INTERIM TECHNICAL REPORT 34 REVISION 1

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STONE & WEBSTER ENGINEERING CORPORATION

VERIFICATION OF DIABLO CANYON PROJECT EFFORTS

BY STONE & WEBSTER ENGINEERING CORPORATION

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PACIFIC GAS & ELECTRIC COMPANY DIABLO CANYON NUCLEAR POWER PLANT INDEPENDENT DESIGN VERIFICATION PROGRAM

INTERIM TECHNICAL REPORT NO. 34 REVISION 1

VERIFICATION OF DIABLO CANYON PROJECT EFFORTS BY STONE & WEBSTER ENGINEERING CORPORATION

PERFORMED BY

STONE & WEBSTER ENGINEERING CORPORATION

DOCKET NO. 50-275 LICENSE NO. DPR-76

Frank Austall h PROJECT MANAGER

DATE <u>3-24-83</u>

F. Sestak, Jr.



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PROGRAM MANAGER'S PREFACE

DIABLO CANYON NUCLEAR POWER PLANT - UNIT I

INDEPENDENT DESIGN VERIFICATION PROGRAM

INTERIM TECHNICAL REPORT

VERIFICATION OF DIABLO CANYON PROJECT EFFORTS BY STONE & WEBSTER ENGINEERING CORPORATION

This is the thirty-fourth of a series of Interim Technical Reports (ITR) prepared by the DCNPP-IDVP for the purpose of providing a conclusion of the program.

This report identifies all additional verification, as required by the Phase II Program Management Plan, which is to be performed by SWEC. A separate report, ITR-35, identifies parallel efforts to be performed by Robert L. Cloud Associates (RLCA).

Because of the commitment by the DCP to undertake the primary effort in each of the five subject areas identified in this ITR, the IDVP will conduct verification of DCP efforts which specifically address the IDVP concerns.

As IDVP Program Manager, Teledyne Engineering Services has approved this ITR. The methodology followed by TES in performing this review and evaluation is described by Appendix A to this report.

ITR Reviewed and Approved **IDVP** Program Manager Teledyne Engineering Services

D. C. Stratouly Assistant Project Manager

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SECTION 1

INTRODUCTION

This Interim Technical Report (ITR) describes the additional verification and additional sample to be performed in accordance with the IDVP Phase II Program Management Plan, Section 3.2.4. The additional verification will be performed by the DCP and its conclusions will be verified by SWEC on a sampling basis.

The Independent Design Verification Program (IDVP) has established that additional verification or an additional sample is required by SWEC for five areas of concern. Specifically, they are:

- Redundancy of equipment and power supplies in shared (Units 1 and 2) safety-related systems,
- Selection of system design pressure and temperature, and differential pressure across power-operated valves,
 - 3. Environmental consequences of postulated pipe ruptures outside of containment,
 - 4. Jet impingement effects due to postulated pipe ruptures inside containment, and
 - 5. Circuit separation and single failure review of safety-related electrical components."



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For each of these areas, the DCP has provided a description of the type of activities it will be performing to support the IDVP verification efforts. The IDVP will verify the results of the DCP efforts. The additional verification represents a horizontal review; that is, review of a particular concern in similar systems, rather than a total vertical review of all design work associated with a new system.

The acceptance criteria for the IDVP verification of DCP work and corrective action, if necessary, are unchanged as described in the Phase II Program Management Plan. For each area of concern, acceptance criteria are outlined in this ITR. Differences between DCP results and acceptance criteria will be documented by the IDVP and evaluated as to source and significance, considering both the specific item and any additional generic concern. If this difference is significant in either of these cases, an EOI file will be opened. If the final results do not meet the licensing basis, it will be identified and reported in accordance with the Phase II Program Management Plan. • • •

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SECTION 2

SUMMARY

In the area of redundancy of equipment and power supplies in shared safetyrelated systems, the DCP will perform two analyses. These analyses will specifically address concerns raised by EOI Files 8012 and 8016 as applied to another shared safety-related system.

To address the concern of selection of system design pressure and temperature, and differential pressure across power-operated valves, the DCP is reviewing these issues for all PG&E designed safety-related systems. The IDVP will review the DCP program criteria to verify code acceptability and will review two safety-related systems in detail to verify that all licensing criteria are met for the selection of system design pressure and temperature, and differential pressure across power-operated valves.

