

U. S. NUCLEAR REGULATORY COMMISSION

REGION I

Report No. 50-354/88-22

License NPF-57

Licensee: Public Service Electric and Gas Company
P. O. Box 236
Hancocks Bridge, New Jersey 08038

Facility: Hope Creek Generating Station

Dates: July 12, 1988 - August 29, 1988

Inspectors: G. W. Meyer, Senior Resident Inspector

D. K. Allsopp, Resident Inspector

N. F. Dudley, Project Engineer

Approved:

Nel F Dudley FOR
P. D. Swetland, Chief, Projects Section 2B

9-15-88
Date

Inspection Summary:

Inspection 50-354/88-22 on July 12, 1988 - August 29, 1988

Areas Inspected: Resident safety inspection of the following areas: operations, radiological controls, surveillance testing, maintenance, emergency preparedness, security, engineering/technical support, safety assessment/assurance of quality, and Licensee Event Report and open item followup.

Results: An Executive Summary follows and discusses a violation for inadequate equipment control.

EXECUTIVE SUMMARY

Hope Creek Inspection Report 50-354/88-22
July 12, 1988 to August 29, 1988

Operations: A violation was cited for poor control of operating equipment based on multiple personnel errors that resulted in the wrong valve being disabled and its subsequent return to service being overlooked. The incorrect valve alignment had minimal safety significance. The inspectors reviewed the operator response and equipment performance associated with an August 26 turbine trip/reactor scram, a Technical Specification required shutdown initiated on July 19, and recirculation system runbacks on July 28 and August 15. The inspectors found operator response and equipment performance to have been acceptable; however, the inspectors will evaluate corrective actions for reactor vessel level transmitter inaccuracies (ringing) based on the transmitter oscillations experienced during the August 26 reactor scram.

Radiological Control: Two licensee identified violations were reviewed concerning locked high radiation doors found unlocked and omitted sample analyses on a liquid effluent release. Corrective actions were reviewed and found acceptable.

Maintenance/Surveillance: The inspectors found that implementation problems existed in the corrective actions taken for previously identified weaknesses in the control of scaffolding. The initial submittals for NRC Bulletin 85-03 on motor-operated valve settings were reviewed and found acceptable.

Emergency Preparedness: The inspectors reviewed the Unusual Event declarations and notifications for the July 19 and August 26 Unusual Events and concluded that the event declaration on August 26 was slower than it should have been.

Security: The quarterly submittal of the Safeguard Event Log was reviewed and the response actions were found acceptable.

Engineering/Technical Support: The inspector concluded that PSE&G poorly controlled an unresolved engineering issue regarding the delay in the repair or redesign of the remaining three Filtration, Recirculation and Ventilation System (FRVS) recirculation units following the earlier repair of vibration induced cracks in the vanes and ducts of three FRVS units.

Safety Assessment/Assurance of Quality: The violation for employee discrimination was closed out.

Details

1. SUMMARY OF OPERATIONS

The unit entered this report period at full power and continued power operations until a test equipment malfunction caused a turbine trip and reactor scram on August 26. The reactor was restarted and was on line on August 29. In addition to the reactor scram, on July 19 a shutdown was initiated from full power due to both trains of the main steam isolation valve (MSIV) sealing system being inoperable. The shutdown was terminated two hours later. Further, intermediate runbacks of the recirculation system occurred on July 28 due to a personnel error during testing and on August 15 due to a pressure switch failure in a reactor feed pump oil system.

On August 29, Hope Creek plant management was changed, in that Stanley LaBruna, previously General Manager - Hope Creek Operations, was promoted to Vice President - Nuclear Operations, and Joseph Hagan, previously Maintenance Manager, was promoted to General Manager - Hope Creek Operations.

2. OPERATIONS (71707, 71710)

2.1 Inspection Activities

On a daily basis throughout the report period, the inspectors verified that the facility was operated safely and in conformance with regulatory requirements. Public Service Electric and Gas (PSE&G) Company management control was evaluated by direct observation of activities, tours of the facility, interviews and discussions with personnel, independent verification of safety system status and Limiting Conditions for Operation, and review of facility records. These inspection activities were conducted in accordance with NRC inspection procedures 71707 and 71710 and included weekend inspection on August 14 and deep backshift inspections on August 21 and 22.

