



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30323

Report No: 50-302/87-10

Licensee: Florida Power Corporation
3201 34th Street, South
St. Petersburg, FL 33733

Docket No: 50-302

Licensee No: DPR-72

Facility Name: Crystal River 3

Inspection Dates: March 7 - April 9, 1987

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| Inspectors: | <u><i>T. F. Stetka</i></u> | <u>4/22/87</u> |
| | T. F. Stetka, Senior Resident Inspector | Date Signed |
| | <u><i>J. E. Tedrow</i></u> | <u>4/22/87</u> |
| | J. E. Tedrow, Resident Inspector | Date Signed |
| Approved by: | <u><i>B. A. Wilson</i></u> | <u>4/22/87</u> |
| | B. A. Wilson, Section Chief | Date Signed |
| | Division of Reactor Projects | |

SUMMARY

Scope: This routine inspection was conducted by two resident inspectors in the areas of plant operations, security, radiological controls, Licensee Event Reports and Nonconforming Operations Reports, licensee action on IE Information Notices, preparations for refueling, and licensee action on previous inspection items. Numerous facility tours were conducted and facility operations observed. Some of these tours and observations were conducted on backshifts.

Results: One violation was identified: (Failure to perform channel checks and channel calibrations required by technical specification 4.3.3.6, paragraph 5.b(8)(a).)

REPORT DETAILS

1. Persons Contacted

Licensee Employees

J. Andrews, Nuclear Engineer II
S. Balliet, Nuclear Engineer I
J. Barrett, Principal Nuclear Mechanical Engineer
*J. Brandely, Nuclear Security & Special Projects Superintendent
M. Clary, Principal Nuclear Mechanical Engineer
*M. Collins, Nuclear Safety & Reliability Superintendent
*J. Cooper, Superintendent, Technical Support
*E. Ford, Nuclear Safety Specialist
*R. Fuller, Senior Nuclear Licensing Engineer
J. Gibson, Nuclear Technical Specification Coordinator
*V. Hernandez, Senior Nuclear Quality Assurance Specialist
*B. Hickie, Manager, Nuclear Plant Operations
*M. Mann, Nuclear Compliance Specialist
*P. McKee, Director, Nuclear Plant Operations
L. Moffet, Nuclear Safety Supervisor
R. Murgatroyd, Nuclear Maintenance Superintendent
W. Neuman, Supervisor Inservice Inspection (ISI)
J. Payne, Nuclear Chemistry Supervisor
*J. Roberts, Nuclear Chemistry Manager
S. Robinson, Nuclear Waste Manager
*W. Rossfeld, Nuclear Compliance Manager
D. Wilder, Radiation Protection Manager
K. Wilson, Manager, Site Nuclear Licensing
*R. Wittman, Nuclear Operations Superintendent

Other personnel contacted included office, operations, engineering, maintenance, chemistry/radiation and corporate personnel.

*Attended exit interview

2. Exit Interview

The inspector met with licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on April 9, 1987. During this meeting, the inspector summarized the scope and findings of the inspection as they are detailed in this report with particular emphasis on the Violation and Inspector Followup Items (IFI).

The licensee representatives acknowledged the inspector's comments and did not identify as proprietary any of the materials provided to or reviewed by the inspectors during this inspection.

3. Licensee Action on Previous Inspection Items

(Closed) Violation 302/86-38-04: The licensee has revised procedure SP-421, Reactivity Balance Calculations, (revision 28 dated February 4, 1987) to clarify the method of calculating the reactor shutdown margin. The inspector reviewed the procedure change and considers it sufficient to preclude recurrence of this event.

(Closed) Violation 302/86-38-02: The licensee initiated a Radiological Safety Incident Report (RSIR) #86-424 to document the failure to wear beta protective glasses. A management review board meeting reviewed this matter with the personnel involved and their immediate supervision. This board stressed the importance of strict compliance with radiological controls.