The DCP is reanalyzing the environmental consequences of postulated pipe ruptures outside of containment. The IDVP will review this reanalysis and will perform an independent evaluation in specific areas to verify DCP conclusions.

The jet impingement effects due to postulated pipe ruptures inside containment will be evaluated by the DCP. The IDVP will review the results in specific areas to verify DCP conclusions.

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The DCP is reviewing the electrical and control circuitry for all safetyrelated systems required to achieve safe shutdown or mitigate an accident. The review identifies all mutually redundant circuits and their connection to all devices, including transfer switches. The review includes a field verification to assure that cable/wire separation meets the FSAR requirements. The IDVP will select a sample of the DCP analysis for review to verify circuit separation and to verify single failure criteria conformance for mutually redundant circuits connected to a common transfer switch. The IDVP review will include a field verification of the selected sample circuitry.

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SECTION 3

REDUNDANCY OF EQUIPMENT AND POWER SUPPLIES IN SHARED SAFETY-RELATED SYSTEMS

The results of the IDVP review of the Mechanical/Nuclear Design of the Control Room Ventilation and Pressurization System (CRVP), described in ITR-20, identified concerns about the emergency electrical power supplied to shared safety-related systems. This review included a study of system redundancy ' to determine if the single failure criteria defined in FSAR Section 9.4.1 were met.

Single failures were considered for a failure of a vital bus or failure of an individual component, such as a filtration train, fan, damper, air-conditioning equipment, or instrumentation. The CRVP system flow diagram and duct drawings were used as the basis for the review. The emergency electrical power supply to system components was reviewed for two cases:

1. Unit 1 only operational, and

2. Unit 1 and Unit 2 both operational with a single failure in each unit.

3.1 BASIS OF CONCERN

A review of the emergency electric power supplies demonstrates that adequate electrical power redundancy is not supplied to the CRVP System to meet the single failure criteria identified in FSAR Section 9.4.1. The first concern is that portions of the CRVP System required to maintain the Unit 1 control

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room habitability that are shared between Units 1 and 2 are provided safetyrelated power from the Unit 2 diesel generators and electrical system. If the Unit 2 safety-related electrical system is not available, such as prior to the licensing of Unit 2 or during major outages, the CRVP System does not meet the single failure criteria. The Unit 1 Technical Specifications, Section 3.8.2.1, permit operation in Modes 1, 2, 3, and 4 with only Unit 1 vital electrical buses energized.

The second concern is that portions of the Class 1 CRVP System are shared by Units 1 and 2 and, as such, are provided electrical power from both Units 1 and 2 safety-related electrical systems. The FSAR, Page 8.3-4, states that for a postulated LOCA in one unit and a shutdown in the other unit, each unit can withstand an assumed failure of a vital bus. Thus, in addition to loss of off-site power assumed during the LOCA, each unit could lose a vital bus. The LOCA unit would have two buses available due to the alignment of the swing diesel, and the non-LOCA unit would have one bus available. Evaluation of these failures indicates that there is inadequate electrical power redundancy in the shared CRVP System to meet the single failure criteria. A single failure could result in failure of the CRVP System to isolate, pressurize, and/or select pressurization air from the least contaminated intake, or to provide adequate air-conditioning to remove heat generated from the vital electrical equipment located in the safeguards room.

EOI Files 8012 and 8016 have identified these concerns. Generic considerations require additional verification by selecting another shared system for analysis.

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3.2 IDVP VERIFICATION OF THE DCP EFFORT

The DCP will review the power supplies for the Diesel Fuel Oil Transfer System and any other safety-related shared systems identified in response to Document Request No. 66 to address the concerns of adequate electrical power redundancy identified above, considering the same type of bus failures. The IDVP will verify this effort.

The IDVP will verify the modifications required for resolution of EOI Files 8012 and 8016 and determine their compliance with licensing criteria.

3.3 ACCEPTANCE CRITERIA

The Diesel Fuel Oil Transfer System and any other safety-related shared system identified as a result of Document Request No. 66 must satisfy the single failure criteria, including the licensing commitments for bus failure with either:

1. Unit 1 only operational, or

2. Units 1 and 2 both operational.

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3.4 DOCUMENTATION REQUIRED TO SUPPORT REVIEW

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Documentation requests have been issued for the information required to support the additional verification effort. The two associated with the shared safety-related system review are:

 Request No. 48, dated December 10, 1982 (Diesel Fuel Oil Transfer System), and

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 Request No. 66, dated March 4, 1983 (identification of other shared safety-related systems).

