(DCS Numbers - see attached sheet)

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

REGION I

Report Nos. 50-272/82-14
50-311/82-14

Docket Nos. 50-272
50-311

License Nos. DPR-70
DPR-75

Licensee: Public Service Electric and Gas Company

80 Park Plaza

Newark, New Jersey 07101

Facility Name: Salem Nuclear Generating Station - Units 1 and 2

Inspection At: Hancocks Bridge, New Jersey

Inspection Conducted: June 9 - July 6, 1982

Inspectors:

L. J. Norrholm, Senior Resident Inspector — 7/9/82 date

R. Summers, Resident Reactor Inspector — 7-8-82 date

J. W. Chung, Reactor Inspector — 7/9/82 date

E. T. Shaub, Reactor Inspector — 7/9/82 date

C. D. Petrone, Reactor Inspector — 7/9/82 date

Approved By:

L. E. Tripp, Chief, Reactor Projects Section No. 2A, Projects Branch No. 2, DPRP — 7/12/82 date

Report Nos. 50-272/82-14 and 50-311/82-14

050272-820502
050272-820510
050272-820515
050272-820526
050272-820621

050311-820424
050311-820428
050311-820501
050311-820503
050311-820508
050311-820516
050311-820518
050311-820519
050311-820522
050311-820524
050311-820527
050311-820530
050311-820607
050311-820706

Inspection Summary:
Inspections on June 9 - July 6, 1982 (Combined Report Numbers 50-272/82-14 and 50-311/82-14)
Unit 1 Areas Inspected: Routine inspections of plant operations including tours of the facility; conformance with Technical Specifications and operating parameters; log and record reviews; reviews of licensee events; implementation of strike plans; and followup on previous inspection items. The inspection involved 128 inspector hours by the resident and regional NRC inspectors. This included continuous inspection coverage (24 hours/day) during the continuing strike, and for the week after its conclusion.
Results: One violation was identified (Failure to follow procedures - Paragraph 3.B).
Unit 2 Areas Inspected: Routine inspections of plant operations including tours of the facility; conformance with Technical Specifications and operating parameters; log and record reviews; reviews of licensee events; implementation of strike plans; and followup on previous inspection items. The inspection involved 125 inspector hours by the resident and regional NRC inspectors. This included continuous inspection coverage (24 hours/day) during the continuing strike, and for the week after its conclusion.
Results: No violations were identified.

DETAILS

1. Persons Contacted

J. Driscoll, Assistant General Manager - Salem Operations
L. Fry, Operations Manager
J. Gallagher, Maintenance Manager
B. Leap, Station QA Engineer (Acting)
J. Gueller, Operating Engineer
J. Hagan, Maintenance Engineer
J. Jackson, Technical Engineer
H. Midura, General Manager - Salem Operations
L. Miller, Technical Manager
J. O'Connor, Radiation Protection Engineer

The inspector also interviewed 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) Follow Item (272/79-28-07) CO_2 flooding of diesel generator areas. The licensee has completed an evaluation which concludes with a recommendation that a running engine be shut down in the event of CARDOX system actuation. The concern stems from inability to cool the generator due to loss of ventilation. In an emergency, a maximum time of eight minutes is recommended before the engine is shut down or normal ventilation restored. These considerations have been included in Procedures IV 16.31, Emergency Power Diesel Operation and I-4.9, Blackout. The inspector had no further questions on this item.

(Closed) Unresolved Items (272/81-05-03 and 272/81-12-06) Valve 11SJ40 inoperable due to erroneous design change. On June 9, 1982, the licensee submitted supplemental Licensee Event Report (LER) 81-35/03X-1 which provides details of the design change process associated with this valve. As evidenced by pre-startup testing, the valve was operable when the unit returned to service in December 1980. However, during a short shutdown in March 1981, additional work was performed and not adequately tested. The valve failure was discovered during the routine valve surveillance test sixteen days after startup. Corrective actions, which include more specific controls over completion of retest requirements, have been verified by the inspector.

