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 FACIL: 50-275 Diablo Canyon Nuclear Power Plant, Unit 1, Pacific Gas 05000275
 50-323 Diablo Canyon Nuclear Power Plant, Unit 2, Pacific Gas 05000323
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 RECIP. NAME: THOMPSON, H. L. RECIPIENT AFFILIATION: Division of Licensing

SUBJECT: Forwards response to NRC 850515 ltr, specifically addressing items for combined Tech Specs, per License Amend Requests 85-01, 85-02, 85-03 & 85-04. Changes will be proposed for combined Tech Specs upon resolution of items.

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JAMES D. SHIFFER
VICE PRESIDENT
NUCLEAR POWER GENERATION

May 21, 1985

PGandE Letter No.: DCL-85-188

Mr. Hugh L. Thompson, Jr., Director
Division of Licensing
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: Docket No. 50-275, OL-DPR-80
Docket No. 50-323, OL-DPR-81
Diablo Canyon Units 1 and 2
Combined Technical Specifications

Dear Mr. Thompson:

Your letter of May 15, 1985, described the procedures for combining the Units 1 and 2 Technical Specifications and identified areas for additional consideration to ensure consistency between the Technical Specifications.

The proposed combined Units 1 and 2 Technical Specifications were submitted to the NRC in License Amendment Requests (LAR) 85-01, Revision 4, and 85-02. LAR 85-01, Revision 4, included the marked up Unit 1 Technical Specifications and LAR 85-02 included the marked up Unit 2 Technical Specifications. LARs 85-03, "Movable Control Assemblies," and 85-04, "Reactor Trip System Instrumentation," were also submitted for inclusion in the combined Units 1 and 2 Technical Specifications.

Enclosure 1 to the May 15, 1985, NRC letter identifies those items which should be specifically addressed for the combined Technical Specifications. PGandE's response to each item is given in the enclosure to this letter. Processing of LARs 85-01, Revision 4; 85-02; 85-03; and 85-04 should not be contingent on resolution of the items identified in the May 15, 1985, NRC letter. Accordingly, PGandE requests that these four LARs be processed expeditiously. Upon resolution of the items identified in the May 15, 1985, NRC letter with the NRC Staff, changes will be proposed for the combined

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Units 1 and 2 Technical Specifications and PGandE will submit the required LARs as applicable.

Kindly acknowledge receipt of this material on the enclosed copy of this letter and return it in the enclosed addressed envelope.

Sincerely,


for J. D. Shiffer

Enclosure

cc: R. T. Dodds
G. W. Knighton
J. B. Martin
H. E. Schierling
Service List

ENCLOSURE

DIABLO CANYON UNITS 1 AND 2 COMBINED TECHNICAL SPECIFICATIONS

NRC letter, dated May 15, 1985, identified seventeen Technical Specification items that should be addressed for the combined Units 1 and 2 Technical Specifications. These items are identified below, each followed by PGandE's response.

1. Technical Specification Section 2.1NRC Staff Comments

During the review of the Unit 2 Technical Specifications it was suggested that the term "reactor coolant system" be used throughout the TS rather than being intermingled with "primary system."

If you agree, you may wish to implement this suggestion in your combined Technical Specifications.

PGandE Response

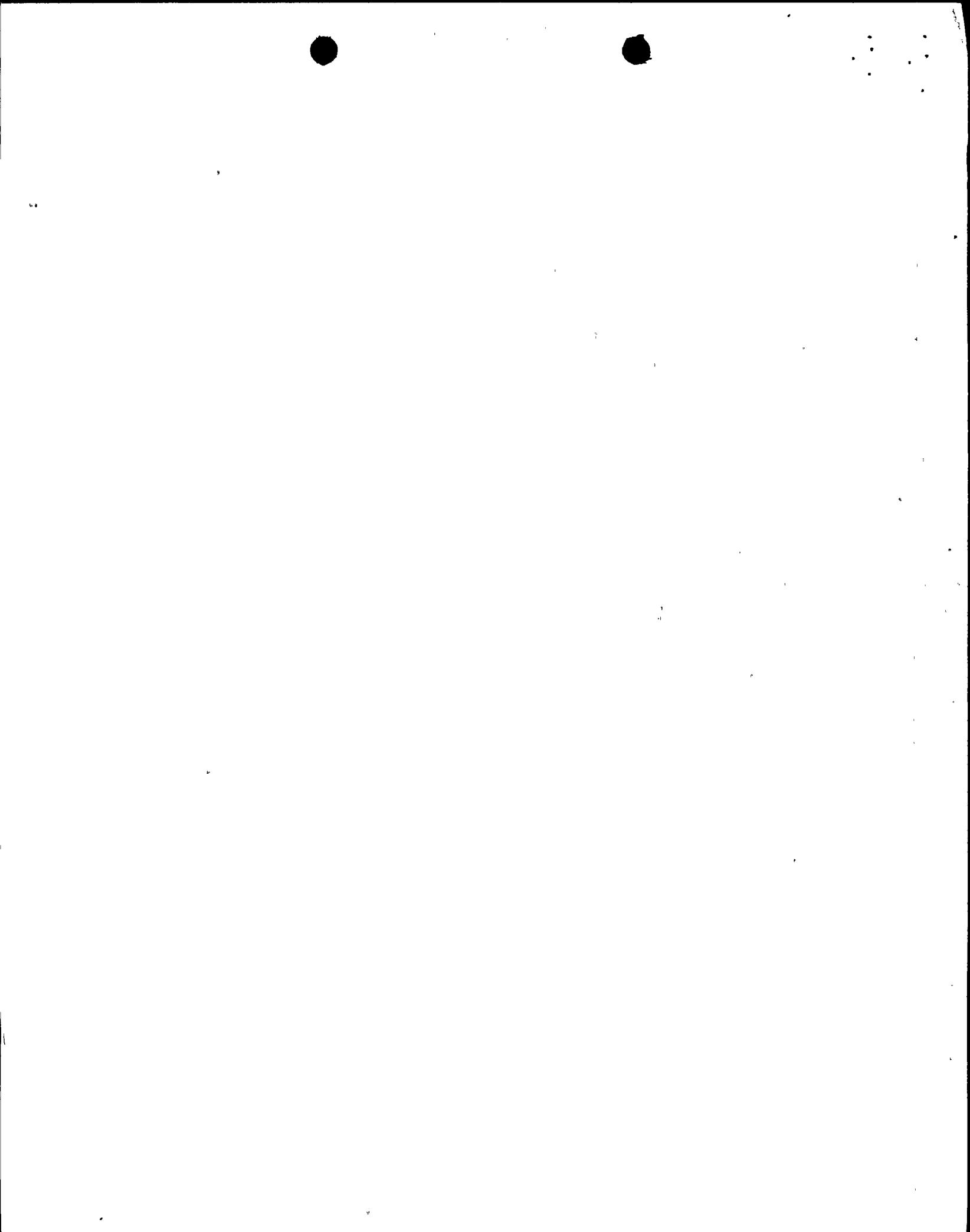
As agreed with the NRC Staff in a May 15, 1985, meeting regarding Technical Specifications, the combined Units 1 and 2 Technical Specifications are satisfactory as presently written.

