurance while also providing added time for inspection prior to testing. These changes are also consistent with Generic Letter 84-15. Additionally, there is no reason to perform an operability test on the remaining diesels when a diesel is made inoperable due to preventive maintenance or testing.

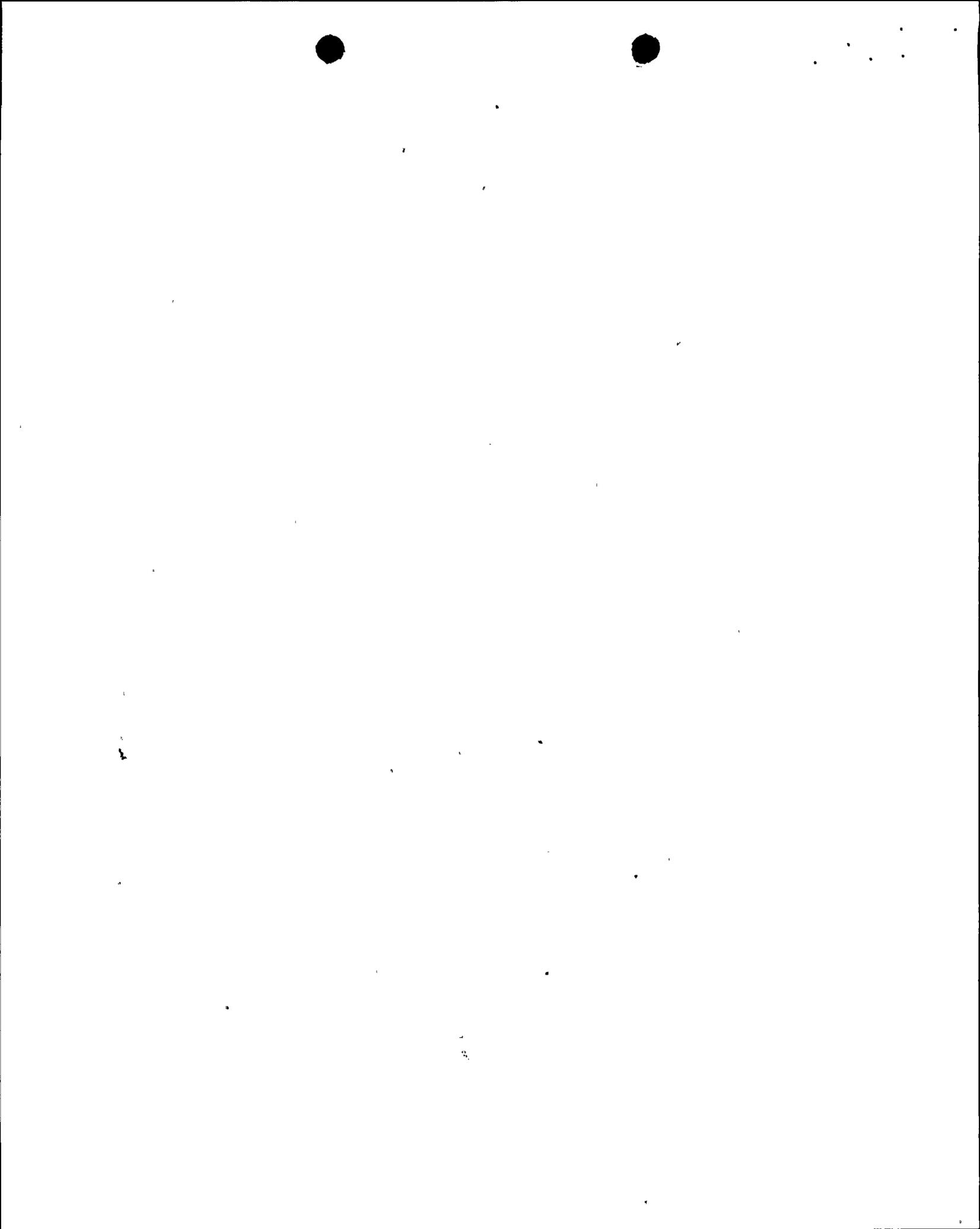
Proposed 3.8.1.1. Action Statement e.

This action statement covers the appropriate responses when two offsite power circuits are declared inoperable. This is Action Statement d in the existing Technical Specifications. The substantive changes being proposed are as follows:

Specification 4.8.1.1.2a.2), demonstration of diesel operability, will be performed once within 8 hours of declaring the offsite circuits inoperable. The present requirement is to perform Specification 4.8.1.1.2a.2) within one hour and at least once per 8 hours thereafter.