2.2 Inspection Findings and Significant Plant Events

- A. On August 26 at 6:26 p.m., a reactor scram from full power occurred when the main turbine tripped during functional testing of the turbine thrust bearing wear detector (TBWD). Following the scram, two safety relief valves (SRVs) opened to control the resulting reactor pressure increase. Also, due to tripping of the feed pumps, Reactor Core Isolation Cooling (RCIC) and High Pressure Coolant Injection (HPCI) injected water into the vessel to restore level. The HPCI injection was momentary and was secured by an operator prior to reaching full flow. An Unusual Event was declared at 7:15 p.m. and terminated at 7:16 p.m. due to the HPCI injection.

PSE&G determined the root cause of the reactor scram to be equipment failure in the trip mechanism. The TBWD is used weekly to obtain thrust bearing measurements. However, during the August 26 test a mechanical linkage, which normally prevents an actual turbine trip, malfunctioned and resulted in the trip. Later evaluation determined that the mechanical linkage malfunction occurred due to a loose set screw on the shaft of a limit switch. The set screw was correctly repositioned.

During the evaluation of the scram PSE&G determined that one of the two SRVs designed to respond to the pressure increase by opening electrically in advance of its mechanical actuation, i.e., a low-low set SRV, did not open. Further PSE&G review found that a component failure had occurred in the electrical opening circuit which prevented the SRV from receiving a signal to open. The failed component was replaced.

Also, PSE&G found that the feed pump trips occurred due to a spurious indication of vessel level 8 because of level transmitter "ringing", an indicated rapid amplitude oscillation in response to the pressure surge. The transmitter ringing indication was lower in amplitude than the ringing during previous scrams. Since corrective actions had been taken to control previous ringing, PSE&G is further evaluating the ringing indication to assess the previous corrective actions. The inspectors will review future licensee corrective actions.

Further, PSE&G found that during the pressure transient, SRV M appeared to have opened below its setpoint, because SRV M's setpoint is $1108 \pm 11, -11$ psi and the pressure surge peaked at 1088 psi. A safety evaluation concluded that given allowable instrument deviations, it was possible for SRV M to be working properly within its allowable setpoint tolerance. However, the effects of a potentially lower setpoint on SRV M were evaluated and found to be acceptable.

The inspectors reviewed the PSE&G post-trip review, including Safety Evaluation 88-105 and the parameter traces from the GETARS computer. The review was thorough. Identified equipment problems were being resolved, and the plant was operated in an acceptable manner.

- B. On July 19 Hope Creek declared an Unusual Event and commenced a reactor shutdown required by Technical Specification 3.0.3 due to both Main Steam Isolation Valve (MSIV) Sealing Systems being inoperable. The A MSIV Sealing System was out of service for scheduled maintenance on the associated Primary Containment Instrument Gas (PCIG) compressor, and the B MSIV Sealing System

was declared inoperable when a pressure transmitter failed a channel check. The Unusual Event and power descent were terminated two hours later when a new pressure transmitter was installed and successfully tested. The reactor had decreased to 80% power and was returned to 100% power. (LER 88-17)

- C. On August 15 routine valve stroke testing revealed that inadequate tagging control had occurred during a valve tagging evolution begun on May 27, 1988, which resulted in the inadvertent removal of power from the torus supply valve in the Containment Prepurge Cleanup System (CPCS). The inspector concluded that the personnel errors during this evolution represented a violation of plant system alignment control requirements (354/88-22-01).

Specifically, containment penetration P-23 (drywell purge exhaust) failed its May 27 leak test, and Technical Specification 3.6.3 action statement required that another valve be deactivated in the closed position or a blank flange be installed to isolate P23. PSE&G choose to do both in parallel, and the blank flange was installed within the four hour limit. However, in attempting to remove the relay for valve GS-HV-4952, the drywell purge isolation valve, the adjacent relay for valve GS-HV-4958, the CPCS torus supply valve, was erroneously removed. This error should have been corrected when the penetration was returned to service on May 30, but due to another personnel error, no effort was made to reinstall the relay. These personnel errors occurred despite existing procedural guidance and are in violation of the requirement in 10 CFR 50, Appendix B, Criterion XIV, that measures be established for indicating the operating status of components to prevent inadvertent operation.