(Closed) Violation 302/86-38-05: The licensee requested and received a NRC exemption from the 10 CFR Part 50 Appendix J requirement to pressurize the air locks to the postulated peak containment internal pressure (Pa) prior to entering an operational mode which requires containment integrity. The licensee is now required to perform only an airlock seal leakage test when the airlock is opened while the plant is in the cold shutdown (Mode 5) or refueling (Mode 6) condition, provided no maintenance has been performed on the airlock. The licensee has revised procedure SP-181, Containment Air Lock Test (revision 17 dated January 27, 1987), to reflect the Appendix J exemption and will perform the airlock seal leakage tests in accordance with procedure SP-430, Containment Air Lock Seal Leakage Test.

(Closed) Violation 302/86-23-03: The licensee has issued Drawing Change Notice (DCN) 86-0241 and revised drawing FD-302-285 for the Emergency Diesel Generator (EDG) lube oil system. The drawing now depicts the correct system configuration. In addition, the Field Problem Report (FPR) process has been proceduralized by issuance of Administrative Instruction (AI) 410, Preparation and Handling of FPRs, dated January 30, 1987. This procedure will implement the DCN or modification design reviews if required. The inspector reviewed this procedure and considers that this action should be adequate to prevent similar violations from occurring.

(Closed) Violation 302/86-20-01: The licensee has completed and the inspector has verified the completion of the following actions:

Item a

- Procedure OP-404, Decay Heat Removal System, has been revised (revision 58, dated July 29, 1986) to address the control of valves DHV-110 and DHV-111 following restoration of reactor vessel level; and,
- All operations personnel have reviewed the response to this Violation.

Item b

- A Short Term Instruction (STI) dated December 12, 1986, was issued to operations personnel directing operators to not adjust the packing on safety related valves. The licensee has initiated a policy to allow only maintenance personnel to adjust valve packing on safety related valves except in an emergency. The licensee also revised procedure AI-600, Conduct of Maintenance (revision 34 dated March 16, 1987) to require documentation of valve packing adjustments.

Item c

- The snubber was visually inspected and fluid added. Procedure SP-201, Accessible/Inaccessible Hydraulic Snubbers Visual Inspection, has been revised (revision 19 dated September 23, 1986) to allow the addition of fluid during inspection and to document the addition of any fluid during performance of the procedure.

(Open) Violation 302/86-04-03: The licensee has completed and the inspector has verified the completion of the following actions:

- By May 28, 1986, all licensed operators had received special training to emphasize the requirement to push the reactor trip button after a reactor trip;
- The licensee has revised procedure AP-580, Reactor Protection System Actuation, step 6, to allow permissible options for the restoration of pressurizer level following a reactor trip;
- As part of the annual requalification training program, all licensed operators received training on the proper use of emergency and abnormal procedures; and,
- Procedure AI-400, Plant Operating Quality Assurance Manual Control Document (POQAM), has been revised (revision 67 dated December 9, 1986) to clarify the use of abnormal, emergency, and verification procedures.

As part of their corrective action the licensee has committed to review all plant Abnormal Procedures (AP) and Emergency Procedures (EP) to assure immediate actions, remedial actions and followup actions are in conformance with their revised Writer's Guide. The licensee plans to have this corrective action completed by November 30, 1987. This item will remain open pending the completion of the licensee's review of the APs and EPs.

(Closed) IFI 302/87-04-05: The licensee has completed the engineering evaluation for the stuck open discharge check valve (RWV-36). This evaluation compared the calculated flow rate through the nuclear services seawater (RW) heat exchangers with the valve stuck open with both emergency pumps running with the design flow rate through the heat exchangers. The evaluation concluded that even with the check valve stuck open, the heat exchangers would receive adequate cooling flow.

(Closed) IFI 302/86-35-06: The inspector reviewed the "Maximum Emergency Feedwater (EFW) Flow Rate" calculations performed by Babcock & Wilcox on 12/10/86 for the Crystal River plant. These calculations concluded that the maximum EFW flow limit can be increased to 305 GPM per nozzle or 1830 GPM per generator. Since this is in excess of the 1700 GPM experienced by the "B" Once Through Steam Generator (OTSG), this issue is considered to be resolved.