2. Technical Specification Section 3.3.1NRC Staff Comments

The source-range neutron flux instrumentation provides the operator with direct annunciation for the onset of a boron dilution event. The staff agreed that one operable channel is sufficient in Modes 3, 4 and 5, rather than two as recommended by the STS, based on the operator's response to the channel's failure described in the PGandE letter dated April 22, 1985, and to be consistent with the Unit 1 requirement.

Response time testing for this instrumentation was revised for Unit 2 to be consistent with the STS.

The operability and surveillance requirements for the source-range neutron flux instrumentation should be consistent for both units and appropriately reflect the assumptions in the boron dilution event analysis.



PGandE Response

A response time testing requirement for the Unit 1 source-range neutron flux instrumentation was requested in LAR 85-01, Revision 4, dated May 14, 1985, for consistency with Unit 2. The operability and surveillance requirements for the source-range neutron flux instrumentation as requested in the LAR will be consistent for both units and appropriately reflect the assumptions in the boron dilution event analysis in the Diablo Canyon FSAR.

3. Technical Specification Section 3.3.2

NRC Staff Comments

The ESF actuation instrumentation for safety injection (containment high pressure) and steam line isolation (manual) is required to be operable in Modes 1, 2 and 3. For Unit 2, this instrumentation is also required to be operable in Mode 4, because there is not an explicit analysis which demonstrates that the consequences of the associated accidents are less severe in Mode 4 if this instrumentation fails to function.

The operability requirements for all ESF actuation instrumentation should be consistent for both units and should ensure that the instrumentation is operable when it is required to mitigate the consequences of an accident.