The safety significance of the above errors was minimal because the blank flange met the penetration isolation action statement, and the deactivated CPCS torus supply valve was closed and is used only prior to deenergizing primary containment.

- D. During the inspection period two intermediate runbacks occurred in the reactor recirculation system, which resulted from a testing error and from a component failure. The inspector reviewed the response of the equipment and the operators' actions and concluded that these had been acceptable.

On July 28, a partial C channel LOCA actuation and an intermediate recirculation runback occurred due to an improperly positioned mode switch on an ECCS logic tester during an I&C surveillance test. The partial LOCA actuation consisted of a start signal to the C diesel generator, C core spray pump, and the C diesel generator load sequencer. The C diesel load sequencer de-energized the C reactor feed pump's main lube oil pump which tripped the C reactor feed pump before the auxiliary

tube oil pump picked up. The ensuing level oscillation reduced reactor level to below 30 inches which caused the runback, thereby reducing reactor power to 70%. The ECCS initiation logic was reset, and the unit returned to 100% power the same day. PSE&G plans to review the transition from the main to the auxiliary oil pump for possible improvement.

On August 15, an intermediate recirculation runback occurred when a pressure switch failed in the control oil for the C reactor feed pump. This failed switch caused a spurious start of the auxiliary oil pump and the resulting pressure spike within the control oil system caused the feed pump turbine control valves to partially close. This closing resulted in an indication of a feed pump trip and a minor reactor level transient (greater than 5 inches below normal), which automatically ran back the recirculation system and resulted in reactor power being reduced to 70%. Power was returned to 100% shortly afterward. Later, the failed pressure switch was replaced.

- E. The inspectors reviewed the impact of the unusually hot weather on the plant and concluded that there was no adverse impact on safety. Technical Specifications 3.7.1.3 permits continued reactor operation when Delaware River (ultimate heat sink) water temperature is 90.5 degrees F or lower. During the sustained hot weather, river temperatures reached 87 degrees F for portions of days. While this elevated temperature and the higher ambient air temperatures did reduce equipment efficiencies, including the cooling tower, the plant operation remained well within the design basis.

3. RADIOLOGICAL CONTROLS (71709)

3.1 Inspection Activities

PSE&G's compliance with the radiological protection program was verified on a periodic basis. These inspection activities were conducted in accordance with NRC inspection procedure 71709.

3.2 Inspection Findings and Review of Events

- A. On July 28, a radiation protection technician identified two unlocked high radiation area doors while performing a routine shiftly check of locked high radiation area doors. For both doors the technician responded correctly by standing guard at the door until the door could be properly locked by shift personnel. A review of the key control log indicated that these two doors had been opened a shift and a half earlier by an equipment operator to perform a weekly observation of the enclosed high radiation areas. Most high radiation area door locks (regardless of which direction you rotate the key) will

allow entry and automatically relock when shut. However, depending on the direction of key rotation, some door locks provide an additional characteristic which disables the automatic relock feature and leaves the door unlocked. To enable the automatic relock feature on this type of door, the key must be reinserted and rotated in the opposite direction. The two doors which were found unlocked were of this latter lock design. Station Administrative Procedure SA-AP.ZZ-024 allows trained equipment operators to monitor themselves to ensure the high radiation area doors are locked after their exit. After reviewing the event, the Radiological Protection Department implemented the following corrective actions:

- A review of dose summaries by self-reading pocket dosimeter for the day the high radiation doors were unlocked indicated no abnormalities.
- The particular equipment operator who failed to lock the two high radiation door had his self-monitoring privileges rescinded pending additional training.
- A double independent verification of locked status for any high radiation area doors which are unlocked was implemented with required documentation in the Radiation Protection Shift Log.
- The individual performing the shiftly check of high radiation area doors will be personally accountable for performance and documentation of this task.