(Closed) Unresolved Item (272/80-13-03) Boron Injection Tank flowmeter. On June 7, 1982, the licensee submitted supplemental LER 80-04/03X-1 providing additional details of this event. A contributing factor to the loss of flow indication was the absence of two float retaining rings. Since the rings are too large to enter the flow stream and no evidence of break-up was found, it appears probable that they were not installed during the most recent disassembly. Subsequent training of personnel should preclude recurrence of improper assembly. No similar events have been reported.

(Closed) Unresolved Item (311/81-13-02) Auxiliary Feedwater governor valve hunting. By memorandum dated July 6, 1981, the licensee has concluded that permanent corrective action for the hunting and high steam flow signals observed on startup of the steam driven auxiliary feedwater pumps consists of exercising the governor on shutdown. Applicable procedures require that speed demand be cycled when the pump is secured. The inspector had no further questions.

3. Review of Plant Operations

A. Daily Inspection

The inspector toured the control room area to verify proper manning, access control, adherence to approved procedures, and compliance with LCOs. Instrumentation and recorder traces were observed. Status of control room annunciators was reviewed. Nuclear instrument panels and other reactor protective systems were examined. Control rod insertion limits were verified. Containment temperature and pressure indications were checked against Technical Specifications. Effluent monitors were reviewed for indications of releases. Panel indications for onsite/offsite emergency power sources were examined for automatic operability. During entry to and egress from the protected area, the inspector observed access control, security boundary integrity, search activities, escorting, badging, and availability of radiation monitoring equipment.

The inspector reviewed shift supervisor, control room, and field operator logs covering the entire inspection period. Sampling reviews were made of tagging requests, night orders, the jumper/bypass log, incident reports, and QA nonconformance reports. The inspector also observed several shift turnovers during the period.

The above daily inspections, which included back shifts, were made on June 9-19, 21-25, 28-30, July 2 and 6.

No unacceptable conditions were identified.

B. Plant Tours

The inspector toured accessible areas of the plant at least once per week. The tours included the control rooms, relay rooms, switchgear rooms, penetration areas, auxiliary building (elevations 122', 100', 84', 64', 55'), fuel handling building, turbine building, service water intake structure, plant perimeter and containment. During these tours, observations were made relative to equipment condition, fire hazards, fire protection, adherence to procedures, radiological controls and conditions, housekeeping, security, tagging of equipment, ongoing maintenance and surveillance, and availability of redundant equipment.

Operability of the following Unit 2 ESF subsystems was verified by confirming flowpath valve positions, breaker alignment, instrumentation and equipment condition: Containment Spray (both trains - Auxiliary Building), Auxiliary Feedwater (3 trains - Auxiliary Building and Penetrations), Safety Injection (both trains - Yard, Auxiliary Building and Penetrations), Service Water (both trains - Yard, Auxiliary Building). Current tagouts of selected components were verified in effect as specified. Records of current surveillance for tank boron concentrations, shutdown margin and pump testing were reviewed.

The following Limiting Conditions for Operation, not directly verifiable in the control room, were confirmed by field inspection or record review: service water availability to Auxiliary Feedwater (3.7.1.3), Fire barriers (3.7.11), Diesel fuel inventory (3.8.1.1), and CARDOX system availability (3.7.10.3).

During a tour on June 28, 1982, the inspector noted that valves 12AF10 and 12AF86 were open but the locks and chains were draped around the yoke only. The valves are required to be locked open by Procedure OI-III.10.3.1, Revision 6, dated December 3, 1980. Technical Specification 4.7.1.2.a.4 requires these valves to be verified locked in the open position monthly. The Tagging Request and Inquiry System (TRIS) computer data file indicated their status as locked open (LO) as of June 21, 1982, which was the date of the last known manipulation of the valves in support of maintenance activities. Procedure AP-15, Safety Tagging Program, requires updating of the computer file when valves are tagged or tags removed, and further requires verification of restoration lineups. Failure to maintain accurate and correct status of valves 12AF10 and 12AF86 constitutes a violation of Technical Specification 6.8.1 (272/82-14-01).