PGandE Response

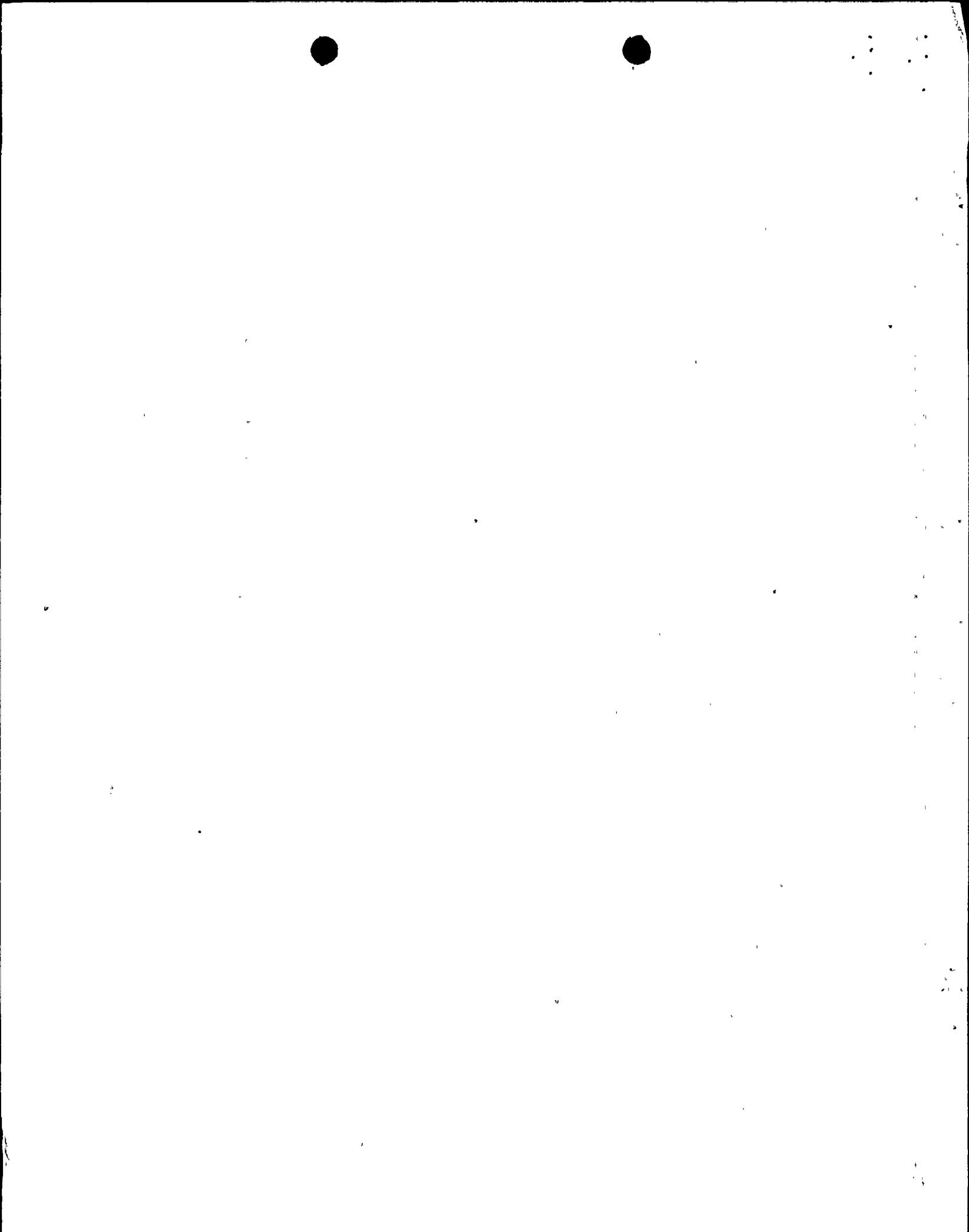
Mode 4 operability requirements for the above instrumentation were requested in LAR 85-01, Revision 4, dated May 14, 1985, for consistency with Unit 2. The operability requirements for all ESF actuation instrumentation as requested in the LAR will be consistent for both units and ensure that the instrumentation is operable when required to mitigate the consequences of an accident.

4. Technical Specification Section 3.3.3.3

NRC Staff Comments

The seismic monitoring instrumentation shown in Table 3.3-7 shall be operable.

Table 4.3-4 of the Diablo Canyon Technical Specifications shows N.A. on the Channel Calibration column for 2. Triaxial Peak Accelerographs, and for 3. Triaxial Response-Spectrum Recorders. The staff believes that the channel calibration should be conducted at each refueling outage (R). This change would be a valuable means for demonstrating compliance with the OPERABILITY requirements of 3.3.3.3.



PGandE Response

At DCP, both the Triaxial Peak Accelerographs and the Triaxial Response-Spectrum Recorder consist of an Engdahl Enterprises plate and stylus type instrument. These are passive instruments and no periodic channel checks or functional tests are required. The manufacturer's recommended calibration test procedure (number 120900, Rev. 5) is included in the DCP Plant Manual as part of procedure STP I-37B and consists of a statistical sampling of the channels on a staggered test basis at an 18-month frequency.

While this sampling and calibration is being performed in accordance with manufacturer's instructions, the "calibration" involved does not conform with the Standard Technical Specifications defined term "CHANNEL CALIBRATION."* This inconsistency was pointed out during discussions with the NRC Staff during development of the Unit 1 Technical Specifications and it was agreed that an "NA" entry in the Channel Calibration column of Table 4.3-4 for these instruments was appropriate.

PGandE feels that current DCP Technical Specification 3.3.3.3 for Units 1 and 2 is adequate and accurately reflects the installed seismic instrumentation and the program provided to monitor its operability.

*The manufacturer's "calibration" instructions for the response spectrum recorder consists of three "calibrations" and one adjustment as follows:

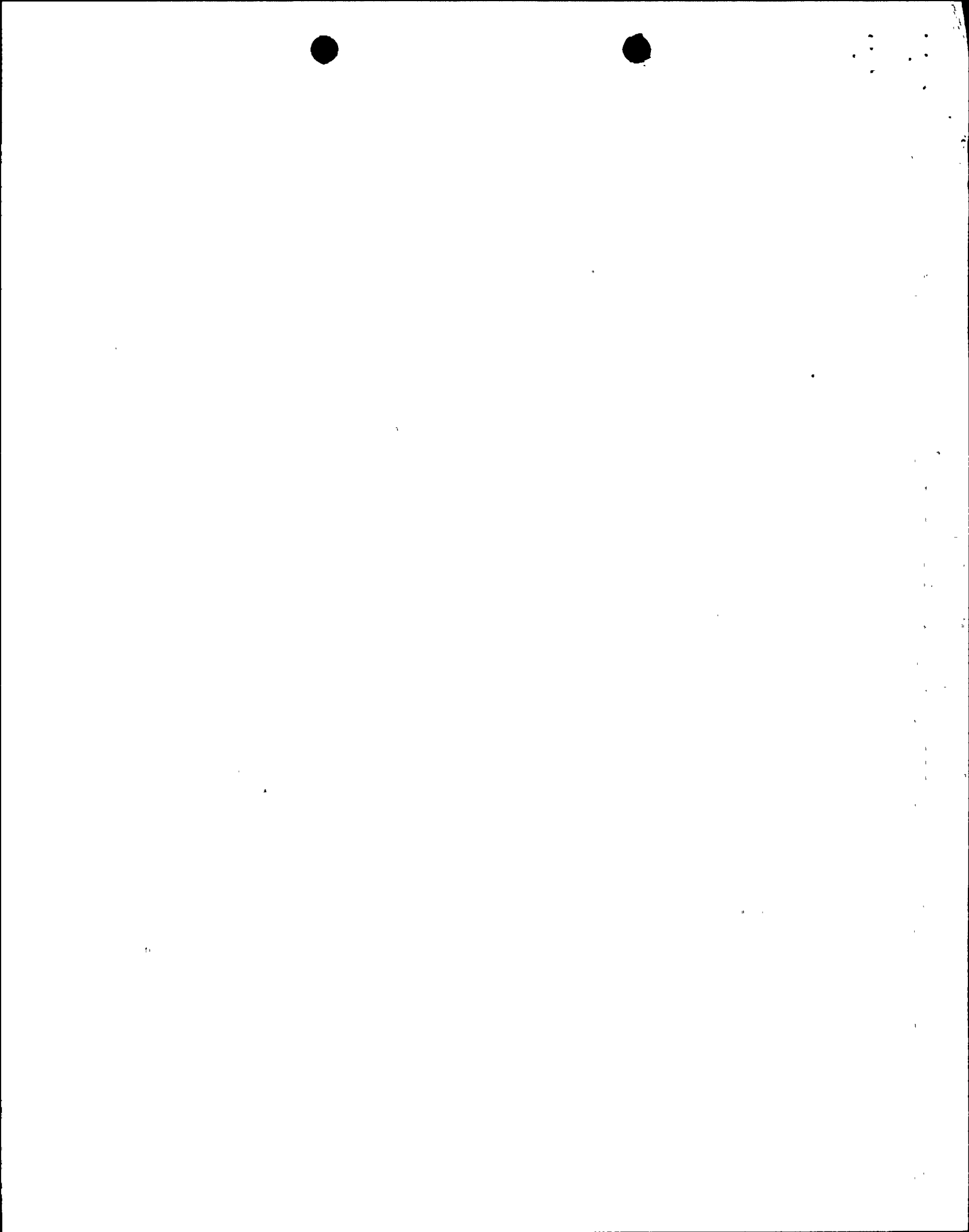
1. Frequency calibration
2. Scriber preload adjustment
3. Damping calibration
4. Sensitivity calibration

It should be noted that the only adjustment that is to be made is scriber preload. The three "calibrations" are the measurement and recording of new data and comparison with old data and nominal specifications to determine any large discrepancies. If the new data is accurate and within acceptable limits, the new data will be used for reducing data in the event of an earthquake or other disturbance."

5. Technical Specification Section 3.3.3.6

NRC Staff Comments

In SSER 10 (II.D.5), the staff concluded that a single positive indication of PORV and safety valve position is acceptable, based on the availability of backup methods to determine valve position. Consequently, the staff agreed that T3.3-10 (item 13) need only require one operable instrumentation channel for PORV indication consistent with the requirement for Unit 1.



The operability requirements for PORV and safety valve position for both units should ensure that backup instrumentation is available whenever the primary instrumentation is inoperable.

PGandE Response

The Operability Requirements for the PORV and safety valve position indication are contained in Technical Specification 3/4.3.3.6, "Accident Monitoring Instrumentation," and do not address the availability of backup instrumentation for the PORV's, in case the primary instrumentation is inoperable.

Acceptable backup instrumentation, as described in SSER 10 (II.D.5), is available to provide PORV and safety valve position indication.

PGandE does not believe that inclusion of the backup instrumentation in Technical Specification 3/4.3.3.6 is necessary or appropriate.