(Closed) Violation 302/85-21-02: In a letter dated June 21, 1985, that transmitted NRC Inspection Report 50-302/85-21, the NRC stated that the licensee's response to Violation 302/85-08-07 dated June 6, 1985, also addressed this Violation. This response was considered to be satisfactory and the corrective actions were verified as documented in NRC Inspection Report 50-302/86-27. Action on this item is considered to be complete.

(Closed) IFI 302/85-04-03: As the result of an engineering review it was determined that the modified governor design was not environmentally qualified and that to perform this qualification would be cost prohibitive. Therefore, the licensee has decided to not install the modified governor. To assure that the turbine shaft does not continue rolling after operation, as could occur if a turbine stop valve were to leak by the seat, the licensee requires operations personnel to verify that the shaft is not rolling on a shiftly basis. This requirement has been incorporated into procedure SP-300, Operating Daily Surveillance Log.

(Closed) IFI 302/86-20-05: The licensee conducted a walk down of the systems affected by temporary modification T80-06-80 entitled, Leave Non-Q Gauges in System, and determined that four improper fittings were installed. These fittings appear to have been installed during new construction and not by subsequent plant modifications. The fittings have been replaced with the correct fittings.

(Closed) IFI 302/84-09-01: Surveillance procedures SP-354A & B, Emergency Diesel Fuel Oil Quality & Diesel Generator Test, have been revised to require checking of the emergency diesel generator (EDG) fuel oil storage tanks by sounding the tanks.

(Closed) UNR 302/81-02-06: The licensee decided to not revise system flow diagrams and valve line-up check lists to include instrument valves. To provide control over these instrument valves, the licensee developed and implemented procedure SP-111, Valve Lineup Verification for Critical Instrumentation, in 1981. This procedure provides control of instrument isolation, equalization, drain, and vent valves after refuel outages and after maintenance activities on the applicable instrumentation.

(Closed) IFI 302/84-21-07: Procedure AP-1076, Violent Weather, has been revised so that EDG operation is not required during periods of violent weather. The option to run the EDGs, if required, is available to the Nuclear Shift Supervisor.

(Closed) IFI 302/80-39-04: An engineering evaluation indicated that the failure of the Auxiliary Building ventilation fan blades in 1978 and 1980 was caused by casting defects in the blades. To prevent the use of fan blades with casting defects, the licensee now performs Non-destructive Examination (NDE) on the blades prior to acceptance by FPC. No further fan blade failures have occurred.

(Open) IFI 302/80-42-06: The licensee has decided to replace valve SWV-10 with a valve of a different design thus preventing the slamming problem. Modification (MAR) 83-02-10-01, Replacement of SWV-10, is scheduled to be done during the refuel outage beginning September 19, 1987. This item remains open pending completion of this MAR.

(Closed) IFI 302/84-09-07: Surveillance procedure SP-456, Refueling Interval ES Manual & Automatic Actuators Functional Test, was revised so that the nomenclature used for the Engineering Safeguards (ES) status lights between this procedure and procedure SP-417, Refueling Interval Integrated Plant Response to Engineered Safeguards Actuation, are consistent.

(Closed) IFI 302/86-31-02: An engineering evaluation determined that a tolerance of $\pm 0.3\%$ is acceptable for the hydrogen (H_2) test gas concentrations. Procedures SP-160 A & B, Functional & Operability Check of the Containment Hydrogen Monitor WS-11-CE, have been revised to specify the use of this tolerance.

(Open) IFI 302/86-12-01: As a result of engineering reviews and testing on both nuclear services closed cycle cooling pumps (SWP-1A and SWP-1B)), the licensee determined that gas build-up in SWP-1B was occurring. To mitigate this build-up at the present time, vent valves were installed on the pump casings for both pumps and procedure SP-300, Operating Daily Surveillance Log, was revised so that operators are required to vent the pumps on a daily basis. A permanent solution will be to install a continuous venting system. A MAR (86-04-24-02) has been written to install this system during the upcoming refuel outage. This item remains open pending completion of this MAR.

(Closed) 302/86-27-01: Review of the annunciator Equipment-Out-Of-Service log was verified as accurate by the licensee on 11/26/86. All open links were properly addressed.