With respect to the TRIS, the licensee is continuing to convert existing tagouts to the computer-based system. The inspector identified several valid tags in the field which had been affixed under the old system but for which no current tagging request existed in the control room. As a result of this finding, the licensee completed a full review of "old" tags in the field to update control room files.

Except as noted in the following paragraph, the inspector had no further questions relative to observations during plant tours.

4. Main Steam Line Isolation Valves

During control room tours, the inspector noted that 3-way valve 23 MS 168 was positioned in the "B-port" position and apparently had been so positioned for some time.

As described in Amendment 18 to the Final Safety Analysis Report (response to Question 10.15), the Main Steam Isolation Valves (MSIV) achieve rapid closure by venting steam from the operating piston. The vented steam is routed through a three-way valve (MS 168) which can port to either or both of two vent paths. The vent paths lead to two air operated vent valves, each of which is opened by a solenoid valve which vents air from the vent valve operator. Each solenoid valve receives an open signal from one of two trains of the Solid State Protection System (SSPS). The same FSAR discussion details the single failure protection afforded by redundant valves receiving signals from separate protection trains.

With the 23 MS 168 valve in "B-port" only one vent valve will provide the rapid close feature for the No. 23 MSIV and, accordingly, only one SSPS train will cause such closure. By memorandum dated September 3, 1980, the licensee contends that such alignment of one and only one three-way valve does not compromise the isolation function (i.e. at least three Steam Generators isolate). The licensee, in reviewing this memorandum and the associated procedure changes dated January 1981, concluded that such operation does not constitute an unreviewed safety question. However, the associated change in a procedure as described in the FSAR has apparently not yet been reported to NRC as required by 10 CFR 50.59.

The licensee further takes the position that the individual solenoid valves, one of which is rendered inoperable by the above alignment, do not constitute part of the Automatic Actuation Logic as listed in Technical Specification Table 3.3-3. To resolve this question and to achieve NRC review of the single failure question, the licensee stated that a request for change to the Technical Specifications will be submitted by September 1, 1982 to clarify acceptable alignment of the three-way valve. This item is unresolved pending further review by the inspector and NRR (311/82-14-01). Based on discussions with licensee and NRC staff personnel, interim operation with no more than one solenoid valve (of eight) inoperable appears acceptable and within the scope of the safety analysis.

5. Review of Periodic and Special Reports

Upon receipt, periodic and special reports submitted by the licensee pursuant to Technical Specifications 6.9.1 and 6.9.2 were reviewed by the inspector. The reports were reviewed to determine that the report included the required information; that test results and/or supporting information were consistent with design predictions and performance specifications; that planned corrective action was adequate for resolution of identified problems; and, whether any information in the report should be classified as an abnormal occurrence.

The following periodic and special reports were reviewed:

-- Unit 1 Monthly Operating Report - May 1982

-- Unit 2 Monthly Operating Report - May 1982

No unacceptable conditions were identified.

6. Surveillance Testing

The inspector observed the performance of surveillance tests to confirm the following: testing was performed in accordance with adequate procedures; test instrumentation was calibrated; limiting conditions for operations were met; removal and restoration of the affected components were properly accomplished; test results conformed with Technical Specification and procedural requirements and were reviewed by personnel other than the individual performing the test; deficiencies noted were reviewed and appropriately resolved; personnel performing the surveillance activities were knowledgeable of the systems and the test procedures and were qualified to perform the tests.

These observations included:

-- 1 PD - 2.6.023 Channel Functional Test - 1 PT 474 Pressurizer Pressure Protection Channel IV Revision 5, dated November 23, 1981

-- PD - 16.4.002 Intermediate Range Compensation Voltage Adjustment Revision 2, dated March 4, 1982

The inspector also reviewed Unit 2 in-core flux map data to confirm surveillance requirements for core reactivity, RCS flow rate, R_1, and R_2 were current and within limits. The inspector noted that, in computing R_1, the licensee employs the relationship;

$$R_1 = \frac{F_{\Delta H}^N}{1.49\left[1.0 + 0.3\,(1.0-P)\right]}$$ instead of

$$R_1 = \frac{F_{\Delta H}^N}{1.49\left[1.0 + 0.2\,(1.0-P)\right]}$$ as stated in

Technical Specification 3.2.3. The former relationship is, however, consistent with the equation for F^L_{xy} as changed by Amendment 6 to the Technical Specifications. At power levels near 100%, the effect of this difference is seen in the fourth significant digit. To achieve consistency, the licensee stated that a request to change the R_1 specification will be submitted. This will be confirmed during a subsequent inspection (311/82-14-02).

