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SUBJECT: Forwards response to NRC request for addl clarification of  
 util 810206 submittal re Item II.F.2 of NUREG-0737  
 concerning inadequate core cooling.

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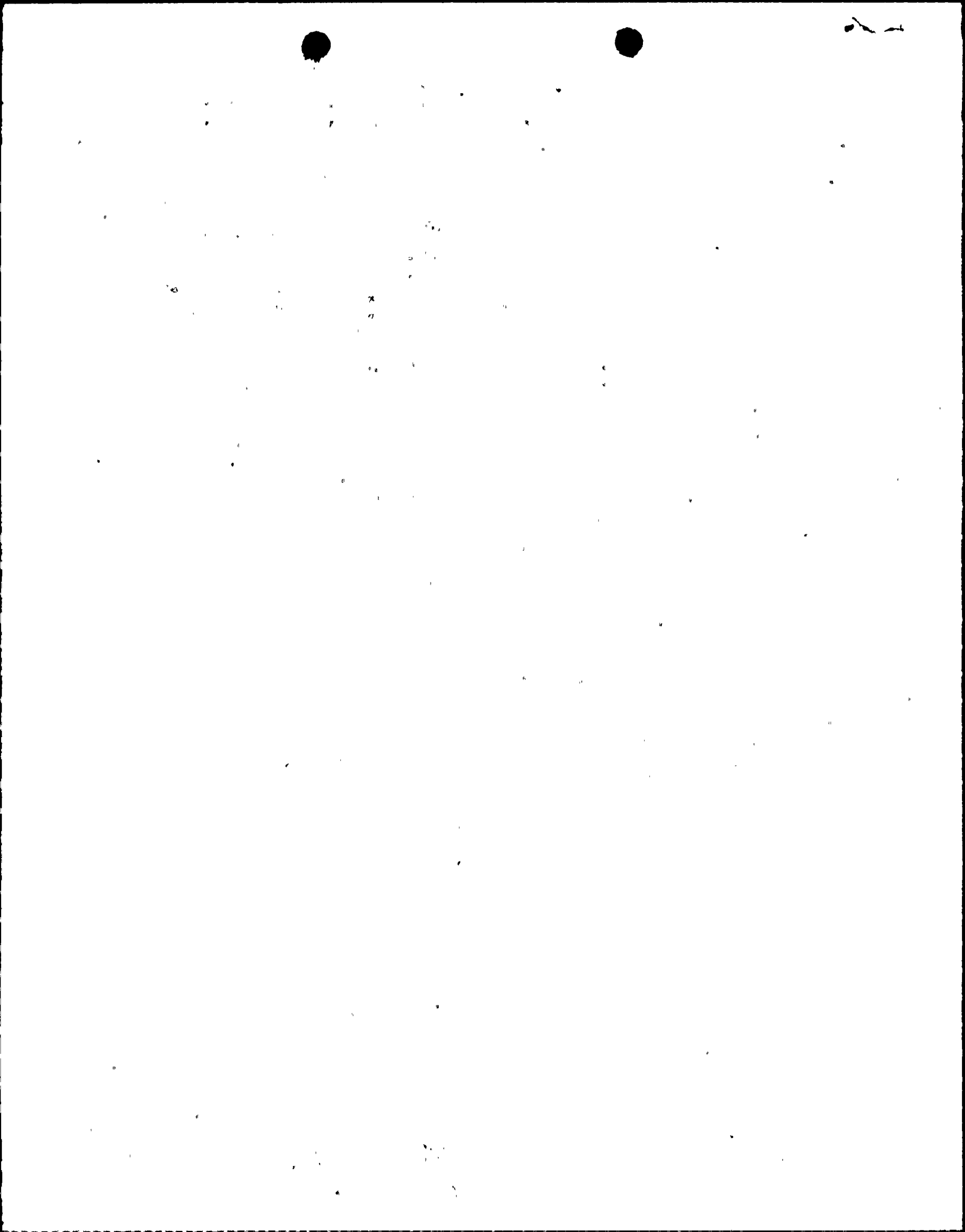
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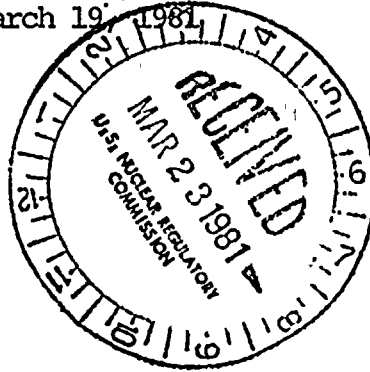
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Office of Nuclear Reactor Regulation  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555

