

U.S. NUCLEAR REGULATORY COMMISSION

REGION V

Report Nos: 50-275/93-29 and 50-323/93-29  
Docket Nos: 50-275 and 50-323  
License Nos: DPR-80 and DPR-82  
Licensee: Pacific Gas and Electric Company  
Nuclear Power Generation, B14A  
77 Beale Street, Room 1451  
P. O. Box 770000  
San Francisco, California 94177  
Facility Name: Diablo Canyon Units 1 and 2  
Inspection at: Diablo Canyon Site, San Luis Obispo County, California  
Inspection Conducted: September 29 through November 3, 1993  
Inspectors: M. Miller, Senior Resident Inspector  
M. Tschiltz, Resident Inspector  
D. Corporandy, Project Inspector  
(October 4-8, 1993)  
D. Kirsch, Technical Advisor, Division of Reactor  
Safety and Projects, Region V  
(September 29 - October 1, 1993)  
F. Huey, Enforcement Officer, Region V  
(October 21-22, 1993)

Approved by:

  
P. H. Johnson, Chief  
Reactor Projects Section 1

11-24-93  
Date Signed

Summary:

Inspection on September 29 through November 3, 1993 (Report Nos. 50-275/93-29 and 50-323/93-29)

Areas Inspected: Routine, announced resident inspection of plant operations; maintenance and surveillance activities; follow-up of onsite events, open items, and licensee event reports (LERs); and selected independent inspection activities. Inspection Procedures 40500, 61726, 62703, 71707, 90712, 92701, and 93702 were used as guidance during this inspection.

Safety Issues Management System (SIMS) Items: None



Results:

General Conclusions on Strengths and Weaknesses:

The licensee continued operation with no events, no significant equipment failures, and no significant personnel errors (Paragraph 2).

Significant Safety Matters: None

Summary of Violations: A non-cited violation was identified for several cases of minor procedural non-compliance (Paragraph 4).



DETAILS

1. Persons Contacted

Pacific Gas and Electric Company

G. M. Rueger, Senior Vice President and General Manager,  
Nuclear Power Generation Business Unit  
J. D. Townsend, Vice President and Plant Manager, Diablo  
Canyon Operations  
W. H. Fujimoto, Vice President, Nuclear Technical Services  
\*M. J. Angus, Manager, Nuclear Engineering Services  
\*R. P. Powers, Manager, Nuclear Quality Services  
\*J. A. Sexton, Manager, Nuclear Regulatory Services  
\*J. S. Bard, Director, Mechanical Maintenance  
D. H. Behnke, Senior Engineer, Regulatory Compliance  
G. M. Burgess, Director, Systems Engineering  
\*W. G. Crockett, Manager, Technical and Support Services  
S. R. Fridley, Director, Operations  
\*R. D. Glynn, Senior Quality Assurance Supervisor  
\*T. L. Grebel, Supervisor, Regulatory Compliance  
B. W. Giffin, Manager, Maintenance Services  
C. R. Groff, Director, Plant Engineering  
\*J. R. Hinds, Director, Nuclear Safety Engineering  
\*K. A. Hubbard, Engineer, Regulatory Compliance  
T. M. McKnight, Senior Engineer, Quality Control  
\*J. E. Molden, Acting Director, Operations Services  
\*S. R. Ortore, Director, Electrical Maintenance  
J. M. Rappa, General Foreman, Electrical Maintenance  
P. G. Sarafian, Senior Engineer, Nuclear Quality Services  
R. A. Savard, Director, Technical Services  
\*J. A. Shoulders, Director, Onsite Nuclear Engineering Services  
D. A. Taggart, Director, Onsite Quality Assurance  
R. C. Washington, Acting Director, Instrumentation and  
Controls

\*Denotes those attending the exit interview.

The inspectors interviewed other licensee employees including shift supervisors, shift foremen, reactor and auxiliary operators, maintenance personnel, plant technicians and engineers, and quality assurance personnel.

2. Operational Status of Diablo Canyon Units 1 and 2

During this inspection period, Unit 1 operated at 100 percent power except for a reduction to 50 percent power on October 15, 1993, for approximately twenty-nine hours, to perform cleaning of the circulating water pump 1-2 forebay.

Unit 2 operated at 100% power for the entire report period.



3. Operational Safety Verification (71707) --

a. General

During the inspection period, the inspectors observed and examined activities to verify the operational safety of the licensee's facility. The observations and examinations of those activities were conducted on a daily, weekly, or monthly basis.