7. Maintenance Activities

The inspector observed portions of maintenance activities to determine that the work was conducted in accordance with approved procedures, regulatory guides, Technical Specifications, and industry codes or standards. The following items were considered during this review: limiting conditions for operation were met while components or systems were removed from service; approvals were obtained prior to initiating the work; activities were accomplished using approved procedures and were inspected as applicable; functional testing was performed prior to declaring that particular component as operable; activities were accomplished by qualified personnel; radiological controls were implemented; and fire prevention controls were implemented.

Activities observed included:

-- Repair of Vital Heat Tracing Primary Circuit

-- Repair of Valve 22 SW 57

-- Repair of 1B Diesel Generator pre-lubrication low flow alarm switch

No unacceptable conditions were identified.

8. Employee Strike

At midnight April 30, 1982, all bargaining unit employees represented by International Brotherhood of Electrical Workers Local 1576 went on strike. These employees included all operators to the level of Nuclear Control Operator (licensed Reactor Operators), and all maintenance and technician personnel at non-supervisory levels. Prior to the strike, the inspectors confirmed that the licensee had adequately prepared a contingency plan for continued operation. As the strike continued, the inspectors verified that regulatory and safety criteria were adequately addressed by assigned personnel.

Licensed duties in the control room were assigned to currently experienced Senior Reactor Operators who normally perform the shift supervisory functions. Similarly, maintenance and technical functions were assigned to supervisory personnel with current or recent experience in the respective jobs to be performed. Twelve hour shift rotations were established with all licensed positions being adequately covered by recently experienced operators. Non-licensed positions were filled by a core of licensed operators augmented by engineers and staff personnel receiving on-the-job training.

The strike continued until June 11, 1982. The inspectors evaluated continuity of manning as required by the license, qualifications of personnel in assigned tasks, and the impact on plant staff of protracted working hours and confinement. The inspection also addressed continuity of surveillance and maintenance activities as required to comply with Technical Specifications. By letter to NRC Region I dated May 20, 1982, the licensee outlined a post-strike security plan to confirm availability of equipment and to preclude acts of tampering and vandalism.

Union members began to report for work at 0001 on June 11, 1982. All operators received training to ensure they were current in station operations and procedures. A three-shift phase-in period was established with supervision gradually returning shift operations to bargaining unit operators. The inspector also confirmed that periodic checks of valve lineups and availability of rotating equipment were completed satisfactorily.

The turnover to normal operations and maintenance crews appeared orderly and complete and was accomplished with no significant incidents. The inspectors noted that housekeeping initiatives taken during the strike began to degrade as normal work activities resumed. However, visible efforts to maintain high standards of cleanliness were evident through the report period.

No unacceptable conditions were identified during the resumption of normal operations.

9. Full Power License Conditions (Unit 2)

The full power license for Salem Unit 2 was issued on May 20, 1981, and contains several conditions to be met prior to given dates or events. The inspector reviewed a number of these items to determine status of implementation. The following comments apply to the areas reviewed (Numbers refer to paragraph references in the full power license):

-- 2.C.(18) Vibration dynamics effects test. The inspector reviewed licensee safety evaluation S-C-A900-MSE-144-Revision 0, dated May 27, 1982 which summarizes the testing and observation conducted during initial operation to evaluate vibration effects during planned and unanticipated transients. During the conduct of applicable tests, particular focus was placed on identifying cracks in grout, leaks in gaskets or flanged corrections, metal to metal contact and unusual noise attributable to water hammer. In those cases where vibration was evident, notably CVCS suction piping, corrective action was taken to reduce the effects. The inspector had no further questions on this item.