The resident inspector reviewed the event and the high radiation area key control system, and found the corrective actions acceptable. The failure to maintain these two high radiation area doors locked is a licensee identified violation (354/88-22-02) of Technical Specification 6.12.2, which is not being cited based upon meeting the criteria of 10 CFR 2 Appendix C. The inspectors will continue to review the adequacy of locked high radiation door control in future inspections. (LER 88-20)

- B. On July 13, the Chemistry Department violated the Technical Specifications, in that radioactive liquid waste was released to the river without a required sample (input to the monthly composite sample) having been obtained. The composite sample is made up of individual samples taken on each discharge to the river with the sample volume proportional to the liquid release.

The discharge on July 13 was originally requested and sampled as a discharge to the condensate storage tank (CST). However, when equipment failure prevented the Chemistry Department from

completing all required analyses, the discharge was changed and released to the river. The composite sample, which is not required on a discharge to the CST, was not obtained prior to the river release. This licensee identified violation is not being cited based on meeting the criteria of 10 CFR 2 Appendix C (354/88-22-03). As corrective action, technician training was conducted and a change to the radioactive liquid release request form has been initiated, which requires a sufficient sample size to perform all analyses regardless of the ultimate release destination. The inspector concluded that the corrective actions for the missed sample were appropriate and acceptable.

- C. During a semiannual radiological sealed source inventory conducted by PSE&G, some difficulty was encountered locating two Intermediate Range Monitors (IRMs). Eventually, PSE&G determined that the IRMs were stored in locked, controlled areas and were indicated on the radiological source accountability record. One problem identified during the audit was that several technicians conducting the audit were not clear as to the exact description of the IRM detectors. The Radiation Protection Department also identified some weaknesses in the control of IRMs and Source Range Monitors (SRMs) and initiated the following immediate corrective actions:

- All new IRMs/SRMs currently stored in the 137ⁱ Turbine Building were banded together in the original shipping crates, locked and labeled with serial numbers.
- All IRMs currently stored in the gamma scan room were placed inside a tool box, locked and labeled with serial numbers.
- A Work Order was written to install a locking cage to provide a service location for storage of new IRMs/SRMs.

PSE&G plans to implement the following corrective actions by October 1, 1988:

- Irradiated IRMs located in the gamma scan room will be shipped as radwaste.
- On-the-job training will be provided to all Radiation Protection personnel on identification, control, and storage of IRMs/SRMs.
- The source accountability procedure will be revised to include specific steps in dispositioning of used, irradiated IRMs/SRMs.

- In addition, future contractor training courses will include training on control of IRMs/SRMs.

The inspector reviewed the Radiation Protection Department's accountability procedures, corrective actions, and several radioactive storage areas. The inspector concluded the corrective actions were adequate and acceptable.

- D. The inspector reviewed the testing associated with the solid radiological waste handling equipment, including a tour of the asphalt processing rooms. The inspector observed the tests of a steel drum of processed asphalt, which met the test acceptance criteria, having no free water and less than 15% shrinkage.
- E. (Closed) Inspector Follow Item d5-44-11; Various ALARA and human factor concerns in the radwaste control room and the resin regeneration and transfer room (RRTR). Since this item was opened, Hope Creek has altered its resin management philosophy, which has negated the inspector's original concerns. Hope Creek now discards rather than regenerating its deep bed polisher resins. Transfer of polisher resins via the resin transfer line, which would have normally occurred for regeneration on a daily basis, now occurs once per month for resin transfer and storage. This drastically reduces the radiation levels on the specified pipe and valve. The inspector verified that the RRTR general area and contact readings on the valve were both approximately 1 millirem/hour. In addition, all resin transfer (which would increase radiation levels) are performed remotely and require no operator entry into the RRTR. The valve specified in the open item is not operated during normal operation, and no major maintenance on this valve is anticipated. The inspector evaluated the dose rates near the specified pipe and valve and found them to be acceptable.

The inspector verified that the radwaste control room had proper lighting and noise control, and that mislabelling of the liquid flow paths had been corrected. This item is closed.