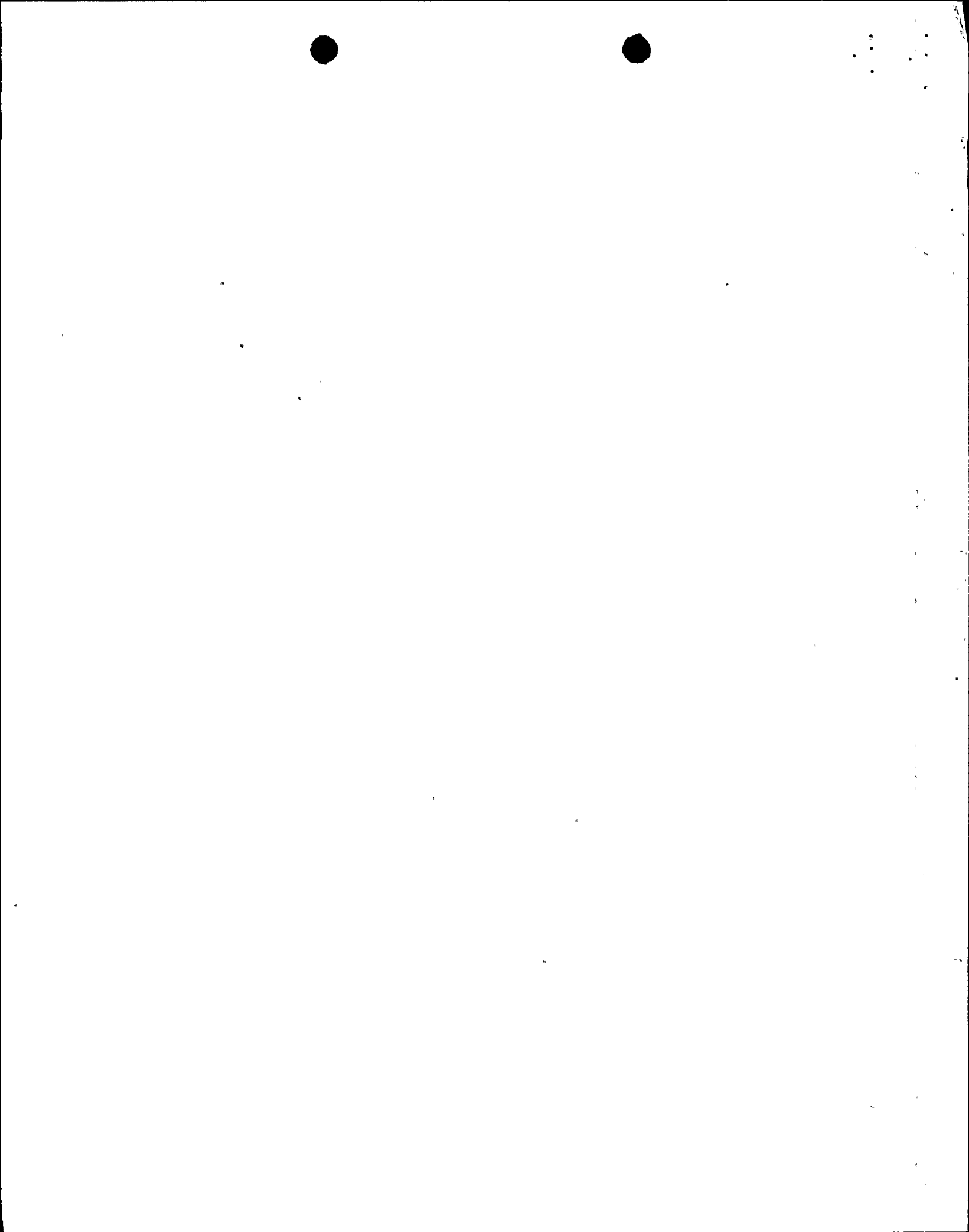
6. Technical Specification Sections 3.3.3.11 and 4.3.3.11

NRC Staff Comments

The staff's Safety Evaluation dated October 16, 1974, stated that the applicant's commitment to install a loose parts monitoring system prior to plant operation was acceptable to the staff. The staff believes that the addition of a technical specification like Technical Specification 3/4.3.3.9 of the STS is important in ensuring proper functioning of the Loose Parts Detection System.

PGandE Response

PGandE has installed and will maintain in operation a loose parts and vibration monitoring system (LPMS) for early detection of possible loose parts in the reactor coolant system (RCS) and to reduce the probability of them causing damage to RCS components. PGandE does not intend to operate for extended periods of time without the LPMS in operation. The LPMS will be maintained and operated in accordance with plant procedures. Therefore, PGandE does not believe that the addition of a technical specification similar to Technical Specification 3/4.3.3.9 of the STS is appropriate.



7. Technical Specification Section 3.4.1.3

NRC Staff Comments

The staff agreed that the operability requirements for the reactor coolant loops for Unit 1 are acceptable for Unit 2, although they do not specifically preclude control rod withdrawal in Mode 4. This conclusion was based on the procedural and testing provisions described in the PGandE letter dated April 11, 1985.

The procedural and testing provisions described in the April 11, 1985 letter provided for energizing the control rods only for certain tests during which either two coolant pumps will be operating, for which rod withdrawal accidents have been analyzed, or the reactor system will be borated sufficiently so that inadvertent criticality cannot occur from rod withdrawal.

PGandE Response

As discussed in PGandE letter DCL-85-147, April 11, 1985, both the Unit 1 Technical Specifications and the proposed Units 1 and 2 combined Technical Specifications are consistent in this area with the guidance provided in NUREG-0452, Rev. 4 (and Draft Rev. 5), "Standard Technical Specifications for Westinghouse Pressurized Water Reactors," which is described in the Standard Review Plan, Chapter 16.

