U. S. NUCLEAR REGULATORY COMMISSION OFFICE OF INSPECTION AND ENFORCEMENT

REGION I

| | 50-272/81-01 | |
|-----------------|---|------------|
| Report Nos | 50-311/81-01 | |
| - · · · · · | 50-272 | |
| Docket Nos. | 50-311 | |
| | DPR-70 | |
| License Nos | DPR-75 | |
| Licensee: | Public Service Electric and Gas Company | |
| | 80 Park Plaza - 15A | - |
| | Newark, New Jersey 07101 | - |
| Facility Name: | Salem Nuclear Generating Station - Units 1 and 2 | - |
| Inspection At: | Hancocks Bridge, New Jersey | - , |
| Inspection Cond | lucted (January 1 - January 31, 1981 | - , , |
| Inspectors: 1 | Doff Comble | 2/18/81 |
| . L | J Norrholm, Senior Resident Inspector | ' date |
| 2 | Villiam M. Stell p. | 2/18/81 |
| | I. M. Hill, Jr., Resident Reactor Inspector | date |
| Approved By: | Edward IT. Theeman / for | 3/6/81 |
| F | R. Keimig, Chief, Reactor Projects Section No. 1, RO&NS Branch | date |
| | - | |

50272-810119

50272-810126 50272-810129

50272-810130

Inspection Summary:

81 06 05 0 288

Inspections on January 1 - January 31, 1981 (Combined Report Numbers 50-272/81-01 and 50-311/81-01)

Unit 1 Areas Inspected: Routine inspections by the resident inspectors of plant operations including tours of the facility; conformance with technical specifications and operating parameters; log and record review; reviews of licensee events; IE Bulletins and Circulars; and followup on previous inspection items. The inspection involved 79 inspector-hours by the resident inspector. Results: Three items of noncompliance were identified (Failure to conduct postmaintenance position verification of ECCS valves (paragraph 10); Failure to acknowledge entry into an Action Statement (paragraph 6b); Fajlure to post documents per 10 CFR 19.11 (paragraph 10c)).

<u>Unit 2 Areas Inspected</u>: Routine inspection by the resident inspectors of plant startup testing including tours of the facility; license requirements and technical specifications; IE Bulletins and Circulars; followup on licensee events; and, followup on previous inspection items. The inspection involved 43 inspector-hours by the resident NRC inspectors.

<u>Results</u>: One item of noncompliance was identified (Failure to acknowledge entry into an Action Statement (paragraph 6b)).

DETAILS

1. Persons Contacted

- J. Driscoll, Chief Engineer
- L. Fry, Station Operating Engineer
- J. Gallagher, Assistant Maintenance Engineer
- S. LaBruna, Maintenance Engineer
- H. Midura, Manager Salem Generating Station
- L. Miller, Station Performance Engineer
- J. Nichols, Reactor Engineer
- F. Schnarr, Station Operating Engineer
- R. Silverio, Assistant to the Manager
- J. Stillman, Station QA Engineer
- R. Swetnam, Radiation Protection Engineer

The inspector also interviewed and talked with other licensee personnel during the course of the inspections including management, clerical, maintenance, operations, performance and quality assurance personnel.

- 2. Status of Previous Inspection Items
 - (Closed) Unresolved Item (272/80-07-07) Evaluation and enumeration of reactor trip cycles. The licensee has determined that a record of all reactor trips, regardless of power level, will be maintained. The inspector reviewed a new section of the Operations Directive Manual which establishes a Cyclic and Transient Data File to be maintained by the Operating Department staff. Additionally, Special Directive No. 8, dated January 14, 1981, directs operators to record certain information in the operating logs for defined transient events, including trips from any power. The data file for reactor trips, including all trips to date, is being completed. The inspector had no further questions on this item.
 - (Closed) Follow Item (272/80-23-04) Review of system leak rate testing for systems outside containment which contact the reactor coolant system. System visual leak rate tests were conducted prior to unit startup. The inspector reviewed the results of testing conducted in accordance with Maintenance Procedure M 17 F, Visual Leak Examination Procedure. The following system leakage values were recorded: Containment Spray - none, CVCS - 120 drops/min, RHR - 4 drops/min, Sampling - 65 drops/min, Safety Injection -73 drops/min, Liquid Waste - none, Waste Gas - 12,234.53 SCCM. Work Orders were issued to correct identified leak points. The inspector had no further questions on this item.
 - (Closed) Unresolved Item (272/80-20-04) Storm drain sampling schedule. The inspector reviewed procedure PD-3.8.008, NPDES Samples, Revision 0, dated January 14, 1981, which includes a monthly sample of yard drains for activity. Also reviewed were the results of the January 1981 sample which indicated no detectable activity in the drains. The inspector had no further questions relative to IE Bulletin 80-10.