(Closed) 302/84-29-02: The licensee's site engineering group has reviewed the Agastat relay failures in the reactor coolant pump power monitors (RCPPM) and have decided to not replace the relays. Their investigation concluded that the failures were not generic to the relays and, based upon the fact that there have been no additional failures since January 1985, a relay replacement is not necessary.

(Closed) Violation 302/86-38-09: The inspector reviewed the licensee's response dated March 6, 1987, and verified that the following corrective actions have been implemented:

- A list has been developed of the refueling interval and semi-annual (or greater) interval procedures that includes the calculated due dates and their appropriate windows;
- Personnel monitoring the performance of surveillances are using the new surveillance listing until the new computer system is implemented;
- Licensee Event Report 86-20, revision 2, has been issued; and,
- Surveillance procedure SP-140, In-core Neutron Detector System Calibration, was completed by January 30, 1987.

(Closed) Violation 302/86-38-11: The inspector reviewed the licensee's response dated March 6, 1987, and verified that the following corrective actions have been implemented:

- LERs 86-26 and 86-27 were issued;
- Procedures SP-347, SP-351, SP-365, and OP-408 were revised to include monthly valve position verifications;
- Technical Specification (TS) interpretations were issued to provide a consistent interpretation of the TS surveillance requirements for valve position verifications; and,
- Compliance procedure CP-111, Procedure for Documenting, Reporting, and Reviewing Nonconforming Operations Reports (NCOR), was revised to change the responsibility for determination of reportability.

(Closed) IFI 302/84-02-09: There are presently 53 NCORs that are backlogged and are required to be reviewed by the Plant Review Committee (PRC). Of these 53 NCORs, 18 are from 1986 and the balance are from 1987. The oldest NCOR that must be reviewed is dated June 18, 1986. Control of the backlog and presentation of the NCORs to the PRC is made by the Nuclear Safety Supervisor (NSS). It is expected that this change in control of the NCOR process will continue to reduce the backlog.

4. Unresolved Items

Unresolved items were not identified during this reporting period.

5. Review of Plant Operations

The plant continued in power operation (Mode 1) for the duration of this inspection period.

a. Shift Logs and Facility Records

The inspector reviewed records and discussed various entries with operations personnel to verify compliance with the Technical Specifications (TS) and the licensee's administrative procedures.

The following records were reviewed:

Shift Supervisor's Log; Reactor Operator's Log; Equipment Out-Of-Service Log; Shift Relief Checklist; Auxiliary Building Operator's Log; Active Clearance Log; Daily Operating Surveillance Log; Work Request Log; Short Term Instructions (STI); and Selected Chemistry/Radiation Protection Logs.

In addition to these record reviews, the inspector independently verified clearance order tagouts.

No violations or deviations were identified.

b. Facility Tours and Observations

Throughout the inspection period, facility tours were conducted to observe operations and maintenance activities in progress. Some operations and maintenance activity observations were conducted during backshifts. Also, during this inspection period, licensee meetings were attended by the inspector to observe planning and management activities.

The facility tours and observations encompassed the following areas: security perimeter fence; control room; emergency diesel generator room; auxiliary building; intermediate building; battery rooms; and, electrical switchgear rooms.

During these tours, the following observations were made:

- (1) Monitoring Instrumentation - The following instrumentation or indication were observed to verify that indicated parameters were in accordance with the TS for the current operational mode:

Equipment operating status; area atmospheric and liquid radiation monitors; electrical system lineup; reactor operating parameters; and auxiliary equipment operating parameters.

No violations or deviations were identified.

- (2) Safety Systems Walkdown - The inspector conducted a walkdown of the Reactor Building Spray (BS) system to verify that the lineup was in accordance with license requirements for system operability and that the system drawing and procedure correctly reflect "as-built" plant conditions.

No violations or deviations were identified.

- (3) Shift Staffing - The inspector verified that operating shift staffing was in accordance with TS requirements and that control room operations were being conducted in an orderly and professional manner. In addition, the inspector observed shift turnovers on various occasions to verify the continuity of plant status, operational problems, and other pertinent plant information during these turnovers.