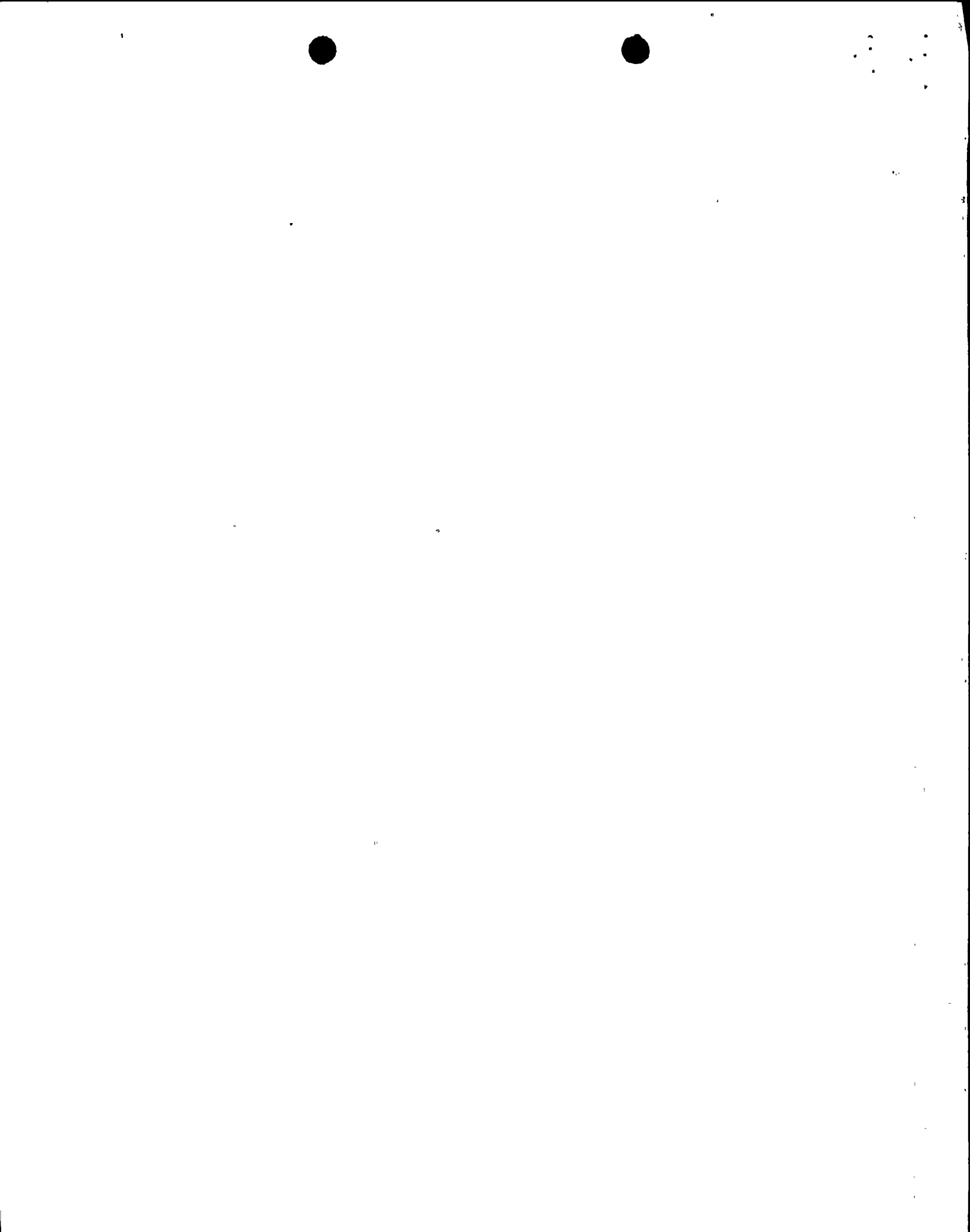
In letter DCL-85-147, regarding DCP Unit 2, PGandE committed to borate the reactor coolant to 2000 ppm or greater during the periods when the control rod drives are energized for testing without two RCPs operating. This commitment also applies to DCP Unit 1.

8. Technical Specification Section 3.4.4

NRC Staff Comments

The staff agreed that the actions required for inoperable PORVs for Unit 1 is acceptable for Unit 2 for an interim period until the technical specifications can be revised for both units. The actions do not specifically require the operability of an alternate depressurization method when the PORVs are inoperable and they require power removal from the block valves whenever the PORVs are inoperable.

The staff requires that the technical specifications for both units be revised to ensure operability of the PORV in all modes, consistent with the safety analyses.



PGandE Response

PGandE's position regarding operability of the PORV was submitted in letter DCL-85-154, dated April 19, 1985. Diablo Canyon does not rely on the PORVs to be operable and available to meet the 10 CFR 100 guideline values other than for low temperature overpressurization (covered by Technical Specification 3.4.9.3).

However, PGandE is aware of the Westinghouse Owners Group (WOG) effort to demonstrate the margin to steam generator overfill relative to the tube rupture issue and its relation to PORV operability. PGandE intends to follow this effort to conclusion and will take appropriate action as needed based on the results of the WOG program.

9. Technical Specification Section 3.7.1.1.b

NRC Staff Comments

The operability requirements for the main-steam safety valves are generally based on bench testing surveillance. The staff believes that the in situ testing provided for Unit 1 is preferable and, therefore, is acceptable for Unit 2. However, it is not apparent whether alternate conditions are necessary to ensure relief capacity in Mode 3.