(Closed)

Noncompliance (272/80-06-01) Failure to maintain status of valve 14AF10 found closed during Mode 1 operation. The licensee's response to this item is included in correspondence to NRC Region I dated May 1, June 5, and July 2, 1980. The inspector verified that the following actions have been taken; changeout of locks and use of chains on locked valves, control of valve lock keys at the Shift Supervisor, verification of valve lineups for safety related systems, and explicit directions to operators regarding the performance of valve lineups. The confirmation included a review of the following: selected post-test valve lineups and verifications, status of locked valves in Unit 1, Information Letter 80/60 Performance of Valve Lineups, dated May 16, 1980, and Operating Memorandum-19, Independent Valve Lineups and Verifications, dated January 21, 1981. The inspector had no further questions relative to corrective or preventive measures taken with respect to this item.

- (Closed) Unresolved Item (272/79-14-02) Accuracy of ISI data. The inspector reviewed a copy of the revised ISI Report to confirm that an appropriate procedure was referenced for the 12 MS 167 upper set studs. The report now refers to UT procedure 600-14/10. The inspector had no further questions on this item. Further review is documented in NRC Inspection Report 50-272/80-24.
- (Closed) Follow Item (272/80-32-02) Identification of sinks in controlled access area. The inspector confirmed that sources of demineralized water in controlled access area laboratories had been identified to caution personnel that the water was not to be used for consumption. This completes the review of IE Circular 80-14.
- (Closed) Unresolved Item (272/80-13-04) Complete design change to provide automatic switchover for meteorological tower power supply. By review of documentation and interviews with personnel, the inspector confirmed that DCR 1 EC-790 had been completed, providing the automatic switchover capability stated in LER 80-06. The inspector had no further questions on this item.
- (Closed) Noncompliance (311/80-09-01) Failure to maintain no more than one operable safety injection pump with RCS temperature less than 312^{OF}. The inspector reviewed procedure SP(0) 4.3.2.1.3, ESF-Response Time Testing, Revision 0, dated March 1979, with on-the-spot change P-7, dated July 2, 1980. The procedure has been modified as stated in the licensee's response to preclude simultaneous operability of two pumps under cold plant conditions. The inspector had no further questions on this item.
- (Closed) Unresolved Item (311/80-16-02) Replace PORV limit switches with qualified substitutes. By inspection of PORV's 2PR1 and 2PR2 and review of design change documentation (DCP 2 EC-0818), the inspector confirmed that NAMCO type EA 180-11302 limit switches have been installed on the valves as specified in the design package to provide qualified switches. The licensee's response to IE Bulletin 79-01B asserts that these are qualified limit switches.

- (Closed) Unresolved Item (272/79-25-01) Procedure for fire door fouling with cable and hose. The inspector reviewed Fire Fighting and Organization Manual, Revision 5, dated September 15, 1980. Section 3.2.7 now includes a statement that fire doors must remain operable at all times. Any door prevented from closing must be attended by a fire watch. The licensee has instituted a program of placing signs on each fire door requiring notification of shift supervision in the event that a door must be blocked open.
- (Closed) Follow Item (272/80-32-03) Review of natural circulation cooldown procedure. The inspector reviewed emergency instruction EI-I-4.9, Blackout, Revision 10, dated September 19, 1980. Appendix I to this procedure details steps for cooldown in a natural circulation mode. The appendix addresses the possibility of voiding and provides cooldown and depressurization limits of 25⁰/hr and 750 psi/hr, respectively. A similar procedure is provided in the loss of component cooling emergency instruction. The inspector had no further questions on this item.
- (Open) Follow Item (272/80-20-05) Annual requalification training. The inspector observed a presentation of the annual requalification training presented to licensee employees. The previous items regarding instructor familiarity, station emergencies, and respiratory protection were acceptable. The instructor mentioned the Radiation Exposure Permit (REP) but did not provide details regarding its use. Some individual exposure limits listed in 10 CFR 20 were not presented in the review. Various areas such as contaminated area, restricted area, radiation area, and high radiation area were not clearly explained nor demonstrated with specific site illustrations. The licensee stated that the lesson plan was being rewritten, and these items would be included in the changes. This item remains open and will be reviewed during a subsequent inspection.