Basis:

The proposed change is consistent with those made for Action Statements a, b, and c above. As noted in the discussion for Action Statement a, loss of an offsite circuit does not suggest that the diesels have become less reliable than noted by previous surveillance tests. Given the significance of losing both offsite circuits, one operability test per diesel within 8 hours provides adequate assurance of diesel reliability. This change is also consistent with Generic Letter 84-15.



Proposed 3.8.1.1. Action Statement f.

This action statement covers the appropriate responses when declaring two or more diesel generators inoperable. In the existing Technical Specifications this is Action Statement e. There are no substantive changes proposed. The only change proposed is clarification of the required action when two diesel generators are operable.

Proposed 4.8.1.1.2b

This specification identifies the surveillance requirements to be performed at least once per 18 months, during shutdown. The following substantive change is being proposed.

The frequency of the surveillance requirements will be at least once per 18 months. The present frequency is at least once per 18 months, during shutdown.

Basis:

In order to utilize the proposed 10 day per year preventive maintenance outage time, the requirements of Specification 4.8.1.1.2b must be revised to allow the required maintenance and subsequent surveillance testing to be performed when the units are not shut down.

Proposed 4.8.1.1.4

This specification covers reports of diesel generator failures. The following substantive change is being proposed:

The special report will be supplemented with additional information if the number of failures (on a per diesel generator unit basis) in the last 20 valid tests is greater than or equal to 3. The present requirement is to supplement the special report if the number of failures (on a per diesel generator unit basis) in the last 100 valid tests is greater than or equal to 7.

Basis:

The reporting requirement has been changed to be consistent with the proposed testing frequency basis. This is consistent with Generic Letter 84-15.

Table 4.8-1

This table addresses diesel generator surveillance testing frequency. The following substantive changes are being proposed:

The present requirement bases the testing frequency on the number of valid failures experienced in the last 100 tests per nuclear unit. The



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testing frequency will be based on the number of valid failures in the last 20 valid tests on a per diesel generator basis. In addition, the proposed change provides for a restart in counting failures provided successful corrective actions have been taken.

Basis:

The present Technical Specifications for the diesel generators require accelerated surveillance testing based on past failures per Regulatory Guide 1.108, Revision 1. The test schedule is determined by the number of failures on a nuclear unit basis. The test frequency proceeds from 31 days for one failure to 3 days for four or more failures.