4. SURVEILLANCE TESTING (61726)

4.1 Inspection Activity

During this inspection period the inspector performed detailed technical procedure reviews, witnessed in-progress surveillance testing, and reviewed completed surveillance packages. The inspector verified that the surveillance tests were performed in accordance with Technical Specifications, approved procedures, and NRC

regulations. These inspection activities were conducted in accordance with NRC inspection procedure 61726.

The following surveillance tests were reviewed, with portions witnessed by the inspector:

- IC-DC.ZZ-175 D FRVS Flow Transducer Calibration
- IC-DC.ZZ-30 Service Water Strainer Differential Pressure Calibration
- M9-IEP-04C Hardness Test of Flanges with Equotip Tester
- OP-IS.BC-102 RHR Subsystem B Valves Inservice Test
- OP-ST.BC-001 RHR System Piping and Flow Path Verification Monthly
- OP-IS.3C-003 B RHR BP202 Inservice Test
- OP-IS.BC-004 D RHR DP202 Inservice Test
- SA-AP.ZZ-051 Leakage Measurement Data Sheet - Water or Steam Filled Piping

The surveillance activities inspected were effective with respect to meeting the safety objectives of the testing program.

4.2 Inspection Findings

On July 28, a partial C channel LOCA actuation and reactor runback occurred due to an improperly positioned mode switch on an ECCS logic tester during an I&C surveillance test. The test produced an actual initiation signal when the ECCS logic tester was electrically connected with its mode position key switch improperly positioned. The key slot on the mode position key switch indicated that it was properly positioned; however, the internal key tumbler was detached and not properly positioned. Corrective action consisted of replacing the keylock switches with an easily identifiable position switch, reviewing the incident with I&C technicians, and inspecting other test equipment for similar problems. The inspector had no further questions on this event. (LER 88-19)

5. MAINTENANCE (62703, 92701)

5.1 Inspection Activity

During this inspection period the inspector observed selected maintenance activities on safety related equipment to ascertain that these activities were conducted in accordance with approved procedures, Technical Specifications, and appropriate industrial codes and standards. These inspections were conducted in accordance with NRC inspection procedure 62703.

Portions of the following activities were observed by the inspector:

| <u>Work Order</u> | <u>Procedure</u> | <u>Description</u> |
|------------------------|-------------------------------|---|
| 8807022066 | MD-CM.EP-003 | Overhaul/repair service water traveling screen |
| 880729075 | 4HM-0397 | Repair of D FRVS recirculation duct and vanes |
| A 0123002 | MD-PM.ED-001 | Repair of RACS heat exchanger leak |
| 880816056 | ---- | Inspection of C FRVS recirculation duct and vanes |
| 910413018 910414011 | Work Standard No. HCVFORED | Sodium pilot valve replacements for hydraulic control units 46-23, 46-39, and 22-15 |

The maintenance activities inspected were effective with respect to meeting the safety objectives of the maintenance program.

5.2 Inspection Findings

- A. (Open) The inspector reviewed Unresolved Item (354/87-08-06); inadequate review of the implementation of the scaffolding program. This item had been Unresolved pending PSE&G review of the scaffolding procedure. On June 8, 1988, PSE&G issued Revision 5 to procedure SA-AP.ZZ-023(Q), Scaffolding Program, which includes the following requirements.
- The Work Control Coordination Supervisor (WCCS) maintains the Scaffold Control Log for all scaffolds in areas which contain safety-related equipment.
 - Scaffolds which do not meet the requirements on the Inspection Checklist must be approved by completion of a Scaffold Variation Request.

- Scaffolds not being used on a daily basis should be inspected monthly and/or before use.

The inspector reviewed the implementation of the Scaffold Program by inspecting the scaffolds on the 54' level of the reactor building, all of which are in areas containing safety related equipment. The inspector compared the Scaffold Tag numbers to the tag numbers in the Scaffold Log. As a result of this review the inspector found that:

- The Scaffold Tags hung on the scaffolds did not correspond to the numbers in the Scaffold Control Log and some tag numbers in the Scaffold Control Log had been used twice.
- The scaffold in room 4113 did not meet the requirement of being at least 1 1/2" from conduit 12ARVB55, and a Scaffold Variation Request had not been completed.
- Inspection of the scaffolds in room 4107 and 4109 were not completed prior to the scaffold being used on August 10, 1988. The last inspections were documented as being performed on March 26, 1988.