SITE

3. Shift Logs and Operating Records

- a. The inspector reviewed the following plant procedures to determine the licensee established requirements in this area in preparation for a review of selected logs and records.
 - -- AP-5, Operating Practices, Revision 10, May 21, 1980;
 - -- AP-6, Operational Incidents, Revision 6, February 22, 1979;
 - -- AP-13, Control of Lifted Leads and Jumpers, Revision 4, February 11, 1980;
 - -- Operations Directive Manual; and,
 - -- AP-15, Safety Tagging Program, Revision 1, November 21, 1980.

The inspector had no questions in this area.

b. Shift logs and operating records were reviewed to verify that:

- -- Control room log sheet entries are filled out and initialled;
- -- Auxiliary log sheets are filled out and initialled;
- -- Log entries involving abnormal conditions provide sufficient detail to communicate equipment status, lockout status, correction and restoration;
- -- Log book reviews are being conducted by the staff;
- Operating orders do not conflict with Technical Specification requirements;
- Incident reports detail no violation of Technical Specification LCO or reporting requirement; and,
- -- Logs and records were maintained in accordance with Technical Specifications and the procedures in 3.a above.
- c. The review included the following plant shift logs and operating records as indicated and discussed with licensee personnel:
 - -- Log No. 1 Control Room Daily Log, January 1-31, 1981
 - -- Log No. 6 Primary Plant Log, January 1-31, 1981
 - -- Log No. 7 Secondary Plant Log, January 1-31, 1981
 - -- Log No. 8 Unavailable Equipment Status Log, January 1-31, 1981
 - -- Night Orders, December 27, 1980 January 16, 1981
 - -- Lifted Lead and Jumper Log All active
 - -- Nonconformance Reports for December 1980
 - -- Incident Reports 80-363, 373, 389, 391-408, 411-413; 81-6, 9, 16, 17, 19-21

The inspector had no questions relative to logs reviewed during this inspection period.

4. Plant Tour

- a. During the course of the inspections, the inspector made observations and conducted multiple tours of plant areas, including the following;
 - (1) Control Room (daily)
 - (2) Relay Rooms
 - (3) Auxiliary Building
 - (4) Vital Switchgear Rooms
 - (5) Turbine Building
 - (6) Yard Areas
 - (7) Radwaste Building
 - (8) Penetration Areas
 - (9) Control Point
 - (10) Site Perimeter
 - (11) Fuel Handling Building
 - (12) Containment
- b. The following determinations were made:
 - -- Monitoring instrumentation: The inspector verified that selected instruments were functional and demonstrated parameters within Technical Specification limits.
 - -- Valve positions. The inspector verified that selected valves were in the position or condition required by Technical Specifications for the applicable plant mode. This verification included control board indication and field observation of valve position (Charging/ Safety Injection, Auxiliary Feedwater, and Containment Spray Systems).
 - -- Radiation Controls. The inspector verified by observation that control point procedures and posting requirements were being followed.
 - -- Plant housekeeping conditions. Observations relative to plant housekeeping identified no unsatisfactory conditions.
 - -- Fluid leaks. No fluid leaks were observed which had not been identified by station personnel and for which corrective action had not been initiated, as necessary.

