



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

Report No: 50-302/89-26

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

Docket No: 50-302

License No.: DPR-72

Facility Name: Crystal River 3

Inspection Conducted: October 7 - November 8, 1989

Inspectors: <u>S. Vias</u>	<u>11/27/89</u>
<i>for</i> P. Holmes-Ray, Senior Resident Inspector	Date Signed
<u>S. Vias</u>	<u>11/27/89</u>
<i>for</i> W. Bradford, Resident Inspector	Date Signed
<u>P. Madden, Project Engineer, Section 2B</u>	<u>11/27/89</u>
Date Signed	
Approved by: <u>R. Crenjak, Section Chief</u>	<u>11/27/89</u>
Division of Reactor Projects	Date Signed

SUMMARY

Scope:

This routine inspection was conducted by two resident inspectors and a project engineer in the areas of plant operations, security, radiological controls, maintenance and surveillance activities, safety system walkdowns, Licensee Event Reports and Nonconforming Operations Reports, design, design changes and modifications, followup of onsite events, post fire shutdown and licensee action on previous identified inspection findings. Numerous facility tours were conducted and facility operations observed. Some of these tours and observations were conducted on backshifts.

Results:

In the areas inspected, violations or deviations were not identified, but one non-cited violation was identified and discussed in paragraph 7. NCV 302/89-26-01, Failure to Fully Implement the Results of Postfire Shutdown Analysis for the Makeup System.

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REPORT DETAIL

1. Persons Contacted

Licensee Employees

- *J. Alberdi, Manager, Nuclear Site Support
- *W. Bandhauer, Superintendent, Nuclear Operations
- G. Boldt, Vice President Nuclear Production
- *P. Breedlove, Nuclear Records Management Supervisor
- *G. Castleberry, Supervisor, Nuclear Engineering
- *J. Cooper, Superintendent, Technical Support
- *R. Fuller, Senior Nuclear Licensing Engineer
- B. Hickie, Manager, Nuclear Plant Operations
- *S. Johnson, Manager, Site Nuclear Services
- *A. Kazemfar, Supervisor, Radiological Support Services
- *G. Longhouser, Superintendent, Nuclear Security
- *L. Loose, Nuclear Engineering Assistant
- *W. Marshall, Nuclear Operations Superintendent
- *P. McKee, Director, Nuclear Plant Operations
- *T. Metcalf, Nuclear Operations Engineer
- *R. Muzzi, Senior Nuclear Instrumentation and Control Engineer
- *S. Robinson, Superintendent, Nuclear Chemistry/Radiation Protection
- *V. Roppel, Manager, Nuclear Operations Maintenance and Outages
- *W. Rossfeld, Manager, Nuclear Compliance
- *J. Russell, Senior Nuclear Fire Protection Specialist
- *R. Schmiedel, Supervisor, Nuclear Engineering
- *P. Skramstad, Superintendent, Nuclear Chemistry/Radiation Protection
- *E. Welch, Manager, Nuclear Electrical/Instrumentation and Control Engineering Services
- *R. Widell, Director, Nuclear Operations Site Support
- *M. Williams, Nuclear Regulatory Specialist
- *K. Wilson, Manager, Nuclear Licensing

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

Other Organizations

D. Rhodes, Gilbert and Associates

*Attended exit interview

Acronyms and initialisms used throughout this report are listed in the last paragraph.

2. Review of Plant Operations (71707)

The plant was in cold shutdown till October 13, 1989, when it entered power operation (Mode 1) and continued in Mode 1 until October 26, 1989 when a shutdown was commenced upon declaration of an Unusual Event due to High Pressure Injection system inoperability. The plant was in hot shutdown on October 27, 1989 and returned to Mode 1 on November 1, 1989.

a. Shift Logs and Facility Records

The inspector reviewed records and discussed various entries with operations personnel to verify compliance with the Technical Specifications 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; Short Term Instructions; 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.

On October 12, 1989, the plant was brought critical at 1345 hours. Prior to restart the Assistant Shift Supervisor conducted a meeting in the control room with the licensed operators and other operating personnel.

The operators were given specific instructions and precautions and each operator was assigned specific functions and responsibilities. Operating Procedure OP-202 "Plant Heatup" was used to bring the reactor critical. The Shift Technical Advisor and Reactor Engineer were present and verified all calculations.

The startup was very smooth and orderly. The output breaker was closed at 0343 hours on October 13, 1989.

All licensee personnel performed their duties in a professional manner and appeared to be knowledgeable and well qualified.

The inspectors also observed conditions in the following areas:

(1) Monitoring Instrumentation

The following instrumentation and/or indications 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) 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.

(3) 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.

(4) Radiological Protection Program

Radiation protection control activities were observed to verify that these activities were in conformance with the facility policies and procedures, and in compliance with regulatory requirements. These observations included:

- Entry to and exit from contaminated areas, including step-off pad conditions and disposal of contaminated clothing;
- Area postings and controls;

- Work activity within radiation, high radiation, and contaminated areas;
- Radiation Control Area exiting practices; and,
- Proper wearing of personnel monitoring equipment, protective clothing, and respiratory equipment.

Area postings were independently verified for accuracy by the inspector. The inspector also reviewed selected Radiation Work Permits to verify that the RWP was current and that the controls were adequate.

No violations or deviations were identified.