Following discussions with the WCCS the inspector concluded that implementation problems remain in the scaffold program. PSE&G immediately reviewed and rewrote the Scaffold Control Log to reflect the correct log control numbers. The shift logs are in the process of being revised to ensure the Operations Department 48 hour inspections are properly conducted. Additional guidance is scheduled to be disseminated and maintained in the front of the scaffold log to provide specific guidance for conducting the scaffold program. The Operations Department is reviewing other secondary logs (non-control room logs) to look for areas of improvement. This item remains open and will be routinely monitored by the resident inspectors.

- B. (Open) Bulletin 85-03 (85-BU-03); As requested by action item e. of Bulletin 85-03, Motor-Operated Valve Common Mode Failures During Plant Transients Due to Improper Switch Settings, PSE&G identified the selected safety-related valves, the valves' maximum differential pressures and the program to assure valve operability in their letter dated May 27, 1986. NRC review of this response indicated the need for additional information, which was subsequently requested in a Region I letter dated April 7, 1988.

NRC review of PSE&G's May 23, 1988, response to this request for additional information concluded that the selection of the applicable safety-related valves to be addressed and the valves'

maximum differential pressures met the requirements of the bulletin and that the program to assure valve operability requested by action item e. of the bulletin was acceptable. This action completes the review of the initial bulletin response. However, the inspections to verify proper implementation of this program and the review of the final response required by action item f. of the bulletin will be addressed in future inspection reports. This bulletin remains open.

6. EMERGENCY PREPAREDNESS

- A. The inspector reviewed the notification records for the July 19 Unusual Event (UE) concerning a Technical Specification required shutdown. The inspector concluded that the declaration of the UE and its notification were timely and acceptable.
- B. The inspector reviewed the notification records for the August 26 Unusual Event (UE) concerning the HPCI injection following a reactor scram. In this event, the UE was declared 48 minutes after the HPCI injection, and the notifications were made subsequently. This 48 minute delay appeared longer than necessary or desirable to the inspector. The Operations Manager agreed that in this event, the declaration could have been made sooner. However, he noted that during and following such events the Senior Nuclear Shift Supervisors (Seniors) are responsible for numerous significant tasks, including ensuring plant safety, coordinating his crew's response actions, and organizing the notification effort. Accordingly, he stated that the importance of timely declarations of emergency classifications would be reemphasized to the Seniors. The inspector will continue to monitor operator performance in this area during subsequent routine inspections.

7. SECURITY (71881)

7.1 Inspection Activity

PSE&G's compliance with the security program was verified on a periodic basis, including the adequacy of staffing, entry control, alarm stations, and physical boundaries. These inspection activities were conducted in accordance with NRC inspection procedure 71881.

7.2 Inspection Findings

On August , the inspector reviewed the quarterly submittal of the Safeguards Event Log with the Nuclear Security Manager and his

subordinate supervisors to assess the nature of the events and the appropriateness of the security force responses. The inspector concluded that the responses and any associated corrective actions were acceptable.

8. ENGINEERING/TECHNICAL SUPPORT (37700)

- A. PSE&G found that three of the six Filtration, Recirculation, and Ventilation System (FRVS) recirculation units had vibration induced fatigue cracks in the internal vanes and surrounding duct wall in the transition duct between the supply fans and the downstream filters. The inspector reviewed Design Change Package 4HM-0397, which repaired the cracked vanes and ducts and stiffened the vanes, and observed the inspection and repair of the three FRVS units. The inspector found the design change and its implementation acceptable.