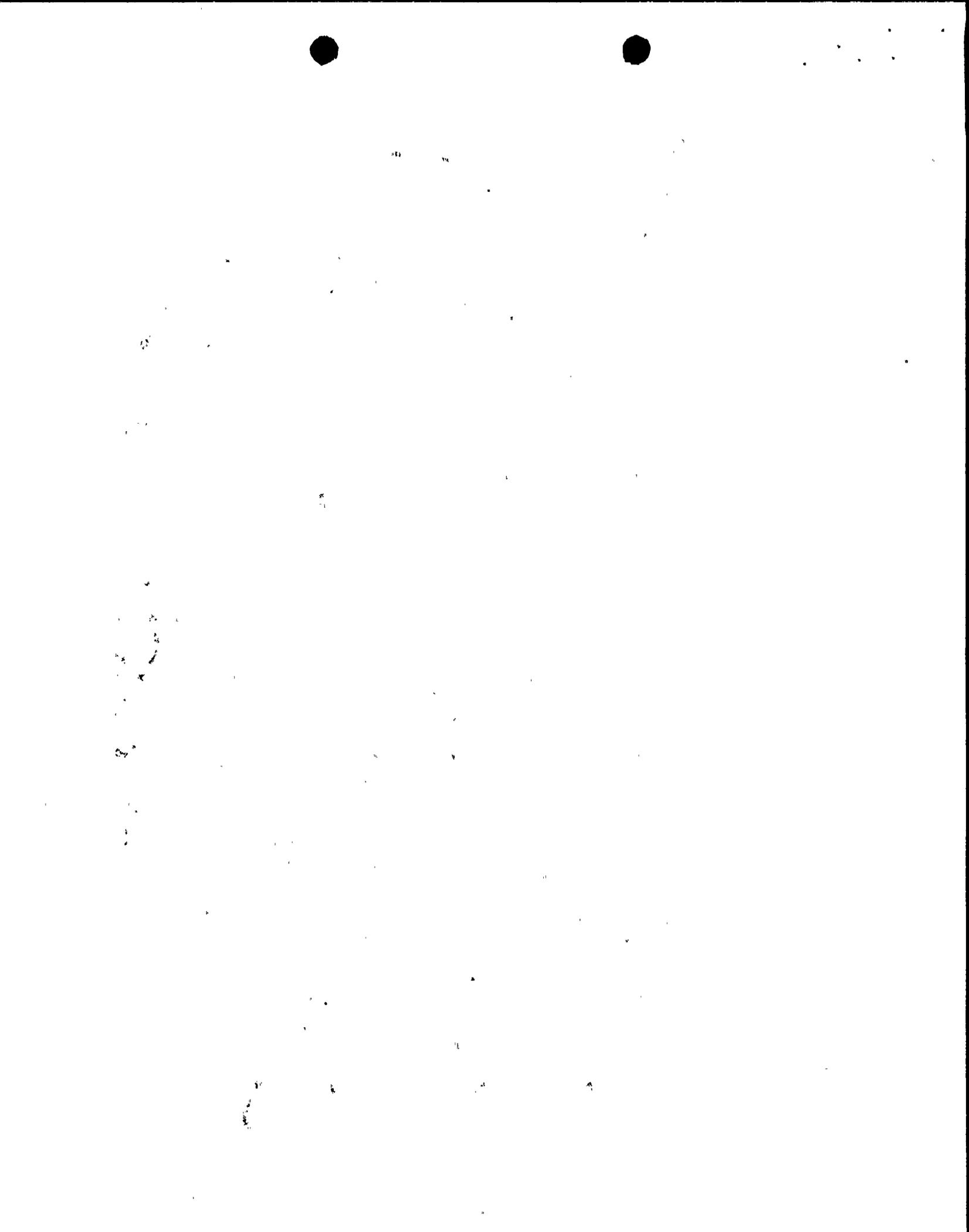
PGandE proposes a different test schedule adapting the general criteria of Regulatory Guide 1.108 and Generic Letter 84-15 with the exception that the number of failures can be set to zero following a complete diesel overhaul and successful post-maintenance operability testing. Post-maintenance testing will be established on a case specific basis dependent on the extensiveness of the overhaul (i.e. it is anticipated if replacement of major parts is needed then a more extensive test program including a break-in run of the diesel and power run to re-baseline trending parameters would be required). The concept of eliminating failures following a complete diesel overhaul is included to encourage corrective actions which enhance reliability rather than maintain a punitive testing schedule following corrective action, which in actuality is counterproductive to diesel reliability.

The proposed test schedule is based on a per diesel rather than per nuclear unit basis consistent with Generic Letter 84-15. Testing of a redundant diesel based on failures experienced on another diesel is excessive and not technically justifiable. Such testing adversely affects the continued performance and reliability of the other diesels. Changing the specification to a per diesel basis addresses individual diesel reliability and enhances overall reliability by requiring remedial actions only on diesel generators which are experiencing failures.

D. SAFETY EVALUATION

PGandE has evaluated the 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 a 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?

Reducing the diesel generator test frequency is intended to enhance diesel reliability by eliminating excessive testing which can lead to premature diesel failures. Performing thorough preventive maintenance and acceptance testing of the diesel generator in accordance with Alco Power, Inc. recommendations will provide additional assurance that the diesel will perform properly when required. The proposed changes should serve to enhance the diesel generator reliability and overall plant safety.

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

Reducing the diesel generator testing frequency and extending the allowed outage period for diesel generator preventive maintenance and acceptance testing does not necessitate physical alteration of the plant or changes in parameters governing normal plant operation. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated for Diablo Canyon.

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

The reduced testing frequency provides increased diesel generator availability because the diesel generator outage time during testing would be less. This reduced test frequency and increased outage time for preventive maintenance will result in increased diesel generator reliability. Therefore, this change does not involve a significant reduction in the margin of safety.

D. NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

In conclusion, based on the above safety evaluation, PGandE submits that the activities associated with this license amendment request satisfy the significant hazards consideration standards of 10 CFR 50.92(c) and, accordingly, a no significant hazards consideration finding is justified.

E. ENVIRONMENTAL EVALUATION

The proposed changes will not affect the environmental analyses in the FSAR Update, Environmental Report or Final Environmental Impact Statement. Therefore, there are no unreviewed environmental questions involved.