No violations or deviations were identified.

- (4) Plant Housekeeping Conditions - Storage of material and components and cleanliness conditions of various areas throughout the facility were observed to determine whether safety and/or fire hazards existed.

No violations or deviations were identified.

- (5) Radiation Areas - Radiation Control Areas (RCA) were observed to verify proper identification and implementation. These observations included selected licensee conducted surveys, review of step-off pad conditions, disposal of contaminated clothing, and area posting. Area postings were independently verified for accuracy by the inspectors. The inspectors also reviewed selected radiation work permits and observed the use of protective clothing, respirators, and personnel monitoring devices to assure that the licensee's radiation monitoring policies were being followed.

No violations or deviations were identified.

- (6) Security Control - Security controls were observed to verify that security barriers were intact, guard forces were on duty, and access to the Protected Area (PA) was controlled in accordance with the facility security plan. Personnel within the PA were observed to verify proper display of badges and that personnel requiring escort were properly escorted. Personnel within vital areas were observed to ensure proper authorization for the area.

During plant tours the inspectors noted that the licensee was having problems with the Closed Circuit Television (CCTV) system. The licensee was aware of this problem, has instituted compensatory measures as appropriate, and has developed a modification to correct the problem.

IFI (302/87-10-01): Review the licensee's activities to correct the problems with the security CCTV system.

- (7) Fire Protection - Fire protection activities, staffing and equipment were observed to verify that fire brigade staffing was appropriate and that fire alarms, extinguishing equipment, actuating controls, fire fighting equipment, emergency equipment, and fire barriers were operable.

No violations or deviations were identified.

- (8) Surveillance - Surveillance tests were observed to verify that approved procedures were being used; qualified personnel were conducting the tests; tests were adequate to verify equipment operability; calibrated equipment was utilized; and TS requirements were followed.

The following tests were observed and/or data reviewed:

- SP-112, Calibration of the Reactor Protection System (procedure review only);
- SP-113, Power Range Nuclear Instrumentation Calibration (procedure review only);
- SP-140, In-Core Neutron Detector System Calibration;
- SP-150, Operability & Functional Check of the Loose Parts Monitoring Subsystem;
- SP-300, Operating Daily Surveillance Log;
- SP-317, [RC] Reactor Coolant System Water Inventory Balance;
- SP-340A, "B" Train [ECCS] Emergency Core Cooling System Pump & Valve Operability (for test of the 1A Reactor Building Spray Pump);
- SP-605, Emergency Diesel Generator Engine Inspection/Maintenance; and,
- SP-702, Reactor Coolant & Decay Heat Daily Surveillance Program.

As a result of these reviews, the following items were identified:

- (a) After observing the performance of procedure SP-300, the inspector checked the adequacy of the procedure to implement Technical Specification (TS) required surveillances.

During this review it was noted that the procedure did not require a channel check of the following post accident monitoring instrumentation recorders: Power Range Nuclear Flux (NI-5-NR), Source Range Nuclear Flux (NI-9-NR), Reactor Coolant Outlet Temperature (RC-4-TR) and Borated Water Storage Tank Level (BS-65-PR). A review of TS 4.3.3.6 indicated that these recorders are required to have a channel check performed at least monthly.

From further review of the licensee's channel calibration procedures SP-112 and SP-113, it did not appear that recorders NI-5-NR and RC-13-FR (Reactor Coolant Total Flow Rate) were being calibrated at the quarterly and refueling frequency specified by TS 4.3.3.6. Procedure SP-112 specified that recorder NI-5-NR be calibrated on a refueling interval basis instead of the required quarterly interval and recorder RC-13-FR had apparently been omitted from the calibration procedures.

This matter was discussed with licensee representatives who were unable to provide the inspector with documentation that the channel checks and calibrations were being performed at the required frequencies. The licensee has subsequently revised procedure SP-300 to include shiftly channel checks for the recorders discussed above.

Failure to perform the required channel checks and channel calibrations of post accident monitoring instrumentation recorders is contrary to the requirements of TS 4.3.3.6 and is considered to be a violation.