- Piping vibration. No excessive piping vibrations were observed and no adverse conditions were noted.
- Selected pipe hangers and seismic restraints were observed and no adverse conditions were noted.
- Equipment tagging. The inspector selected plant components for which valid tagging requests were in effect and verified that the tags were in place and the equipment in the condition specified.
- -- Control room annunciators. Selected lit annunciators were discussed with control room operators to verify that the reasons for them were understood and corrective action, if required, was being taken.
- By frequent observation through the inspection, the inspector verified that control room manning requirements of 10 CFR 50.54 (k) and the Technical Specifications were being met. In addition, the inspector observed shift turnovers to verify that continuity of system status was maintained. The inspector periodically questioned shift personnel relative to their awareness of plant conditions and knowledge of emergency procedures.
- Releases. On a sampling basis, the inspector verified that appropriate documentation, sampling, authorization, and monitoring instrumentation, were provided for effluent releases.
- Technical Specifications. Through log review and direct observations during tours, the inspector verified compliance with selected Technical Specification Limiting Conditions for Operation. The following parameters were sampled frequently: RWST level, BAST level and temperature, containment temperature, boration flow path, shutdown margin, offsite power. In addition, the inspector conducted periodic visual checks of protective instrumentation and inspection of electrical switchboards to confirm availability of safeguards equipment.
- -- Security. During the course of these inspections, observations relative to protected and vital area security were made, including access controls, boundary integrity, search, escort, and badging. Items identified relative to security are covered in a separate NRC Investigation report (50-272/80-02 and 50-311/80-03).
- c. The following acceptance criteria were used for the above items:
 - -- Technical Specifications
 - -- Operation Directives Manual
 - -- Inspector Judgement
- d. The inspector had no questions relative to tours made during this inspection.

5. Full Power License Conditions (Unit 2)

On January 14, 1981, the NRC staff, including the Senior Resident Inspector, briefed the Commission on the status of Salem Unit 2 and the proposed licensing action to authorize operation in excess of 5% rated thermal power. Included in the briefing were the draft license and Technical Specifications. The draft license includes conditions relating to actions responsive to staff concerns, NUREG-0694 and NUREG-0737. The inspector reviewed a number of these items to determine status of implementation. The following comments apply to the areas reviewed:

Task II.E.1.1 - Auxiliary Feedwater System Reliability.

- -- The Demineralized Water supply line drain in the 64' elevation switchgear room has been hard-piped to the floor and terminates approximately 2 feet from a floor drain.
- -- Emergency Instruction, EI-I-4.1, Flooding or High Wind Conditions, Revision 6, dated April 25, 1979, with on-the-spot change P-1, dated November 29, 1980 is in place and requires the installation of the Auxiliary Feedwater-Service Water spool piece upon receipt of a tornado warning.

Task I.D.1 - Control Room Design Review.

-- Alarm annunciator systems have been modified to provide considerably increased sound levels over those previously available. Initial settings were found to be uncomfortably loud. The inspector was present in the control room when the alarms were set under conditions of emergency ventilation and considered a level of 10 db above background in the 4000 Hz (center frequency) band adequate. All alarm speakers have been set at least 10 db above emergency supply fan background. The licensee, in correspondence dated January 16, 1981, provided the basis for this setting to the Office of Nuclear Reactor Regulation.

6. Plant Operations

a. Unit 1 tripped from 100% power at 9:56 AM on January 19 due to low-low steam generator level. No. 11 Steam Generator Feed Pump had tripped on an indicated overspeed condition, resulting in the low levels. Investigation identified no cause for the overspeed trip, however several electronic components were replaced. The reactor was critical at 4:56 PM. Two subsequent trips occurred from low power levels at 11:20 PM and 1:59 AM on January 20. In each case, the cause was low-low level in No. 14 steam generator (18% level trip point). Criticality was achieved at 2:54 AM on January 20. At 4:00 PM on January 21, 1981 reactor power was back at 100%. Unit 1 again tripped from 100% power at 7:07 PM on January 26. While conducting functional checks on power range flux channel N-42, with the bistables tripped by procedure, the technician pulled signal cables for N-41, completing the 2 of 4 trip logic. The reactor was critical at 12:57 AM on January 27. Delays in latching the turbine were experienced while resolving a problem with low EHC autostop oil pressure. The unit synchronized to the grid at 6:29 AM on January 27. All systems functioned normally on the trip. During power ascension following restart excessive vibration was experienced on No. 11 Steam Generator Feed Pump. The pump was taken out of service and power was limited to approximately 65% with the remaining feedwater pump.