However, it became apparent to the inspector that three FRVS units had previously been repaired for similar vibration induced cracks beginning in December 1987. The remaining three FRVS units had been verified to be crack free during this period. In discussions with plant engineering management, the inspector was informed that following the repairs of the initial three units, further repairs were held in abeyance pending engineering evaluations of an improved design. However, the work on the improved design was postponed based on higher priority work. The inspector concluded that the continued operation of the three unrepaired FRVS with the high potential for degraded equipment conditions appeared to represent poor management of an unresolved engineering issue. NRC review of other unresolved engineering issues to better assess their priorities will be performed. (LER 88-21)

- B. The inspector selected two temporary modifications (88-033 and -034) and reviewed the safety evaluations. The inspector found the evaluations to be accurate and acceptable. The inspector reviewed the implementation of these modifications in the field and found them to be acceptable.

9. SAFETY ASSESSMENT/QUALITY VERIFICATION

- A. (Closed) The inspector reviewed corrective actions for the July 14, 1988 Notice of Violation (354/88-20-01) regarding contractor employee discrimination. The Department of Labor had found that a PSE&G contractor had discriminated against an employee, in that he was demoted from a supervisory position for raising safety concerns and holding up deficient test packages. As corrective action,

PSE&G has reemphasized to its contractor the importance of complying with the requirements of 10 CFR 50.7. PSE&G also strengthened its contractual requirements with all contractors by specifically including Section 210 and 10 CFR 50.7 in contracts, and requiring contractors to educate their employees as to their right to raise safety issues free from discrimination.

The inspector reviewed the letter PSE&G sent to its contractors and concluded that their corrective actions were appropriate and acceptable. This closes out action on violation 354/88-20-01.

10. LICENSEE EVENT REPORT (LER) AND OPEN ITEM FOLLOWUP (92700)

- A. PSE&G submitted the following event reports and periodic reports, which were reviewed for accuracy and timely submission. The asterisked (*) items identify reports which involve licensee identified Technical Specification violations which are not being closed based upon meeting the criteria of 10 CFR 2 Appendix C.

Monthly Operating Report for July 1988

- LER 88-12-01 Manual Scram Following Loss of Circulating Water Pumps Due to Malfunction of Circulating Water System Multiplexer - Equipment Failure; discussed in Section 2.2a of Inspection Report 50-354/88-18.
- LER 88-13-01 Automatic Reactor Scram on Low Reactor Water Level Signal - Personnel Error; discussed in Sections 2.2 of Inspection Report (IR) 50-354/88-16 and 5.C of IR 50-354/88-18.
- LER 88-16-00 Unanticipated PCIS Actuations and CREF Initiation caused by Momentary Power Losses - Equipment Failure.
- LER 88-17-00 Unusual Event Declared Due To Inoperability of Both MSIV Sealing Systems - Equipment Failure; discussed in Sections 2.2.B and 6.A of this report.
- LER 88-18-00 Unanticipated Isolation of RWCU (ESF Isolation) - Personnel Error.
- LER 88-19-00 Unintended ECCS Actuation (ESF Actuation) and Load Reduction - Test Equipment Design Deficiency (Human Factors) and Procedural Deficiency; discussed in Sections 2.2.D and 4.2 of this report.

- * LER 88-20-00 Access Doors to High-Rad Areas Unlocked - Personnel Errors; discussed in Section 3.2.A of this report.
 - LER 88-21-00 Discovery of Cracking in a FRVS Recirculation Fan Ductwork With a Second FRVS Fan Out of Service - Design Deficiency; discussed in Section 8.A of this report.
- B. Two LERs which occurred during this inspection period involved equipment failure, but PSE&G did not provide equipment manufacturer or model number. This information is required by 10 CFR 50.73 to inform others in the industry of potential generic problems. This deficiency was discussed with Hope Creek management and they agreed to correct this oversight.
- C. The following previous inspection items were followed up during this inspection and are tabulated below for cross reference purposes.
- | | | |
|--------|----------|---------------|
| Closed | 85-44-11 | Section 3.2.E |
| Open | 85-8U-03 | Section 5.2.B |
| Open | 87-08-06 | Section 5.2.A |
| Closed | 88-20-01 | Section 9.A |

11. EXIT INTERVIEW (30703)

The inspectors met with Mr. J. Hagan and other PSE&G personnel periodically and at the end of the inspection report period to summarize the scope and findings of their inspection activities.

Based on Region I review and discussions with PSE&G, it was determined that this report does not contain information subject to 10 CFR 2 restrictions.