10. Operating Events

UNIT 1

The plant tripped from 100% power at 1:03 p.m. on June 21 due to low level in Steam Generator 11 following loss of Steam Generator Feedwater Pump 11. The pump tripped on indicated overspeed immediately after the power supply to a pressure transmitter undergoing calibration was re-energized. These switches have been the source of electrical noise in the past. Two technicians performing the calibration were the only individuals present at the control cabinet. All systems functioned normally on the trip. The plant was critical at 6:22 p.m. on June 21 and synchronized at 8:01 a.m. on June 22. Subsequent inspection of the replaced power supply switch revealed high resistance contacts, sufficient to depress bus voltage such that speed indication and the overspeed relay were affected.

UNIT 2

The plant tripped from 98% power at 10:16 a.m. on July 6 due to low level in Steam Generator 24 following loss of Steam Generator Feedwater Pump 22. The pump tripped on loss of suction pressure associated with a low flow condition from the heater drains. The unit has experienced problems in this area before and the licensee is continuing to develop and implement long term corrective action.

The unit was critical at 10:04 p.m. on July 6 and at 11:20 p.m., while warming steam lines at 2% power, steam generator safety valve 23 MS 15 (lowest set) lifted prematurely and failed to reseat. While driving rods to shutdown, a reactor trip occurred at 11:42 p.m. due to low level in Steam Generator 23. Following the trip, a cooldown was initiated and the safety valve reseated at 11:54 p.m. with steam pressure at 800 psig and Tavg at 522°F. At the end of the report period, the plant was in Mode 3 with the safety valve gagged.

11. Licensee Events

a. In Office Review of Licensee Event Reports

The inspector reviewed LERs submitted to the NRC:RI office to verify that details of the event were clearly reported, including the accuracy of the description of cause and adequacy of corrective action. The inspector determined whether further information was required from the licensee, whether generic implications were involved, and whether the event warranted onsite followup. The following LERs were reviewed:

UNIT 1

* 82-31/03L No. 11 Safety Injection Pump - Inoperable

* 82-32/03L Nos. 11 and 12 Boric Acid Transfer Pumps - Inoperable

	82-33/03L	Axial Flux Difference - Out of the Target Band
	82-34/03L	No. 14 Steam Generator Wide Range Level Inoperable
*	82-35/99X	No. 2 Fire Pump Inoperable
*	82-36/03L	No. 12 Control Room Emergency Air Conditioning Fan - Inoperable
	82-37/03L	No. 12 Containment Fan Coil Unit - Inoperable Due to Stuck Flow Control Valve
	UNIT 2	
	82-31/03L	Loss of No. 2C Vital Bus - Undervoltage Due to Spurious SEC Actuation
*	82-32/03L	Axial Flux Difference Outside Target Band and Control Rods Outside Insertion Limit
	82-33/03L	No. 21 Control Room Emergency Air Conditioning System Fan - Inoperable
*	82-34/03L	No. 23 Steam Generator Feedwater Line Snubbers - Inoperable
*	82-35/03L	No. 22 Containment Fan Coil Unit - Inoperable
*	82-36/03L	No. 21 Containment Fan Coil Unit - Inoperable
*	82-37/03L	Containment Plant Vent Radioactivity Monitor - Inoperable
	82-38/03L	No. 23 Containment Fan Coil Unit - Inoperable Due to Plugged Flow Transmitter
*	82-39/01T	No. 21 Containment Fan Coil Unit - Inoperable
*	82-40/01T	Containment Service Water Leak - No. 22 Containment Fan Coil Unit
*	82-41/03L	Nos. 22 and 24 Containment Fan Coil Units - Inoperable
	82-42/03L	No. 21 Overtemperature Delta T Channel 1 - Setpoint Out of Specification