At approximately 3:00 PM on January 29, containment sump pump start/ stop times indicated a leak in containment on the order of 4 to 5 gpm. Investigation inside containment indicated a possible service water leak from cooler tubes in No. 12 Containment Fan Cooling Unit. This was reported to the NRC duty officer in accordance with IE Bulletin 80-24. Later investigation could not confirm a leak from the CFCU. Subsequent evaluations included a determination of accuracy of sump pump start/stop level instrumentation. No other indicators, including water inventory, activity, sump overflow, or visual inspection confirmed leakage into containment. It was ultimately determined that shortcycling of the sump pump caused an erroneously high leak rate determination.

Repairs to service water piping outside containment serving No. 11 Containment Fan Coil Unit extended until 10:15 AM on January 30, at which time the 72 hour Action Statement expired. Plant load reduction was initiated. NRR authorized an emergency Technical Specification change which modified the Action Statement to 7 days, consistent with Unit 2 Technical Specifications (standard). No. 11 CFCU was in service by noon on January 30, 1981.

A manual turbine trip/reactor trip was initiated at 1:45 PM on January 30 due to increasing turbine bearing temperatures. The cause was identified as a service water control valve which had drifted shut. Unit return to service was delayed by repairs to containment sump pump controls, repair of a flange leak in an RTD bypass loop, and a trip from low power due to low steam generator level. The plant was critical at 3:47 PM on January 31 and synchronized at 9:03 PM on January 31.

The inspector had no questions relative to licensee response on the above situations.

b. During a Unit 1 control room tour on January 20, with the plant in Mode 2 and startup in progress, the inspector noted that Auxiliary Feedwater Storage Tank indicated level was 86%. The minimum required by Technical Specification 3.7.1.3 is 200,000 gallons which corresponds to approximately 94% level. The Action Statement requires restoration in level within 4 hours. At the time of this observation, reactor power was approximately 2% with auxiliary feedwater in service. No action had been taken to restore level or acknowledge entry into the corresponding action statement. Licensee procedures require a log entry to be made when entering an Action Statement of the Technical Specifications. A review of operating logs on January 8, identified instances on January 7 and 8, in which Number 1 Fire Pump Day Tank level was recorded as 26" and 28" respectively. The minimum required by Technical Specification 4.7.10.1.2 corresponds to approximately 30.5". No acknowledgement that an Action Statement of the Technical Specifications was in effect could be identified and no corrective action to increase level was taken until the item was brought to the attention of the operators by the inspector.

On January 27, the inspector noted that Pressurizer Overpressure Protection Channel 2 (2PR48) was not in service on Unit 2. No reason could be determined by operators and the channel was placed in service. Technical Specification 3.4.9.3 requires both channels to be operable and permits, under an Action Statement, inoperability of one channel for up to seven days. No acknowledgement of the Action Statement applicability was identified.

The above failures to acknowledge an Action Statement of the Technical Specifications and making of appropriate log entries constitute an apparent item of noncompliance (272/81-01-02)(311/81-01-01).

c. Emergency Procedures for Coping With ATWS Events

The inspector reviewed licensee procedures and practices to ensure that adequate guidance is provided to operators if rod insertion fails to occur when a reactor trip is initiated.

The inspector reviewed Emergency Instruction I-4.3, Reactor Trip. This instruction specifically addresses a failure of one or more control rods to insert. In the event that reactor trip does not occur, the operator is directed to perform the following actions:

- a) Operate a console reactor trip button
- b) Operate the console turbine trip button.
- c) Open the trip breakers at the console.
- d) Initiate safety injection.
- e) Open the trip breakers locally.
- f) Trip the rod drive motor-generator sets at the local breaker.

Any of the above actions should de-energize the control rod drive mechanisms causing rod insertion. Safety injection is initiated vice rapid boration to provide for immediate injection of borated water and the addition of another reactor trip signal.