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SECTION 4

SELECTION OF SYSTEM DESIGN PRESSURE AND TEMPERATURE, AND DIFFERENTIAL PRESSURE ACROSS POWER-OPERATED VALVES

The IDVP review of the Mechanical/Nuclear Design of the Auxiliary Feedwater System (AFW), described in ITR-22, identified selection of system design pressure and temperature as an area requiring further verification. This review included verification of:

- Specification of design pressure and temperature for system piping, fittings, components, and mechanical equipment,
- The isolation of low pressure piping, fittings, components, and mechanical equipment from the effects of the higher pressure portion of the system, and
- A review of all system piping, fittings, components, and mechanical equipment for compatibility with the specified design pressure and temperature.

FSAR Tables 3.2-3 and 3.2-4 were used to identify the applicable piping codes. Technical documentation including PG&E line designation tables, specifications, drawings, and calculations were reviewed to identify the design basis.

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An independent calculation and analysis were made to determine if the selected design pressure met the applicable piping code requirements. The pump curves, arrangement drawings, and the piping code were used for calculating system design pressure. Piping schematics were reviewed to determine if low pressure components could be exposed to high pressure sources.

4.1 BASIS OF CONCERN

The IDVP review of the AFW system selected design pressure for piping, fittings, components, and mechanical equipment determined that the applicable design codes for selection of design pressure were not met. These design codes require the system to be designed for the most severe condition of coincident pressure, temperature, and other loading. Additionally, the design must consider the effects of static head, and maximum sustained pressure at any pump load in accordance with the applicable code. The selected system design pressure did not meet the requirements of the code.

The protection of low pressure piping, fittings, components, and mechanical equipment from the effects of high pressure sources was reviewed. It was determined that the applicable design code was not met as the piping, fittings, components, and mechanical equipment are not adequately protected during some operating conditions.

A review of value actuators has indicated that FCV 95 (steam admission to the AFW pump turbine) is required to operate against higher differential pressures than initially considered.

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EOI Files 8009, 8010, and 8062 address these concerns.

4.2 IDVP VERIFICATION OF THE DCP EFFORTS

The DCP is reviewing system design pressure and temperature concerns for all safety-related systems within the PG&E design scope. The DCP review includes confirming design pressures and temperatures for PG&E designed safety-related systems for all operating modes and revising their internal document (DCM-M46) as required. The PG&E systems are:

- Auxiliary Feedwater
- Main Feedwater (Safety Portions Only)
- Component Cooling Water
- Auxiliary Saltwater
- Main Steam (Safety Portions Only)
- Containment Hydrogen Purge
- Makeup Water (Safety Portions Only)
- Diesel Generators
- Nitrogen and Hydrogen (Safety Portions Only)
- Containment Isolation.

Piping components (including flanges and valves) will be verified for code acceptability using pressures and temperatures calculated for these systems and the applicable purchase spécifications. Calculations will be prepared to document code compliance of the design conditions assigned to each pipe and flange specification. All temperatures and pressures listed in DCM-M46 will be reviewed with the current pipe and flange specification design

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conditions. Those that are within the design conditions are acceptable. Those falling outside the design condition temperature or pressure will be resolved by performing calculations to determine the acceptability of the components or issuing a design change if the component is not acceptable. PG&E Class 1 piping valve specifications or purchase documents used for the systems listed will be reviewed. The individual valve ratings will be reviewed against the pressure and temperatures in DCM-M46 or compared with the associated pipe specification flange rating. Those that have ratings that meet these conditions are acceptable. Those that do not meet these requirements will be resolved by performing calculations to determine acceptability or by issuing a design change.

Mechanical equipment contained within the reviewed systems will be reviewed to verify their ability to withstand the pressures and temperatures calculated by reviewing the appropriate purchase documentation that specifies the design rating of the equipment.

To address the concern of specification of maximum differential pressure across power-operated valves, the DCP will develop a list of valves from these systems that are to be reviewed. The maximum differential pressure at which each valve is designed to operate will be determined using purchase data sheets, or vendor information. The maximum differential pressure at which each valve is required to operate will be determined. These pressures will be compared to the purchase information available for the specific valve to verify the acceptability of each valve reviewed.

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The basis for the DCP review method and design criteria will be verified to determine if it meets the intent of the applicable code and that it has been applied to all PG&E designed safety-related systems. Detailed verification by the IDVP of samples from two systems is described in Section 4.3.