*	82-43/03L	Primary Containment - Missed Surveillance
	82-44/03L	130' Elevation Containment Air Lock - Inoperable Due to Twisted Door Seal
*	82-45/03L	100' Elevation Containment Air Lock - Inoperable
*	82-46/03L	No. 23 Containment Fan Coil Unit - Inoperable
*	82-47/03L	100' Elevation Containment Air Lock - Inoperable

b. Onsite Licensee Event Followup

For those LERs selected for onsite followup (denoted by asterisks in detail paragraph 11a), the inspector verified the reporting requirements of Technical Specifications and Regulatory Guide 1.16 had been met, that appropriate corrective action had been taken, that the event was reviewed by the licensee as required by AP-4 and 6, and that continued operation of the facility was conducted in accordance with Technical Specification limits. The following findings relate to the LERs reviewed on site:

UNIT 1

--	82-31/03L	The licensee has previously noted sensitivity of the Safeguards Equipment Cabinets (SEC) to electrical noise associated with plant equipment, notably Pure Water Pumps and the SW 122 valves. Modifications to isolate the SEC and to install suppression diodes in equipment controls are underway. As stated in the LER, a supplemental report will be submitted on completion of the modifications. This activity is being reviewed as part of the continuing inspection program (Reference NRC Inspection Report 50-311/81-19).
--	82-32/03L	Following adjustment of impeller clearances, both pumps were retested and new baselines established in accordance with ASME Section XI. The inspector reviewed the test data and identified no unacceptable conditions.
--	82-35/99X	Based on subsequent failures in June, which will be the subject of another LER, these failures of the starter motor appear to have been caused by an intermittent problem in the alternator. Speed feedback is provided to the start circuitry from the attached alternator. If the alternator output is lost, the start circuitry sees a stopped condition and attempts a restart. In late June, the alternator, regulator and some wiring were replaced with vendor assistance. Several starts and runs of the pump were performed. No recurrence of start system failure had been experienced by the end of the report period. The licensee will supplement LER 82-35 with another report.

-- 82-36/03L — No. 12 Control Room Emergency Air Conditioning Fan failed to start due to trip of the 230 volt feeder breaker to the 1C vital ventilation bus. No valid reason for the trip was identified and current readings under loaded conditions were normal. Investigation of subsequent trips, reported by a later LER, revealed that the feeder breaker was set at the low end of the allowable overcurrent trip range. In addition, consideration was being given toward upgrading the rating of the breaker. This item will be reviewed in followup of the subsequent LER.

UNIT 2

-- 82-32/03L — Details of this event are discussed in NRC Inspection Report 50-311/82-09. Rapid power changes, which require the use of control rods result in axial flux perturbations as an expected occurrence. Penalty minutes were accounted for as required and the power limitations of Technical Specifications applied. The inspector had no questions.

-- 82-34/03L — During operation, two locked up snubbers in the Feedwater system were identified. The snubbers were replaced and the supported system evaluated as required by Technical Specifications. The inspector talked with the evaluator and reviewed the stress analysis conducted on the supported piping. The initial evaluation was made on the basis of symmetrical calculations made on a prior occasion (reference LER 50-272/79-54). The actual stress calculation, assuming rigid supports at the snubber locations, was made at a later date. At the time of the inspector's review (July 1, 1982), no written evaluation had as yet been prepared. The inspector further noted that no procedure had been prepared to conduct the evaluation and assess the operability of supported systems within the time frame available in Technical Specifications. Completion of a written safety evaluation in this case, preparation of general procedures for stress evaluation and a supplement to the LER detailing failure mode are unresolved pending further review by the inspector (311/82-14-03).