PGandE Response

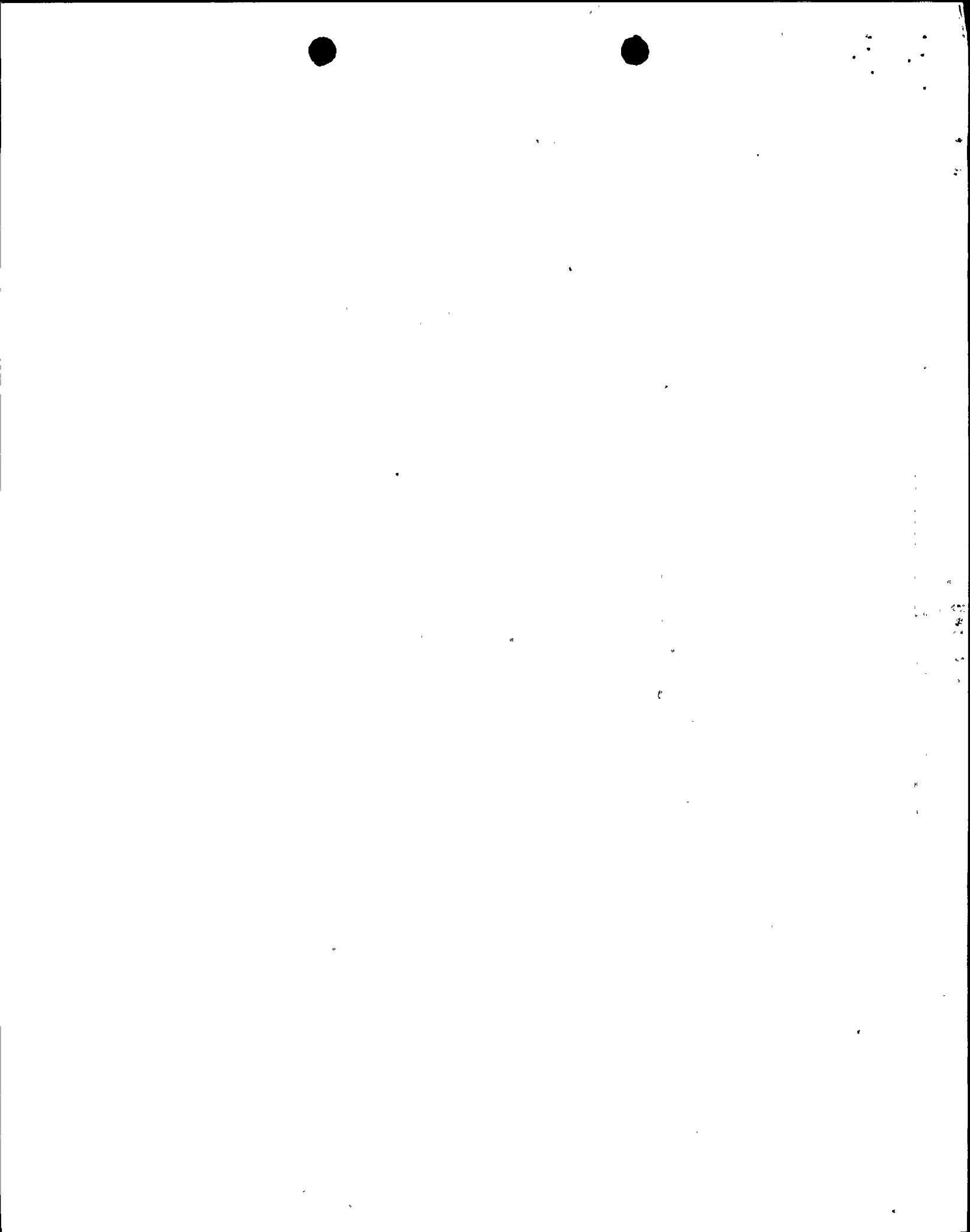
One steam generator safety valve has relief capacity to accommodate up to 6% of the NSSS thermal power output (a steam flow rate of approximately 8.7×10^5 lbm/hr). While in Mode 3 of operation, the reactor is subcritical and the primary thermal power is due solely to decay heat and reactor coolant pump heat. Based on the 1971 ANS decay heat curve with error allowances, the decay heat thermal power 3 hours following a reactor trip from full power is less than 1.2% of the full thermal power. The thermal power of the reactor coolant pumps is less than .35% of the full thermal power. Therefore, the maximum thermal power (at least 3 hours after shutdown) while in Mode 3 of operation is less than 1.6% of the full thermal power (a steam flow rate of about 2.3×10^5 lbm/hr).

This demonstrates that operating in Mode 3 with a maximum of 19 safety valves inoperable to permit in situ testing is acceptable because one safety valve has sufficient relief capacity to accommodate the thermal power due to the decay heat and reactor coolant pump heat.

10. Technical Specification Section 3.8.1.1

NRC Staff Comments

The staff included appropriate provisions in the Unit 2 TS to avoid contradictory operability requirements on excessive surveillance



requirements for the "swing" diesel generator (1-3), as compared to the amended operability and surveillance requirements for Unit 1. In the combined TS, explicit and consistent operability and surveillance requirements should be included for the swing diesel.

PGandE Response

Operability and surveillance requirements for diesel generator 1-3 are included in both LAR 85-01, Revision 4, and LAR 85-02, dated May 14, 1985, for the combined Units 1 and 2 Technical Specification.