4.3 IDVP VERIFICATION OF TWO ADDITIONAL SYSTEMS

In addition to the review of the DCP Scope of Work, discussed in Section 4.2, a sample selected from two safety-related systems designed by PG&E will be independently reviewed by the IDVP for the selection of system design pressure and temperature, and differential pressure across power-operated valves. The systems are the Component Cooling Water (CCW) and the Main Steam (MS) Systems.

The design values specified in DCM-M46 for these systems will be reviewed and/or compared to IDVP independently calculated values. The basis of the DCP reported values will be compared to values specified for power-operated valve actuator sizing, piping, fittings, components, and mechanical equipment design. System design temperatures calculated by the DCP will be used by the IDVP when verifying piping, fittings, components, and mechanical equipment acceptance.

The system design will be reviewed to determine if lower pressure portions are protected from higher pressure portions in a code acceptable manner.

4.4 ACCEPTANCE CRITERIA

The Design Criteria Memorandum (DCM-M46) values of system design pressure for the CCW and MS Systems will be verified for compliance with the applicable codes. The DCP will notify the IDVP when their additional verification for PG&E designed safety systems is complete.

The new values specified for the AFW System (EOI 8009) will be verified for code compliance.

4.5 DOCUMENTATION REQUIRED TO SUPPORT REVIEW

Documentation requests have been issued for the information required to support the additional verification effort. Those associated with the design pressure/temperature review are:

- 1. Request No. 46, dated December 7, 1982 (CCW System),
- 2. Request No. 47, dated December 9, 1982 (MS System), and

3. Request No. 53, dated January 25, 1983 (DCM-46).

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SECTION 5

ENVIRONMENTAL CONSEQUENCES OF POSTULATED PIPE RUPTURES OUTSIDE OF CONTAINMENT

ITR-14 identified concerns about the adequacy of calculations determining the pressure and temperature values to be used for safety-related equipment qualification outside containment. The review was performed on a sample of analyses performed by Nuclear Services Corporation (NSC) for environments in areas GE/GW of the Auxiliary Building and the Turbine Building using the CONTEMPT computer program. Independent calculations of mass and energy release data as well as the pressure, temperature, and humidity transients were performed using the SWEC THREED computer program. A sensitivity study was performed to determine the differences in magnitude of pressure and temperature transient calculations which could be attributed solely to the use of the different computer programs.

Selected piping, structural steel, equipment location, and concrete drawings were also reviewed. Verification that NSC and SWEC geometric models adequately reflected "as-built" conditions of the plant was accomplished by a site inspection of the areas of interest.

5.1 BASIS OF CONCERN

The review resulted in the identification of a fundamental error associated with the inapplicability of the CONTEMPT computer program used by NSC for calculation of environments outside the containment. The NSC calculations resulted in temperature and pressure transients which were too low.

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The EOI files associated with this section are 8001, 8003, 8006, 8033, and 8034.

5.2 IDVP VERIFICATION OF THE DCP REANALYSIS

The DCP reanalyses of the High Energy Line Breaks (HELBs) are used to determine the environmental parameters for the qualification of safety-related equipment outside containment. The IDVP verification will be limited to the DCP calculations of pressure and temperature since this was the area identified as unsatisfactory in the initial review of the AFW and CRVP Systems.

5.2.1 Computer Program Sensitivity Analysis

A computer program sensitivity calculation will be performed by the IDVP to determine the difference in calculated pressure and temperature transients which can be attributed to using different computer programs.

The SWEC computer program, THREED, will be run utilizing input data supplied by the DCP to the maximum extent possible for one specific calculation. The magnitude of the difference in results will be assessed and used as a guide . for the comparison of results as detailed in Section 5.2.2.

5.2.2 Review of Inputs, Methodology, and Results of Sample Analyses

An IDVP review of the DCP analyses to calculate the pressure and temperature transients in areas GE/GW and the Turbine Building will be performed. The review will verify the calculational methods, inputs, and results.

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The pressure and temperature transients calculated by the DCP will be compared with the results obtained from independent calculations performed by the IDVP. The calculations already performed as part of the initial sample verification of the NSC calculations will be utilized as much as possible. Any differences which are attributable to variations of input data and different computer programs will be assessed.