--	82-35/03L 82-41/03L 82-46/03L	Since mid-May 1982 the licensee has been finding oyster shells in service water flow control valves (reference NRC Inspection Report 50-311/82-13). To date, the shells have been confined to unit 2 with only Containment Fan Coil Unit (CFCU) 21, 22 and 23 affected. Differential pressure monitoring has identified the problem early and enabled rapid restoration to service. Actual fouling of the valves has been relatively infrequent since the initial discovery. The licensee is continuing to monitor the affected valves and is developing mechanisms to eliminate the colony. The CFCU's are operated at least once per day ensuring early discovery of a problem.
--	82-36/03L	This failure to start was attributed to a failed control board pushbutton. Repair was observed by the inspector who had no questions.
--	82-37/03L	This event parallels LER 82-09 in which the 2 VC 908 valve was also found in a partially closed position. At the time of the first event corrective action was aimed at procedure adherence. The investigation performed following the second event revealed that vibration could also have been the cause due to a loose packing. The valve packing was tightened and the air samplers returned to service.
--	82-39/01T	This event is detailed in NRC Inspection Report 50-311/82-13. The failed motor cooler was replaced in-kind. A design change has been issued to upgrade materials in both the motor coolers and the fan coils.
--	82-40/01T	This event is detailed in NRC Inspection Report 50-311/82-13. Due to administrative errors, the written report was submitted in greater than 14 days. Corrective action to address this oversight has been taken. The prompt notification was made within 5 minutes.
--	82-43/03L	This event is detailed in NRC Inspection Report 50-311/82-13 as a violation. Procedure changes to include the omitted containment valves have been made.
--	82-45/03L 82-47/03L	These LER's detail inoperability of the 100' elevation containment air lock. In the first case, the inner door latch had failed due to bearing failures of the latch rod and roller assemblies. The failures could have been due to normal wear or improper operation.

-- 82-45/03L
-- 82-47/03L

The licensee continues to stress careful operation of the air lock doors in training and is instituting a vendor designed preventive maintenance program for the doors. The second failure is attributed to expected wear-in of the replaced components and was corrected by adjustment.

The inspector had no further questions with respect to LER's reviewed.

12. IE Circular Followup

a. For the IE Circulars listed below, the inspector verified that the Circular was received by the licensee management, that a review for applicability was performed, and that if the circulars were applicable to the facility, appropriate corrective actions were taken or were scheduled to be taken.

-- 81-07, Control of Radioactively Contaminated Material. By memorandum dated January 5, 1982, the licensee concludes that the contamination control procedures and practices at Salem are consistent with the guidance provided. The most significant exception taken is that release limits in use are lower than suggested by the circular. Consideration will be given to increasing the limits to more practical levels during the next scheduled procedure revision.

-- 81-14, Main Steam Isolation Valves Failure to Close. By memorandum dated March 2, 1982, the licensee concludes that the Salem steam pressure-operated parallel slide gate valves are not subject to the types of failures discussed. High quality control air is also considered a positive factor in precluding MSIV failures to close.

The inspector had no further questions with respect to Circulars reviewed.

13. Lessons Learned (NUREG-0737)

The following item, detailed in NUREG-0737, Clarification of Action Plan requirements, was to be completed on Unit 1 by January 1, 1982. The inspector confirmed that actions had been completed as described below.

-- II.F.1 Additional Accident - Monitoring Instrumentation

Noble Gas Effluent Monitor. The combination of overlapping monitors 1R41C, 1R45B, and 1R45C provides a plant vent monitoring range to 10 E+6 uCi/cc. These instruments are currently installed and provide monitoring for all potential release paths with the exception of the steam lines.

By letter to NRR dated June 11, 1982, the licensee committed to completion of the steam line monitors by the end of the fourth refueling outage, scheduled for the fall of 1982. This will be confirmed prior to that startup (272/82-14-02).

Containment High Range Radiation Monitors. Installed channels 1R44A and 1R44B provide gamma monitoring of containment to 10 E+7 R/hr.

Containment Pressure Monitor. Two pressure channels, with a range from -5 to 205 psig provide the required range of containment pressure monitoring and recording.

Containment Water Level Monitors. Two channels of level monitoring, covering the range from the bottom of the sump to an elevation corresponding to a contained volume in excess of 600,000 gallons are installed. Chart recorders will indicate level from elevation 70' to 90', with the top of the sump at about elevation 78'.

Containment Hydrogen Monitor. Two recording channels of Hydrogen concentration, reading to 10%, are installed.

No unacceptable conditions were identified relative to the above item.

14. Unresolved Items

Areas for which more information is required to determine acceptability are considered unresolved. Unresolved items are contained in Paragraphs 4 and 11.

15. Exit Interview

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