The inspector noted that no direction is provided for the operator to manually insert (drive in) the control rods. Discussion with the licensee and review of the magnetic jack mechanism design revealed that gravity is the only motive force causing rod insertion. Accordingly, de-energizing the control rod drive mechanisms should be more effective than driving in the control rods. The emergency procedure provides for further action when one or more control rods fail to insert. In this case, rapid boration at 150 gpm for eight minutes is specified for each rod not fully inserted. The procedure details the steps for rapid boration. All steps can be performed at the operator console in the control room.

The inspector had no further questions relative to the above procedure at this time.

d. During a tour of the switchgear room for unit 2, the inspector observed a jumper extending between two adjacent electrical cabinets. The inspector was not aware of any testing or plant conditions requiring the jumper, and investigated the reason for the installed jumper. The jumper was installed earlier during the performance of Startup Test Procedure 70.3. A change to the test procedure for convenient installation of test gear provided for the installation of the jumper. Subsequent steps in the procedure required removal of the test gear. The jumper should have been removed but was apparently missed. The change to the procedure did not specifically provide for the removal of the jumper. Since the jumper was installed pursuant to a test procedure, it was not subject to control by administrative procedures regarding installation of temporary jumpers. The jumper facilitated test instrumentation and did not affect any safety related functions. The jumper was removed. The inspector had no further questions.

7. Fuel Cycle 3 Startup Testing

a. The inspector discussed the quadrant power tilt observed during the Unit 1 startup with the Senior Reactor Staff Supervisor, reviewed incore flux maps and analyses and reviewed WCAP-8927, "The Nuclear Design of Salem Unit 1 Power Plant, Cycle 3", October 1980, and Westinghouse letter, FP-PS-358, "Unit 1, Cycle 3 Incore Constants", dated December 2, 1980. Comparing Flux Map # 1301, taken December 21, 1980 at 3.5% Rated Thermal Power with the quadrant power tilt calcualted in WCAP-9827, the inspector developed the following data:

| Bank D @ 212, 1258 ppm B Measured, Map 1301 | | All Rods <u>calculat</u> | All Rods Out, Hot Zero Power calculated, WCAP-9827 | |
|--|-------|-----------------------------|---|--|
| 1.0666 | 0.989 | 1.008 | 1.023 | |
| 1.039 | 0.906 | 1.015 | 0.954 | |

Unit 1 attained Xenon equilibrium at 100% Rated Thermal Power on January 13. The inspector developed the following data from incore Flux Map # 1313 taken January 13 and the Westinghouse letter on Incore Constants referenced above:

| Bank D @ 228, 741 ppm B Measured, Map 1313 | | All Rods Out, Hot Full Power calculated, FP-PS-358 | | |
|---|-------|---|-------|-------|
| 1.011 | 0.992 | | 1.000 | 1.007 |
| 1.024 | 0.973 | - <u>-</u> · · · · | 1.007 | 0.986 |

The incore calculation for Map 1313 was compared to Technical Specifications as follows:

| <u>Parameter</u> | <u>TS limit</u> | <u>Map 1313 Calculation</u> (most limiting value) |
|--------------------|--------------------------|--|
| Fxy | \leq 1.65 (6 to 12 ft) | 1.6334 |
| FAH | <u><</u> 1.55 | 1.4166 |
| F _Q (Z) | \leq 2.32K(Z) | Within limits at all axial locations |

The quadrant power tilt determined by the incore flux detector system and computer analysis of flux data generally follows that predicted by the Westinghouse nuclear design with respect to shape, but is slightly greater than the predicted magnitudes. Comparison of calculated hotchannel factors with Technical Specification limits for the core at 100% Rated Thermal Power showed all factors to be within limits.

b. Additional startup test results were reviewed to confirm that the prescribed program had been completed. These included isothermal temperature coefficient, power coefficient, and rod worth measurements.

The inspector had no questions relative to test results reviewed.

8. Maintenance

a. During unit 1 startup after a reactor trip, excessive vibration was experienced in #11 Main Feed Pump/Turbine. The feedpump and turbine were shut down for further investigation. Initial inspection required removal and inspection of the thrust and journal bearings. The turbine inboard journal bearing was wiped.