5.2.3 Review of Implementation and Completeness of Remaining Analyses

The IDVP will verify that the DCP has appropriately reanalyzed the environmental conditions in all other areas. This will consist of a review of models, blowdown calculations, assumptions, and pressure and temperature results to ensure the calculational methods verified by Sections 5.2.1 and 5.2.2 have been employed in the remaining areas which require pipe rupture analysis to determine environments for equipment qualification.

5.3 ACCEPTANCE CRITERIA

The DCP reanalyses of the environmental consequences due to pipe ruptures outside containment will be acceptable if the IDVP concurs that all appropriate areas have been considered and if the concerns, listed below, of EOI Files 8001, 8003, 8006, 8033, and 8034 are addressed.

Assumptions concerning door positions,

All areas containing safety-related equipment,

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- The use of an appropriate multiple node computer program,
- Appropriate enthalpy values of release,
- Appropriate calculation for steam generator releases or use of Westinghouse supplied data, and
- Consideration of adjacent compartments.

5.4 DOCUMENTATION REQUIRED TO SUPPORT REVIEW

The information and documentation required to support the IDVP review and acceptance of the DCP reanalyses of pressure and temperature environments are identified by Documentation Request No. 56, dated January 27, 1983.

Supporting documentation of the inputs and calculations that have not been transmitted to the IDVP should also be included with the above.

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SECTION 6

JET IMPINGEMENT EFFECTS OF POSTULATED PIPE RUPTURES INSIDE CONTAINMENT

The Diablo Canyon FSAR, Section 3.6, makes specific commitments relative to the protection of safety-related systems, structures, and components from the effects of HELBs inside the containment.

6.1 BASIS OF CONCERN

An investigation by R. F. Reedy, Inc. has reported that specific PG&E documentation of HELB jet impingement analyses cannot be located. Such documentation is required to demonstrate compliance with licensing commitments specified above.

Since EOI 7002 is a QA Finding, the Program Management Plan requires that an additional sample be considered. The IDVP has selected the verification of DCP efforts providing these calculations.

6.2 IDVP VERIFICATION OF THE DCP EFFORTS

The DCP is performing a complete reanalysis of the effects of HELB jet impingement on safety-related systems, structures, and components inside containment. The following sections describe the approach the IDVP will use to verify the DCP response to EOI File 7002.

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6.2.1 Criteria and Methodology

The IDVP review will consist of a sample of the DCP jet impingement reanalysis. The governing criteria will be the licensing commitments contained in FSAR Section 3.6 and the assumptions and methodology used in the DCP reanalysis procedure.

6.2.2 Procedure Completeness and Implementation

The IDVP verification effort will include a review of the DCP jet impingement reanalysis procedure on inside containment to establish agreement with the technical approach. The review will address (but not necessarily be limited to) items such as:

- Verification that break locations agree with specified regulatory guidance,
- Review of the jet pressure and temperature vs distance curves for breaks in randomly selected high energy lines, and
- Review of the jet impingement pressure damage threshold criteria for selected safety-related components (e.g., conduit).

After establishing agreement with the DCP technical approach, the DCP jet impingement reanalysis procedure (as revised to include IDVP comments and requests for clarification) will be used by the IDVP as the basis for the field walkdown to be done to verify implementation of the procedure.

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6.3 FIELD VERIFICATION

The IDVP will conduct a field walkdown of the sample system(s) or area(s) selected. The field walkdown will use the same methods presented in the DCP jet impingement reanalysis procedure.

6.4 ACCEPTANCE CRITERIA

The IDVP verification work will use the following acceptance criteria:

- Existing licensing commitments in FSAR Section 3,6, and
- Criteria established as part of the DCP jet impingement reanalysis procedure.

The primary purpose of the IDVP review and field walkdown is to verify the adequacy of the DCP Program to assure that proper separation from the effects of HELB jet impingement is provided for safety-related systems, structures, and components inside containment. Where jet-target interactions are identified, the IDVP will review the DCP systems analysis to establish whether or not the target is essential to mitigate the effects of the specific pipe break in question.

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6.5 DOCUMENTATION REQUIRED TO SUPPORT REVIEW

The DCP jet impingement reanalysis procedure for inside containment, including specific details and drawings showing jet zones developed, and the document requests listed below are required to support the IDVP verification:

- Document Request No., 55, dated January 26, 1983,
- Document Request No. 67, dated February 28, 1983,
- Document Request No. 72, dated March 10, 1983, and
- Document Request No. 73, dated March 15, 1983.