On a daily basis, the inspectors observed control room activities to verify compliance with selected Limiting Conditions for Operation (LCOs) as prescribed in the facility Technical Specifications (TS). Logs, instrumentation, recorder traces, and other operational records were examined to obtain information on plant conditions and to evaluate trends. This operational information was then evaluated to determine whether regulatory requirements were satisfied. Shift turnovers were observed on a sampling basis to verify that all pertinent information on plant status was relayed to the oncoming crew. During each week, the inspectors toured accessible areas of the facility to observe the following:

- (1) General plant and equipment conditions
- (2) Fire hazards and fire fighting equipment
- (3) Conduct of selected activities for compliance with the licensee's administrative controls and approved procedures
- (4) Interiors of electrical and control panels
- (5) Plant housekeeping and cleanliness
- (6) Engineered safety features equipment alignment and conditions
- (7) Storage of pressurized gas bottles

The inspectors talked with control room operators and other plant personnel. The discussions centered on pertinent topics of general plant conditions, procedures, security, training, and other aspects of the work activities.

b. Radiological Protection

The inspectors periodically observed radiological protection practices to determine whether the licensee's program was being implemented in conformance with facility policies and procedures and in compliance with regulatory requirements. The inspectors verified that health physics supervisors and professionals conducted frequent plant tours to observe activities in progress and were aware of significant plant activities, particularly those related to radiological conditions and/or challenges. ALARA considerations were found to be an integral part of each RWP (Radiation Work Permit).





c. Physical Security

Security activities were observed for conformance with regulatory requirements, the site security plan, and administrative procedures, including vehicle and personnel access screening, personnel badging, site security force manning, compensatory measures, and protected and vital area integrity. Exterior lighting was checked during backshift inspections.

No violations or deviations were identified.

4. Minor Failures to Comply With Procedures (93702)

During this inspection report period, several minor examples occurred which involved the licensee's failure to comply with their procedures. Although each of these cases was of low safety significance, the number of examples indicated a lack of attention-to-detail in procedure implementation. These cases are described briefly below.

a. Improper Performance of Diesel Generator Surveillance Testing

On November 1, 1993, during the performance of routine surveillance test STP M-9A, Revision 25, "Diesel Engine Generator Routine Surveillance," for emergency diesel generator (EDG) 1-1, a licensed operator mistakenly went to the wrong 4-KV switchgear room and actuated a relay which inadvertently started EDG 1-3. The purpose of surveillance test was to verify that a start-up bus under-voltage relay output sent an auto-start signal to the EDG 1-1 supplying 4 KV Bus "H". When STP M-9A directed the operator to actuate the start-up transformer relay toggle switch for EDG 1-1, the licensed operator incorrectly went to bus "F" associated with EDG 1-3.

Control room operators immediately recognized that the incorrect EDG had been started. EDG 1-3 was run for 5 minutes and secured without loading in accordance with licensee procedures. The licensee reported the occurrence in a four-hour, non-emergency report to the NRC, after classifying it as a condition that resulted in the actuation of an engineered safety feature (ESF). The inspectors will review the licensee corrective actions associated with the event after issuance of the licensee event report.

b. Exhaust Fan 104, Auxiliary Salt Water Pump Vault Ventilation Fan Improper Lifted Lead Record

On October 21, 1993, an NRC inspector observed portions of the replacement of auxiliary salt water (ASW) pump 2-1 room ventilation exhaust fan E-104 due to motor bearing degradation. Fan E-104's safety function is to provide ventilation cooling for the ASW pump. During the review of the work package and the observation of the restoration and associated retest of the fan motor, the inspector noted that the E-104 fan motor did not start as expected when ASW pump 2-1 was started.