Re: Docket No. 50-275  
Docket No. 50-323  
Diablo Canyon Units 1 and 2

Dear Mr. Miraglia:

The information provided in the attachment to this letter is in response to a NRC staff request for additional clarification of PGandE's submittal of February 6, 1981 regarding Item II.F.2 of NUREG-0737.

Very truly yours,

*Philip A. Crane*

Attachment

CC w/attachment: Service List

Boo 5/11

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INSTRUMENTATION FOR DETECTION OF

INADEQUATE CORE COOLING, II.F.2 OF NUREG-0737

The following provides clarification of PGandE's II.F.2 submittal related to subcooled margin meter (SMM) documentation. The format follows that of the "Documentation Required" section of Item II.F.2 of NUREG-0737.

- (1) See Section 1.B. of PGandE's February 6, 1981 submittal to the NRC staff on Item II.F.2 of NUREG-0737.
- (2) Not Applicable (N/A)
- (3) N/A
- (4) Evaluation of Subcooling Monitor to Appendix B of NUREG-0737, Design and Qualification Criteria for Accident Monitoring Equipment.

Criterion 1. The entire subcooled margin meter system is environmentally qualified in accordance with Regulatory Guide 1.89 except for the redundant display which utilizes an analog recorder and the Incore Thermocouple Inputs.

The redundant analog recorder is located in the control room which has a controlled environment for habitability and, therefore, qualifications for harsh environment have not been considered; however, the recorder is seismically qualified. The Incore Thermocouple Inputs are being upgraded as noted in PGandE's February 6, 1981 submittal regarding Item II.F.2 of NUREG-0737.

Criterion 2. No single failure will prevent the operator from determining the subcooling margin. All components are redundant except for the calculator itself. Should the calculator fail the operator will monitor the loop temperature and pressure and then determine the degree of subcooling using steam tables and procedures specifically provided for this function.

Criterion 3. The SMM is powered by class IE power.

Criterion 4. The SMM will comply with availability requirements.

Criterion 5. Quality Assurance will be provided in accordance with the PGandE Quality Assurance Program as described in the Diablo Canyon FSAR.

Criterion 6. The SMM provides a continuous display.

Criterion 7. The SMM provides continuous reading using an analog recorder.

Criterion 8. The SMM will be identified as a PAM instrument.

Criterion 9. Any non-Class I use of the SMM will be through proper isolation devices.

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Criterion 10. The SMM will be checked using substitute sensor inputs.

Criterion 11. Maintenance and calibration programs will be instituted for the SMM.

Criterion 12-15. Items 12-15 are design considerations which have been considered but do not lend themselves to specific description.

Criterion 16. Direct system temperatures and pressures are used as inputs to the SMM.

Criterion 17. To the extent practical, the SMM will be used during normal operations of the plant, such as heatup and cooldown of the RCS. The range of values are typically in the normal operating range.

Criterion 18. Periodic testing will meet applicable requirements of Regulatory Guide 1.118.

- (5) Although the subcooling margin is also computed in the plant computer, this is not part of the post-accident monitoring system and is not within the scope of this report.
- (6) N/A
- (7) N/A
- (8) A summary of Key Operator Actions consistent with current procedures will be provided by April 15, 1981.
- (9) For the SMM additional submittals will be provided as appropriate. For the Reactor Vessel Level Instrumentation System (RVLIS) portions of the ongoing test program relating to RVLIS are scheduled for completion by November 1981. Reports should be available for submittal to the NRC by January 1982. Documentation of the in-situ calibration of the RVLIS will also be provided at that time.