Violation (302/87-10-02): Failure to perform the channel checks and calibrations on post accident monitoring instrumentation recorders as required by TS 4.3.3.6.

- (b) While observing the performance of procedure SP-150 the inspector noted that the newly installed Bently Nevada vibration detectors for the Reactor Coolant Pumps (RCP) were not included in this test. The licensee recently installed this equipment during the RCP shaft replacement outage which ended in June 1986. Although this instrumentation is not required by TS the licensee nevertheless takes routine shiftly readings on these detectors to verify proper pump operation. The licensee's engineering personnel were contacted to determine the required testing of these instruments to ensure their accuracy. It appears that these detectors receive a direct output from the vibration sensors mounted on the pump and are not

electrically biased like the rest of the Loose Parts Monitoring System instrumentation. Therefore these detectors need only be calibrated on a refueling interval basis to maintain their accuracy. The licensee is presently developing a maintenance procedure to perform this calibration.

IFI (302/87-10-03): Review the licensee's calibration procedure to calibrate the reactor coolant pump vibration detectors.

- (9) Maintenance Activities - The inspector observed maintenance activities to verify that correct equipment clearances were in effect; work requests and fire prevention work permits, as required, were issued and being followed; quality control personnel were available for inspection activities as required; and TS requirements were being followed.

Maintenance was observed and work packages were reviewed for the following maintenance activities:

- Gage calibration for the "A" Emergency Diesel Generator (EDG-1A) in accordance with procedure MP-407, Maintenance of Switchboard Meters and Associated Transducers for EDGs;
- Inspection of the blower rotor to housing clearances on EDG-1A in accordance with a Colt Information Letter and approved work instructions;
- Replacement and testing of relief valve DFV-35 in accordance with procedure SP-605;
- Troubleshooting and repair of a main feedwater block valve (FWV-30) in accordance with procedure MP-531, Troubleshooting Plant Equipment;
- Troubleshooting and repair of a high pressure injection throttle valve (MUV-25); and,
- Inspection and ultrasonic testing of the "C" high pressure injection pump (MUP-1C) in accordance with procedures MP-122, Disassembly and Reassembly of Flange Connections, and MP-126, Disassembly and Reassembly of Makeup Pumps.

During the inspection of the scavenging air blower on EDG-1A the inspector noted that the clearances obtained were less than those specified by the Colt Information Letter dated July 14, 1986. The scavenging air blower is used on the EDG to supply air for combustion and remove hot gasses after combustion.

This inspection was performed to detect unacceptable clearances between the blower's rotor and housing which could cause blower degradation and damage. Review of the results of this inspection on EDG-1B revealed similar indications. The licensee is contacting the manufacturer to determine if any corrective action is required for this condition.

IFI (302/87-10-04): Review the manufacturer's evaluation and recommendations for EDG blower clearances.

- (10) Radioactive Waste Controls - Solid waste compacting and selected liquid releases were observed to verify that approved procedures were utilized, that appropriate release approvals were obtained, and that required surveys were taken.

No violations or deviations were identified.

- (11) Pipe Hangers and Seismic Restraints - Several pipe hangers and seismic restraints (snubbers) on safety-related systems were observed to insure that fluid levels were adequate and no leakage was evident, that restraint settings were appropriate, and that anchoring points were not binding.

No violations or deviations were identified.

6. Review of Licensee Event Reports and Nonconforming Operations Reports

- a. Licensee Event Reports (LERs) were reviewed for potential generic impact, to detect trends, and to determine whether corrective actions appeared appropriate. Events, which were reported immediately, were reviewed as they occurred to determine if the TS were satisfied.

LERs 83-39, 83-49, 83-62, 86-20, 86-23, 86-25, 87-02, and 87-05 were reviewed in accordance with current NRC policy. LERs 83-39, 83-49, 83-62, 87-02, and 87-05 are closed.

(Closed) LER 83-49: This LER reported the failure to calibrate the temperature sensing elements for decay heat removal instrumentation due to a procedure inadequacy. The licensee has revised the calibration procedure SP-161 (revision 9 dated March 14, 1984) to include these elements.