The inspector noted that the fan motor controller fuse had been



removed and the load side of the circuit grounded in accordance with the licensee's standard electrical safety work practices by the electrician who initially prepared for the fan replacement. However, the removal of the fan controller fuse was not recorded on the lifted circuit and tag control status sheet and the caution tag identifying that the fuse was removed was hung on the interior of the electrical panel. Therefore, the caution tag was not visible to the personnel performing the restoration without opening the panel. Additionally, the annotation for the caution tag on the lifted circuit and tag control status sheet did not clearly indicate that the fuse was removed. Consequently, during the electrical restoration for post-maintenance testing the controller fuse was not re-installed. The failure to log the fuse removal on the lifted circuit and tag control status sheet was a violation of the requirements of licensee procedure AP C-4S3 Revision 4, "Control of Lifted Circuitry, Process Tubing and Jumpers During Maintenance Leads and Circuits".

c. Surveillance Test Steps Performed Out of Sequence

On September 30, 1993, the NRC inspectors observed the performance of surveillance test STP I-16A2B, Revision 8, "Actuation Logic Test of Protection System Logic", and portions of STP I-16A1, Revision 11, "Removal from Service of the SSPS for Actuating Logic Testing During Modes 1, 2, 3, or 4," for Unit 2. The inspectors noted that the instrumentation and controls (I&C) personnel were familiar with both the procedure and the equipment. During the surveillance the I&C personnel understood and anticipated the results of their actions and kept the control room operator informed of the performance of steps which initiated annunciator alarms. However, the NRC inspectors identified two minor concerns listed below.

- STP I-16A1 requires the reactor trip bypass circuit breakers to be racked into the test position and closed. Contrary to operations procedure OP A-3:IV Revision 10, "Control Rod System - Manual Operation of Reactor Trip and Bypass Breakers," the licensed operator attempted to close the train B reactor trip bypass breaker without first re-installing the associated DC control power fuses. After the initial unsuccessful attempt to close the trip breaker the operator re-installed the DC control power fuses and closed the trip bypass breaker. Although the operator had reviewed the procedure prior to performing the required actions, he did not accomplish the procedure steps in the specified sequence.
- At two points in STP I-16A2B, the NRC inspector noted that the I&C technician operating the equipment was performing the test steps faster than the I&C technician reading the procedure could read and record the results and initial for the completion of the step. In one instance, this resulted in the testing of a function with the function test switch in the incorrect position. In the second instance, this resulted in the I&C mechanic performing a step prior to the procedure reader being able to ascertain if the actions taken were in the



procedure. In each of these instances, the improper operation of equipment and the potential for the improper operation of equipment was introduced by not reading and understanding the procedural step prior to operating plant equipment. The inspectors discussed these concerns with Maintenance, Operations, and Quality Assurance management. Licensee management has discussed these attention-to-detail concerns with supervision and technician staff, and has scheduled further discussions with supervisors and technicians in this area.

d. Surveillance Procedure Steps Performed Out of Sequence to Meet Intent of Procedure

On October 13, 1993, the NRC inspector observed surveillance procedure STP V-3H8, Revision 8, "Exercising FCV-430 and FCV-431 CCW System Heat Exchanger Isolation Outlet Valves," which tested the stroke times of valves FCV-430 and FCV-431. The operators noted that, for the heat exchanger valve line-up in service in Unit 2, if the procedure steps were followed as written, the valves would be stroked once prior to obtaining the stroke times. This would precondition the valves, contrary to the prohibition of preconditioning stated in the procedure. When the NRC inspector questioned the implementation of steps out of order, the licensee issued AR A0431906 to review the circumstances of the event. The licensee determined that the operators understood the intent of the procedure and that all the steps were performed. However, if the steps had been performed in the order written, the intent of the procedure would not have been met for the Unit 2 initial test conditions. A more appropriate approach would have been to change the procedure before implementation to address all the possible initial test conditions.

In response to these and other examples of incorrect implementation of procedures which were identified by the licensee, operations management issued a memorandum, and briefed all operations crew members on the need for attention-to-detail and procedural compliance. The memorandum and discussions with shift members reviewed lessons learned from improper procedure implementation. The maintenance organization has identified the need for consistency in expectations regarding procedure compliance, and is continuing emphasis in this area. Human performance expertise has been applied in both the maintenance and operations organizations.

Each of these occurrences of failure to follow procedures was of very low safety significance. However, the programmatic aspects of lack of compliance with procedures indicate a potential problem. These examples of a failure to follow plant procedure requirements are a violation of TS 6.8.1. Since the violations, even in aggregate, are of low safety significance, and since the criteria of Section VII.B.2 of the enforcement policy were satisfied, this violation is not cited (50-275/93-29-01, closed).

One non-cited violation was identified.



5. Maintenance (62703)

During the inspection period, the inspectors observed portions of, and reviewed records on selected maintenance activities to assure compliance with approved procedures, Technical Specifications, and appropriate industry codes and standards. Furthermore, the inspectors verified that maintenance activities were performed by qualified personnel, in accordance with fire protection and housekeeping controls, and that replacement parts were appropriately certified.