The outboard pump and turbine journal bearings were replaced. The turbine was run disconnected, and no unusual vibrations were observed. An independent testing agency was contracted to instrument, test and evaluate the feed pump. During startup, minor vibrations were experienced in the axial direction, but have been attributed to high background readings.

A full load test is in progress at the conclusion of this inspection period. A formal report will be provided to the licensee at the conclusion of this evaluation. Tentatively, the reports will contain the evaluation results plus any recommendations regarding future operation of the feed pumps. Apart from the pending evaluation, no obvious cause has been attributed to the excessive vibration and wiped bearing. The inspector will review the results of the evaluation during routine inspection. The inspector observed portions of the bearing removal and reinstallation and had no further questions.

b. The inspector reviewed the calibration procedures for the general area beta-gamma air monitoring systems, AMS-2 and AMS III. The inspector compared the manufacturer's technical manual with the licensee's calibration procedures, PD-15.9.012 (Rev 0) for the AMS-2 and PD-15.9.027 (Revision 0) for the AMS III. Both procedures require the detector efficiencies to be recorded in a log. The inspector observed that there were no maximum or minimum values specified in the procedures for detector efficiency. The licensee stated that the efficiency was for conversion from disintegrations to counts per minute and not used to determine the acceptability of the detector's performance. The inspector observed that the calibration procedure for the AMS-2 provides for calibration of the meter but not the chart recorder. The licensee stated that the recorder was used to indicate trends and not for quantitative values. Based on the intended use of the monitors, the inspector found these items acceptable. The inspector further noted that the AMS III requires a calibration/flow check with an air flow indicator. The AMS-2 procedure does not require the air flow to be calibrated or checked. The licensee stated that this would be included in the procedure. This item is open (272/81-01-05) pending revision of the procedure to include air flow calibration.

9. Fire Protection

a. During the inspection period, the inspector noted various fire doors which could not be considered fully serviceable. The deficiencies ranged from broken latches to broken door closure devices. Conversation with licensee personnel revealed over fifty work orders had been issued to repair fire doors. After the day shift for the final work day of this report period, the inspector identified the following fire doors with degraded conditions as noted:

| Location | <u>Elevation</u> | Number | Remarks |
|--------------|------------------|------------------------------|---------------------------------|
| Aux bldg | 100' | 36 | blocked open |
| 11 11 | 100' | 35 | closure mechanism broken |
| 11 11 | 100' | 394 | fouled with electrical cable |
| 11 11 | 100' | 31 | closure mechanism broken |
| 11 11 | 122' | 438 | air pressure differential |
| | 88' | (access to diesel fuel tank) | blocked open |
| 11 11 | 88 ' | 361 | blocked open |
| ti i1 | 88' | 13 | fouled with electrical cable |
| 11 11 | 100' | 29 | air pressure differential |
| 11 11 | 100' | 374 | closure device broken |

There were no attendant fire watches for any of these doors. The inspector provided the above information to the Senior Shift Supervisor and a member of the security force who had been tasked to inspect the fire doors. His survey coincided with the NRC inspector's. This item (fire doors) was previously identified in NRC Inspection Report 50-272/80-27. This item is unresolved pending an evaluation of the licensee's correction of the previous item (272/81-01-06).

During a plant tour, the inspector noted that two Unit 2 fire hose stab. tions were inoperable in that the hoses had been disconnected from their standpipe connections and the reels were on the floor some distance away. One reel, inside Unit 2 containment, was located under a stairwell next to the standpipe (2FP88). This hose is required to be operable by Technical Specifications whenever equipment in the area is required to be operable. Periodic surveillance, conducted on January 2, 1981 had identified the reel as missing and no action had been taken by the time of discovery by the inspector during the week of January 19, 1981. Immediate action to restore the hose reels to operable status was taken. The inspector expressed his concern that a hose reel required by Technical Specifications during operation had not been made operable in a more timely fashion. The licensee acknowledged the inspector's remarks. This item will continue to be inspected on a routine basis in the continuing inspection program.