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SECTION 7

CIRCUIT SEPARATION AND SINGLE FAILURE REVIEW OF SAFETY-RELATED ELECTRICAL EQUIPMENT

The IDVP review of instrumentation and control of the Auxiliary Feedwater System (AFW), described in ITR-27, and the Control Room Ventilation and Pressurization System (CRVP), described in ITR-28, identified separation of mutually redundant electrical circuits and application of single failure criteria to electrical equipment as requiring additional verification.

7.1 BASIS OF CONCERN

The basis of concern is detailed in Section 7.1.1 for Circuit Separation and Section 7.1.2 for Single Failure Review of Safety-Related Electrical Equipment.

7.1.1 Circuit Separation

Control panels containing auxiliary feedwater and control room ventilation and pressurization system control circuits were field-verified for separation of mutually redundant circuits. As committed to in FSAR, Section 8.3.3, separation is required to meet the single failure criteria. This review identified several instances of circuits with a mutually redundant function connected to the same terminal block, exposed wiring at end connections to devices, and instruments not separated by at least 5 inches. It also identified mutually redundant circuits not separated by one of the eight methods listed in the FSAR Section 8.3.3.

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The concern is that a single failure may result in the loss of mutually redundant trains of a safety-related system.

EOI File 8057 addresses this concern.

7.1.2 Single Failure Review of Safety-Related Electrical Equipment

The IDVP review of the instruments and controls for the CRVP System revealed ' that a portion of the control system did not meet the single failure criteria for safety-related systems.

Redundant equipment is provided for the CRVP System. Each train of equipment is powered from a separate redundant Class IE power source. Mutually redundant sources of power, however, are brought together in one electrical control transfer switch which is used to select the train to operate. Failure of this switch could result in loss of electrical power to both trains of the CRVP System.

EOI File 8017 addresses this concern.

7.2 IDVP VERIFICATION OF DCP EFFORTS

The DCP will review all safety-related systems and identify the circuits required to achieve safe shutdown or mitigate an accident.

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The DCP will then determine that mutually redundant circuits and devices within the same enclosure have been properly identified and noted as requiring separation. In addition, a field review of all mutually redundant safety-related circuits located in common enclosures will be done to ensure that they are separated as required by the commitments stated in FSAR Section 8.3.3.

Also, as part of this review, the DCP will identify any mutually redundant circuits that are connected to the same device. In these instances, a single failure analysis will be done to determine the impact of this condition upon the system.

Upon completion of the additional verification performed by the DCP, the IDVP will select a sample of the above systems and will verify the analyses.

The IDVP will verify the modifications required for resolution of EOI Files 8017 and 8057.

7.3 FIELD VERIFICATION

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The IDVP will perform a field review associated with the selected sample referred to in Section 7.2 to determine if mutually redundant circuits are separated in accordance with licensing commitments of FSAR Section 8.3.3.

Other than the modifications required for resolution of EOI File 8017, field verification of single failure review will not be performed.

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7.4 ACCEPTANCE CRITERIA

The sample systems must satisfy the single failure criteria of IEEE Standard 279-1971, as well as the intent of IEEE Standard 308-1971 for electrical independence. These systems must also meet the commitments in FSAR Section 8.3.3.

7.5 DOCUMENTATION REQUIRED TO SUPPORT REVIEW

Documentation required to verify the DCP performed additional verification for concerns of EOI Files 8017 and 8057 will be requested after the DCP notifies the IDVP that the additional verification is complete.

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APPENDIX A

PROGRAM MANAGER'S ASSESSMENT

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PROGRAM MANAGER'S ASSESSMENT

Independent review by TES of the tasks to be performed by SWEC to verify the Diablo Canyon Project (DCP) efforts will be done in accordance with the IDVP Phase II Program Management Plan.

Draft ITR-224 issued on 821223 identified the additional activities to be conducted by the IDVP. Since that time, several meetings between the IDVP participants and the DCP were held. These meetings were attended by the NRC staff and the Designated Other Parties who were informed in accordance with IDVP procedures. These activities resulted in the issuance of TES letter 5511-249 of 830118, which replaced Draft ITR-224. This letter identified the specific areas of IDVP concern requiring additional verification. Responses to outstanding EOI Files resulted in other areas. The result is that five (5) subject areas are identified requiring additional verification. The DCP will perform specific tasks in these areas and the IDVP will verify those efforts.

The results of this ITR will be documented in separate additional activities ITR's upon completion of the work described herein.

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