(Closed) LER 83-62: This LER reported that the reactor building pressure recorder was inoperable following the performance of a plant modification. The licensee attributed the cause for this event to be an inadequate surveillance procedure SP-300, Operating Daily Surveillance Log, which did not require channel checks for the

recorder. Corrective action for this situation as stated in the LER consisted of revising procedure SP-300 to ensure the recorders listed in TS 3.3.3.6 are checked each shift. The inspector checked the current revision of procedure SP-300 to ensure that this action had been taken. Although the procedure required the reactor building pressure recorder to be checked on a shiftly basis, several other recorders specified in TS 3.3.3.6 were omitted from the procedure as discussed in paragraph 5.b(8)(a) of this report. When this matter was brought to the attention of licensee management, procedure SP-300 was revised so that all of the recorders specified by TS 3.3.3.6 were included.

(Closed) LER 87-05: LER 87-05 reported inadequacies in the surveillance testing of the engineered safeguards actuation logic. This matter was previously identified in NRC Inspection Report 50-302/87-04 and is being tracked as an unresolved item (302/87-04-03).

LER's 86-20, 86-23 and 86-25 remain open for the following reasons:

(Open) LER 86-20: This LER reported the failure to meet the required time interval for three consecutive 18 month surveillance tests. The licensee has issued a supplement to this LER dated April 6, 1987 which stated that the Master Surveillance Plan (SP-443) would be revised to ensure that the applicable scheduling is not dependent upon the prior performance date. This LER remains open pending revision to procedure SP-443.

(Open) LER 86-23: This LER reported operation outside the design basis of the plant due to the addition of unanalyzed D.C. loads. The licensee has installed a new battery to supply all switchyard D.C. loads important to the nuclear unit. The inspector observed part of the installation and testing of this new battery. The licensee has developed an administrative procedure (AP-18) for the non-nuclear engineering organization requiring nuclear engineering to review fossil plant modifications which may affect the operation of the nuclear unit. The licensee will also issue a management directive to groups that may interface with the nuclear plant to avoid impacting the operation of the nuclear unit. This LER will remain open pending the inspector's review of the management directive.

(Open) LER 86-25: This LER reported the lack of independent D.C. power sources for the 230 KV switchyard protective relays. The licensee has completed a design review to ensure that the existing design of the 230 KV switchyard meets the intent of the FSAR. In addition the FSAR will be revised to clarify the electrical system design reliability considerations. This LER will remain open pending revision to the FSAR.

- b. The inspector reviewed Nonconforming Operations Reports (NCORs) to verify the following: compliance with the TS, corrective actions as identified in the reports or during subsequent reviews have been accomplished or are being pursued for completion, generic items are identified and reported as required by 10 CFR Part 21, and items are reported as required by TS.

All NCORs were reviewed in accordance with the current NRC Policy.

- (1) NCOR 87-55 reported that a wire was disconnected from the control switch for a high pressure injection valve (MUV-25). This prevented closing of the valve from the main control board although local control and automatic engineered safeguards control of the valve was still possible. The licensee is presently investigating the cause for this situation.

IFI (302/87-10-05): Review the licensee's findings and corrective action for a disconnected wire from valve MUV-25.

- (2) NCOR 87-45 reported a plant runback which occurred from approximately 95% power during the performance of procedure SP-332, Monthly Main Steam Line and Feedwater Isolation Functional Test. This test actually strokes the main feedwater isolation valves in the closed direction for a short period of time. During this test a time delay relay failed to operate and allowed the main feedwater pump suction valve to close thereby tripping the "A" Main Feedwater Pump (FWP-2A). To prevent recurrence of this event the licensee plans to take the following corrective action:

- Change procedure SP-332 to require the operator to open the power supply breaker to the suction valve at approximately 80% open to stop valve motion and thereby prevent tripping the FWP;
- Writing a procedure to test the time delay relay prior to the performance of procedure SP-332, and,
- Evaluating whether the feedwater isolation actuation matrix should be changed to include a test light and signal blocking contact in lieu of actually stroking the feedwater valves.

IFI (302/87-10-06): Review the licensee's implementation of corrective action to prevent a plant runback during the performance of procedure SP-332.