10. Management Controls

a. Amendment 27 to Unit 1 Facility Operating License DPR-70 adds surveillance requirement 4.5.2.g which requires the verification of ECCS throttle valve positions within 4 hours following completion of each valve stroking operation or maintenance on the valve when ECCS subsystems are required to be operable.

In reviewing the monthly operating report for December 1980, the inspector noted that several of these throttle valves had been re-packed during the outage. The applicable work orders included a post-maintenance requirement to stroke the valves. No documentation could be identified to confirm the "as-left" position of the throttle valves. Interviews revealed that conflicting direction had been given to operators who verify throttle valve positions during pre-startup valve lineups. For each throttle valve in question, the licensee performed a verification of the valve position. The following conditions were found:

VALVE NUMBER OF TURNS OPEN

| Valve | As Found | Required | <u>As Left</u> |
|-----------|----------|-----------|----------------|
| 11 SJ 16 | 2 3/4 | 2 3/4 | 2 3/4 |
| 12 SJ 16 | 2 3/4 | 2 3/4 | 2 3/4 |
| 13 SJ 16 | 2 3/4 | 2 3/4 | 2 3/4 |
| 14 SJ 16 | 4 1/3 | 3 1/3 | 3 1/3 |
| 11 SJ 143 | 2 | 2 | 2 |
| 12 SJ 143 | 2 1/2 | 2 1/2 | 2 1/2 |
| 13 SJ 143 | 1 1/2 | 1 1/2 | 1 1/2 |
| 14 SJ 143 | 2 1/16 | 2 1/16 | 2 1/16 |
| 11 SJ 138 | 5 | 4 1/2 | 4 1/2 |
| 12 SJ 138 | 4 1/2 | Full Open | Full |
| 13 SJ 138 | 5 1/2 | 4 1/2 | 4 1/2 |
| 14 SJ 138 | 5 | 5 | 5 |

Based on this finding, the licensee submitted Licensee Event Report 81-07/01T. An evaluation of the valve misalignment is in progress.

The inspector determined that the applicable Technical Specification was issued by a license amendment which became effective after the subject valve maintenance had been conducted. Additionally, a subsequent analysis by the licensee and NSSS vendor confirmed that the particular valve misposition as referenced would not have prevented effective operation of the Safety Injection System in accordance with the design basis.

Failure to conduct an adequate verification of ECCS throttle valve position constitutes an apparent item of noncompliance (272/81-01-01).

During control room observations, the inspector noted that the Auxiliary Feedwater Tank level instrument in Unit 2 was marked with a grease pencil notation indicating that the transmitter was frozen. The Tank is not required to be operable in Mode 5. On another occasion, the two Unit 1 Refueling Waster Storage Tank level indicators were in disagreement; one indicated slightly greater than the minimum Technical Specification requirement and one indicated slightly less. Operators indicated that a local reading had been obtained to confirm the higher level as being correct. No provision was made to indicate which observed level in the control room was correct.

Further review by the inspector identified no formal mechanism established by the licensee for identifying control room instrumentation which may be erroneous due to malfunction or testing. Pending further review, this item is unresolved (272/81-01-04).

c. By correspondence dated December 29, 1980, the licensee responded to an item of noncompliance detailed in NRC Inspection Report 50-272/80-23 dealing with failures to secure high radiation areas. During tours of the facility, the inspector noted that until January 19, 1981, the licensee had not posted the item, nor the response, on plant bulletin boards.

Title 10 Code of Federal Regulations Part 19.11 (a) states in part, "...licensee shall post current copies of the following documents:... (4) any notice of violation involving radiological working conditions, ...and any response from the licensee." Part 19.11 (e) further requires that such posting take place within 2 days of receipt or dispatch and that the documents remain posted for 5 days or until action correcting the item has been taken.

The above failure to post documents required by 10 CFR 19 constitutes an apparent item of noncompliance (272/81-01-03).

b.

11. Unresolved Items

Areas for which more information is required to determine acceptability are considered unresolved. Unresolved items are contained in Paragraphs 8, 9, and 10 of this report.

12. Exit Interview

At periodic intervals during the course of this inspection, meetings were held with senior facility management to discuss inspection scope and findings.