11. Technical Specification Section 3.8.2.1

NRC Staff Comments

The staff included operability requirements for the battery sets and associated chargers which do not distinguish specific chargers and specific battery sets. The combined TS should clearly identify the charger/battery combinations which will compromise the redundancy of the dc system in the event of a single failure.

PGandE Response

The safety-related batteries and charger for Diablo Canyon are arranged so each of the 3 battery and charger sets is normally supplied from a separate safety-related 480V ac bus. The system also includes two standby chargers with the capability of being manually switched in a variety of configurations so charging of each battery can be maintained should any of the normal chargers fail. This arrangement facilitates maintenance of the normal chargers and allows for exercising the standby chargers.

Under normal operating conditions, all chargers will be aligned so each of the three vital 480V ac buses will supply power to one of the three batteries and dc buses. Efforts will be made to restore the alignment in a reasonable time should a charger have failed and two batteries or dc systems are being supplied from one 480V vital bus.

When charging power to any battery fails, it is annunciated in the main control room and plant shutdown must begin within 2 hours unless a standby charger is switched over to supply the battery. Physical isolation of the 480V ac sources for the chargers and the 125V buses and redundant circuit breakers in the power sources ensures adequate separation of each charger. "Divisional separation" should not apply because of the redundancy and diversity of this system. The design meets all applicable general design criteria of 10 CFR 50, Appendix A. Since the dc system can operate indefinitely as long as charging is available for all 3 batteries, the technical specifications should not restrict such operation.



Accordingly, PGandE will continue discussions with the Staff regarding Units 1 and 2 Technical Specifications 3.8.2.1 and 3.8.2.2 and a license amendment request for Units 1 and 2 will be submitted as appropriate.

12. Technical Specification Section 4.7.7.1

NRC Staff Comments

"Each snubber shall be demonstrated OPERABLE by performance of the following augmented inservice inspection program in lieu of the requirements of Specification 4.0.5."

The staff recommends "in lieu of" be replaced with "and."

PGandE Response

PGandE will submit a license amendment request for Units 1 and 2 to change Technical Specification 4.7.7.1 wording "in lieu of" to "and".

13. Technical Specification Section 6.5.1.5

NRC Staff Comments

The staff agreed that the provisions for a quorum of the PSRC (chairman and two members) for Unit 1 is acceptable for Unit 2. However, the staff recommends that further consideration be given to whether this quorum can ensure continuity of the PSRC.

PGandE Response

PGandE has reviewed the NRC Staff's concerns regarding whether the DCPD PSRC quorum can ensure continuity of the PSRC. The DCPD PSRC was established in 1975. Experience to date has indicated that the present quorum provides adequate continuity of the PSRC. The Plant Superintendent; the Assistant Plant Manager, Technical Services; the Assistant Plant Manager, Support Services; the Operations Manager; and the Quality Control Manager normally attend all PSRC meetings if they are available. In addition, a permanently assigned PSRC clerk attends and records the minutes of all PSRC meetings. It should be noted that PSRC meeting attendance normally exceeds minimum requirements.

Based on the above, PGandE concludes that the existing PSRC quorum is adequate and no changes are necessary to the DCPD Technical Specification 6.5.1.5.



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14. Technical Specification Section 6.8.1

NRC Staff Comments

The references for the emergency operating procedures need not include Supplement 1 to NUREG-0737 and Generic Letter 82-33.

PGandE Response

PGandE will submit a license amendment request for Units 1 and 2 to change Technical Specification 6.8.1 deleting the reference to Supplement 1 to NUREG-0737 and Generic Letter 82-33.

15. Technical Specification Section 6.9.1.2

NRC Staff Comments

The provisions for startup reports should refer to Table 14.2-5 in the FSAR.

PGandE Response

PGandE will submit a license amendment request for Units 1 and 2 to change Technical Specification 6.9.1.2 to indicate that the Startup Report shall address each of the tests in Chapter 14 of the FSAR. Reference to a specific table number could result in excessive license amendment requests since the Technical Specifications would have to be amended whenever the Table number is changed in FSAR updates.

16. Technical Specification Section 6.13

NRC Staff Comments

The staff has concluded that Revision 1 to the Process Control Program, dated May 8, 1984, generally complies with NRC criteria and is, therefore, acceptable. However, revised guidelines are being developed which will likely require a future revision to the Process Control Program. The future revision should address compliance with 10 CFR 61 in more detail.

PGandE Response

Upon issuance of the above revised guidelines, PGandE will review the guidelines, establish and make any appropriate changes to the Process Control Program and/or procedures which are necessary to ensure compliance with 10 CFR 61.

11

17. Technical Specification Section 6.14

NRC Staff Comments

PGandE has stated that the Offsite Dose Calculational Procedure (ODCP) and Environmental Radiation Monitoring Program (ERMP) are being revised concurrent with the RETS upgrade for Unit 2. The staff expects that the revised ODCP and ERMP will be submitted within about two to three months, following approval by the PSRC.

PGandE Response

The Offsite Dose Calculational Procedure (ODCP) and Environmental Radiation Monitoring Program (ERMP) are currently in the process of being revised. The revised ODCP and ERMP will be submitted to the NRC by August 15, 1985.