The inspectors observed portions of the following maintenance activities:

<u>Description</u>	<u>Dates Performed</u>
Replacement and retest of ASW pump 2-1 ventilation exhaust fan E-104 (Work order:C0119279)	October 21, 1993
Replacement and retest of Diesel Generator 2-1 125 VDC undervoltage relay (Work order:C0119171)	October 18, 1993
Main annunciator spare wire identification (Unit 1) (Work order:C0118304)	September 29, 1993
Scaffolding installation in 125 VDC switchgear room 1-3 to support pre-outage inverter replacement (Work Order:C0117487)	October 4, 1993
Block Wall Modifications in 4 KV Switchgear areas, Units 1 and 2	October 12, 1993 and October 19, 1993

On September 29, 1993, an inspector observed ongoing work in the Unit 1 cable spreading room on the annunciator panels. The annunciator panel doors on both sides of the cabinets were removed for modification and spare cables were hanging out of the cabinets and secured to overhead supports. The inspector expressed concerns to licensee management over work on an operating system in preparation for the next outage. The ongoing work involved spare wiring identification, relocation and removal. The circuits were energized, since the main annunciator could not be removed from service while the work was being performed. The licensee did not restrict access into areas adjacent to the open energized panels until after the inspector raised concerns over the access into the area. In response to these concerns, the licensee placed boundary tape at the entrance points for the work areas associated with open panels. The inspectors will continue to closely monitor the control of the work area and the extent of the work being performed as part of routine inspection activities.

No violations or deviations were identified.





6. Surveillance (61726)

The inspectors reviewed a sampling of Technical Specifications (TS) surveillance tests and verified that: (1) a technically adequate procedure existed for performance of the surveillance tests; (2) the surveillance tests had been performed at the frequency specified in the TS and in accordance with the TS surveillance requirements; and (3) test results satisfied acceptance criteria or were properly dispositioned.

The inspectors observed portions of the following surveillance tests on the dates shown:

<u>Procedure</u>	<u>Description</u>	<u>Dates Performed</u>
STP I-16A2B	Actuation Logic Test of Protection System Logic, including Protection Master Relays and Reactor Trip-Breakers	September 30, 1993
STP I-16A1	Removal From Service of the SSPS for Actuation Logic Testing	September 30, 1993
STP V-3P5	Exercising and Timing of Valves LCV-106,107,108 and 109 Auxiliary Feedwater Pump Discharge	October 7, 1993
STP M-9A	Diesel Generator Routine Surveillance	October 18, 1993
STP-3H8	Exercising FCV-430 and FCV-431, CCW Heat Exchanger Outlet Isolation Valves	October 13, 1993

One non-cited violation was identified, which is discussed in Paragraph 4 above.

7. Review of Quality Hotline (QHL) Program (40500)

As of October 22, 1993, the following statistics were noted with regard to the Quality Hotline files initiated by the licensee during the last four years:

	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>
Number of NSC concerns submitted:	4	4	7	5
Number of anonymous concerns:	2	2	5	5
Number using QHL Hotline Recording Machine:	1	2	5	3
Average length of time to close file (weeks):	66	34	37+	18+
Longest period file was open (weeks):	145	100	56+	36+
Number of concerns substantiated:	2	1	3	2
Number of files remaining open:	0	0	3	1

The inspector reviewed the licensee's procedures and training covering the QHL program and each of the QHL files noted above, identifying the following observations:



- Licensee procedure OM3.ID3, Quality Hotline, implements the licensee's Quality Hotline program. The licensee's program is significantly different from others in Region V, in that, the program is structured to place high emphasis on users of the program remaining completely anonymous. Although this approach appears to have merit in that potential users of the program may feel more comfortable, the inspector noted several concerns that may warrant additional consideration:
  - Specific details of the employee's concerns may not be clearly understood and documented.
  - The employee is not provided with a clearly documented resolution of his concerns. Failure to provide a formal closure letter may detract from employee confidence in the formality and thoroughness of the QHL program. A formal closure letter appears to be especially important for concerns that are determined to be unsubstantiated. Failure to do so may result in a chilling effect of the employee and/or result in his pursuing his concerns elsewhere.
  - The licensee may miss valuable opportunities for employee feedback on the QHL process.
- Licensee procedure OM3.ID3 provides no requirements for security of QHL files or how employee confidentiality is to be maintained in instances where the employee's name is known. The inspector noted that the QHL log and some of the QHL files (August 21, 1991 log entry, and files 91-02 and 90-03) contain the employee's identity, yet these documents are not secure. The inspector also noted that the licensee's QHL phone recording machine was not secure.
- The QHL log identified a July 5, 1991, concern about unqualified members of the fire brigade for which no QHL file was initiated.
- Licensee procedure OM3.ID3 does not provide specific requirements for how files are to be closed or who is authorized to close out QHL files. Few of the files included clear documentation as to how each of the employee's concerns had been resolved.
- The time required to close some files seems excessive (e.g., 145 weeks). Although the inspector did not evaluate the reasons for files remaining open for extended periods, the lack of specific requirements for periodic review and management oversight of file status may result in unwarranted delays in resolving significant employee concerns.
- Safety concern training provided to licensee and contractor supervisory personnel does not specifically emphasize the supervisor's personal culpability for NRC enforcement action under 10 CFR 50.5. Considering some of the significant problems other licensees have experienced involving allegations of discrimination associated with raising safety concerns (especially involving contractor personnel), additional emphasis may be warranted.



As of October 22, 1993, the licensee has not performed any independent audits of the QHL program. In light of the relatively small number of employee concerns documented in the licensee's QHL program, it may be prudent and informative to perform a random survey of licensee and contractor personnel in order to establish employee knowledge of and confidence in the QHL program.

No violations or deviations were identified.

8. Licensee Event Report (LER) Followup (90712)

- a. The inspector performed an in-office review of the following LERs associated with operating events. Based on the information provided in the report, the inspectors concluded that the licensee had met the reporting requirements, had identified root causes, and had taken appropriate corrective actions. The following LERs are closed:

<u>LER NUMBER</u>	<u>DESCRIPTION</u>
Unit 1:	
91-021, Revision 0	Failure of Motor Pinion Keys in Limitorque SMB-3-80 Motor Operators Due to Inadequate Design of Material
92-003, Revision 0	SG Tube Rupture Analysis Deficiency Due to Inadequate Communications with NSSS Supplier
92-006, Revision 1	Diesel Fuel Oil Transfer System Degradation Due to General Corrosion
92-009, Revision 1	Dose Limits Potentially Exceeded from Chemical and Volume Control System Valve Diaphragm Leakage Due to Thermally Induced Degradation
92-012, Revision 1	Entry into Technical Specification 3.0.3 Due to Auxiliary Building Ventilation System Inoperability Resulting from a Single Failure
92-018, Revision 1	Manual Reactor Trip to Prevent Inadvertent Criticality from Inadvertent Cooldown Due to Abnormal Operation of Governor Valves
92-020, Revision 1	Control Room Temperature Limit Potentially Exceeded During Design Basis Accident Conditions
92-021, Revision 1	Technical Specification 6.2.2 Overtime Restriction Violations Due to Inadequate Overtime Control Program
92-022, Revision 1	Indications on Main Feedwater Piping Near the SG Nozzles Due to Thermal Fatigue



- 92-025, Revision 1 Lack of Redundant Over-Current Protection for a Class II Electrical Penetration Circuit Due to Personnel Error
- 92-027, Revision 0 Containment Ventilation Isolation Technical Specification 3.3.2 Not Met Due to Personnel Error
- 92-029, Revision 1 Fuel Handling Building Activities in Noncompliance with Technical Specification 3.9.12 Due to Personnel Error
- 92-030, Revision 0 Technical Specification 3.7.3.1 Not Met When Valves Were Not Sealed Open or Periodically Verified to be Open Due to Personnel Error
- 93-003, Revision 0 Low Temperature Overpressure Setpoint Analysis Nonconservatism Due to Miscommunication
- 93-003, Revision 1 Low Temperature Overpressure Setpoint Analysis Nonconservatism Due to Miscommunication
- 93-004, Revision 0 Non-Conservative Penalty Used for the Heat Flux Hot Channel Factor Multiplier Due to Vendor Oversight
- 93-007, Revision 0 Technical Specification 6.8.4.e Not Met Due to Inadequate Review of Licensing Requirements
- 93-008, Revision 0 Block Valves Installed on the Inlet/Discharge Side of Overpressure Protection Devices Due to Vendor Design Deficiency
- Unit 2:
- 90-011, Revision 0 Technical Specification 3.6.1.3 and 3.0.4 Not Met for Unit 2 Containment Air Lock Due to Programmatic Deficiency
- 92-002, Revision 1 Technical Specification 3.3.2 Action Requirement Not Met When a Steam Flow Channel was Calibrated Using an Incorrect Data Sheet Due to Personnel Error
- 92-002, Revision 2 Technical Specification 3.3.2 Action Requirement Not Met When a Steam Flow Channel was Calibrated Using an Incorrect Data Sheet Due to Personnel Error
- 93-001, Revision 0 Turbine and Reactor Trip During Surveillance Testing Due to Unknown Cause
- 93-001, Revision 1 Turbine and Reactor Trip During Surveillance Testing Due to Unknown Cause