- (3) NCOR 87-49 reported that chemistry calibration procedures were inadequate to properly restore equipment taken out of service for calibration. This resulted in a liquid radiation monitor being returned to service without the proper flow lineup. Although no TS requirements were missed in this case the possibility exists that future inadequate equipment restoration may violate TS requirements. To provide for an independent valve position verification the licensee plans to utilize equipment clearances to remove and restore this equipment for calibration.

IFI (302/87-10-07): Review the licensee's implementation of the use of equipment clearances to remove/restore equipment which is calibrated by chemistry procedures.

- (4) NCOR 87-47 reported that surveillance procedure SP-216, Sample Line Leak Rate Test, could not be performed due to a valve failure (CAV-252) in the system. This test was developed to meet a commitment the licensee made to the NRC to prove the leakage integrity of a system as discussed in section 2.1.6.a of NUREG 0578. This procedure performance was overdue as of March 17, 1987. The licensee is presently proceeding with the necessary procedure changes to allow performance of this test.

IFI (302/87-10-08): Review the licensee's progress for the performance of procedure SP-216.

- (5) NCORs 87-44 and 87-48 reported unmonitored releases to the Intermediate Building (IB) via the Post Accident Sampling System (PASS). Since the IB does not have monitors or filter systems to prevent releases to the environment, releases to this building are considered to be releases to the environment. The licensee's analysis of the releases for each of these events have indicated that no regulatory limits were exceeded.

To prevent recurrence of these events the licensee has isolated the PASS (however it is useable if necessary) and has performed a Low Pressure (LP) and High Pressure (HP) test in an attempt to identify the leakage source. The HP test did not identify any leakage, however the LP test identified a possible body-to-bonnet leak on relief valve CAV-491. The following actions are presently being taken:

- A work request (WR) has been written to replace the body-to-bonnet gasket, check for seat leakage, and check the lift setpoint on CAV-491;
- Temporary ventilation hoods are being installed over CAV-491 and a modulating valve, CAV-484, (which due to its method of operation could be a leak source) to prevent releases to the IB; and,

- A portable radiation monitor, RMA-15, will be moved to the IB near the location of these valves to assure any future leaks are detected. Further testing may be accomplished and a review remains in progress in an attempt to positively identify the source of leakage.

IFI (302/87-10-09): Review the licensee's progress to detect and repair leaks in the PASS.

7. Review of IE Information Notices

The inspector reviewed the licensee's actions with respect to the following IE Information Notices:

- 80-27, Degradation of Reactor Coolant Pump Studs;
- 82-06, Failure of Steam Generator Primary Side Manway Closure Studs; and,
- 86-108, Degradation of Reactor Coolant Pressure Boundary Resulting From Boric Acid Corrosion.

As a part of this review, the inspector also reviewed two Institute of Nuclear Power Operations (INPO) Significant Operating Experience Reports (SOER), 81-12 and 84-05, which also relate to the effects of boric acid corrosion.

In response to these notices and the SOERs, the licensee has developed procedures to periodically check the steam generator manway studs and revised their reactor coolant system hydrostatic test procedure (SP-204) to require the examination to include a check for the evidence of boric acid corrosion.

Following review of SP-204, the inspector noted that while the procedure requires a check for boric acid corrosion, the procedure may not detect all of the corrosive effects because the piping insulation is not removed. This observation was discussed with licensee personnel at which time a task force was formed by the licensee to determine whether the present boric acid monitoring program is adequate.

IFI (302/87-10-10): Review the activities of the task force developed to determine the adequacy of the boric acid corrosion monitoring program.

8. Preparations for Refueling

The inspector observed the licensee's receipt of new fuel shipments in preparation for the next refueling outage that is scheduled to begin in September 1987. Activities reviewed included new fuel receipt inspection and unloading and movement of the fuel assemblies to the dry fuel storage area. The following procedures were reviewed:

- FP-302, New Fuel Assembly Unloading, Inspection, Storage, and Container Reclosing; and,
- FP-304, Receiving New Fuel.

No violations or deviations were identified.