- 93-002, Revision 1 Entry into Technical Specification 3.0.3 Due to Auxiliary Building Ventilation System Inoperability Caused by Inadequate Work Instructions
- 93-004, Revision 1 Technical Specification 3.9.12 Not Met When Fuel Handling Building Ventilation System Was Inoperable During Fuel Movement Due to Programmatic Deficiency
- 93-005, Revision 0 Valve Disc Separated From Its Disc Nut as a Result of a Manufacturing Error
- 93-006, Revision 0 Anchor-Darling Check Valve Bonnet Dowel Pins Not in Compliance With Design Requirements Due to Manufacturing Error

- b. The inspectors reviewed the following LER by on-site review based on the details contained therein:

(Closed) LER 50-275/92-04 Revision 0, "Low Vacuum Turbine Trip and Subsequent Reactor Trip Due to a Programmatic Deficiency"

This LER concerned an Unit 1 turbine trip and subsequent reactor trip which occurred on April 25, 1992, due to low condenser vacuum. The low condenser vacuum and subsequent trip were attributed to a number of causes including a faulty condenser vacuum pump suction line check valve, personnel errors encountered when placing the condenser vacuum pump in service, and inadequate procedural instructions. The inspectors reviewed the licensee's root cause assessment and proposed corrective actions which included:

- Inspection of the condenser vacuum pump suction line check valve for both units, as well as repair, if necessary.
- Preparation and distribution of an Operations Incident Summary of this event in order to sensitize operations personnel to the type of personnel error which contributed to this event.
- Review of all emergency and abnormal operating procedures to identify situations where operators might be dispatched to perform equipment operations without normal procedure issuance (For such cases, the licensee decided to post local instructions).
- Revision of Operating Procedure C-8:III, "Shutdown and Clearing of a Main Feedwater Pump," to add precautions and limitations for possible vacuum transients when removing the pump from service.

The inspectors found the licensee's assessment of root cause and proposed corrective actions to be acceptable. The inspectors verified that the licensee had taken steps to complete its proposed



corrective actions. This LER is closed.

No violations or deviations were identified.

9. Followup of Open Items (92701)

a. (Closed) Open Item 50-275/93-22-04: Adequacy of Flow to Cool the Reactor Core in the Event RHR Valve 8703 Fails to Open in the Hot Leg Recirculation Mode

This item was concerned with the adequacy of flow to cool the reactor core in the event of a single failure of residual heat removal (RHR) Valve 8703 to open during the hot leg recirculation mode following a loss-of-coolant-accident. The inspectors interviewed cognizant licensee personnel and reviewed licensee and Westinghouse documents. The purpose of the hot leg recirculation mode is to prevent excessive boron precipitation onto the fuel rods. If Valve 8703 failed to open, the RHR pump discharge would not have a flow path to the hot legs. In this event, the safety injection (SI) pumps would provide the only flow to the hot legs. Licensee calculations demonstrated that the flow through the hot legs with one safety injection pump running was adequate to satisfy Westinghouse estimates of required flow to prevent boron precipitation. The licensee had revised its emergency operating procedures to realign the RHR pump discharge flow to inject through the cold legs in the event that valve 8703 failed to open during the hot leg recirculation mode. The inspector concluded that the licensee and Westinghouse evaluations of core flow with the SI pumps injecting into the hot legs concurrent with the RHR pumps injecting into the cold legs demonstrated reasonable assurance of adequate core cooling. This followup item is closed.

No violations or deviations were identified.

10. Exit Meeting

An exit meeting was conducted on November 10, 1993, with the licensee representatives identified in Paragraph 1. The inspectors summarized the scope and findings of the inspection as described in this report.

The licensee did not identify as proprietary any of the materials reviewed by or discussed with the inspectors during this inspection.