(5) Security Control

In the course of the monthly activities, the inspector included a review of the licensee's physical security program. The performance of various shifts of the security force was observed in the conduct of daily activities to include: protected and vital area access controls; searching of personnel, packages, and vehicles; badge issuance and retrieval; escorting of visitors; patrols; and compensatory posts. In addition, the inspector observed the operational status of Closed Circuit Television monitors, the Intrusion Detection system in the central and secondary alarm stations, protected area lighting, protected and vital area barrier integrity, and the security organization interface with operations and maintenance.

No violations or deviations were identified.

(6) 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.

(7) Radioactive Waste Controls

Discharge of the Evaporator Condensate Storage Tank in accordance with OP-407A, was observed to verify that approved procedures were utilized, that appropriate release approvals were obtained, and that required surveys were taken. The operator controlling the discharge was knowledgeable of the procedure and alert to minor changes in flow rate. He performed the procedure in a professional manner.

No violations or deviations were identified.

3. Review of Maintenance (62703) and Surveillance (61726) Activities

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-113, Power Range Nuclear Instrumentation Calibration;
- SP-157A, Meteorological System Surveillance (daily);
- SP-158, Meteorological Monitoring Instrumentation Calibration;
- OP-202, Plant Heatup;
- SP-300, Operating Daily Surveillance Log;
- SP-321, Power Distribution Breaker Alignment and Power Availability Verification;
- SP-344C, Nuclear Services Containment Cooling System Supply Operability;
- SP-349A, Emergency Feedwater Pump (EFP-1) Monthly Operability Demonstration;
- SP-354B, Monthly Functional Test of the Emergency Diesel Generator, EGDG-1B;
- SP-405, Core Flooding System Check Valve Operation Demonstration;
- SP-422, RC System Heatup and Cooldown Surveillance; and,
- SP-620, Mechanical Exercising of BSV-26 and BSV-27.

In addition, 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:

- Rerun power supply cables from ES-MCC 3BB to AHF-22C in accordance with MAR 89-10-07-01, AHF-22C circuit modification;
- WR-253960, BSV-1, Building Spray Pump 1A suction check valve;
- 4160V SLUR relays in accordance with MAR 89-08-17-01;
- WR-253873, MSV-26 PORV; and,
- MP-149, Check Valve Can Removal and Reinstallation (Gasket Style).

On October 11, 1989, the inspector attended a maintenance planning meeting concerning Building Spray Pump 1A suction check valve (BSV-1). The maintenance consisted of a inspection and repair of BSV-1 seat disc. The valve had been found to have back leakage across the seat during the in service test program. The valve was tagged out of service under clearance number 89-10-093.

The personnel who attended the meeting consisted of craft personnel who would be working the valve, rad waste personnel, health physics personnel, inservice inspection engineer, the systems engineer, quality control and a senior reactor operator (SRO) who conducted the meeting. The SRO described the tag out boundaries by use of plant drawings and by a hand drawing on a chalk board. He discussed in detail the draining procedure and precautions. The meeting was very open with all personnel entering into the discussion.

This pre-maintenance meeting on safety-related and other critical components is a standard practice by the licensee. The inspector was impressed with the professional atmosphere and the interest displayed by the attendees. These pre-maintenance meetings should enhance the maintenance program as well as form a cohesiveness between all members of the repair party.

The maintenance was performed as planned and the valve was returned to service.

No violations or deviations were identified.

4. Safety Systems Walkdown (71710)

The inspector conducted a walkdown of the Emergency Feedwater 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.

5. Review of Licensee Event Reports (92700) and Nonconforming Operations Reports (71707)

Licensee Event Reports were reviewed for potential generic impact, to detect trends, and to determine whether corrective actions appeared appropriate. Events that were reported immediately were reviewed as they occurred to determine if the TS were satisfied. LERs were reviewed in accordance with the current NRC Enforcement Policy.

- (a) (Closed) LER 88-02: Feedwater Trip due to Technician Error Resulting in Emergency Feedwater Actuation and Subsequent Overspeed of Steam Driven Emergency Feedwater Pump. Revision 2 to this LER was issued on October 26, 1989 and documented the completion of the review of this event. Engineering review found that the Main Feed Pump should not have tripped on loss of governor control power. The cause of the MFP trip is indeterminate. The cause of the emergency feedwater pump overspeed was improperly throttled steam bypass valve. The bypass valve has been blocked and locked in position. This LER is closed.

- (b) (Closed) LER 89-28: This LER reports the omission of six containment isolation valves from the monthly containment integrity check procedure. Violation 89-19-02 was written citing the omission. Corrective action for the violation has been completed. This LER is closed.
- (c) (Open) LER 89-34: Personnel Errors by Architect Engineer Result in Plant Operation Outside Design Basis. This LER details two errors. The lack of separation between safety and non-safety circuits has been resolved by the installation of isolation fuses. The LER will remain open until the recommended Class 1E power is supplied to the referenced circuits scheduled for refuel 7. LER 89-34 will remain open.

No violations or deviations were identified.

6. Design, Design Changes and Modifications (37828)

Installation of new or modified systems were reviewed to verify that the changes were reviewed and approved in accordance with 10 CFR 50.59, that the changes were performed in accordance with technically adequate and approved procedures, that subsequent testing and test results met acceptance criteria or deviations were resolved in an acceptable manner, and that appropriate drawings and facility procedures were revised as necessary. This review included selected observations of modifications and/or testing in progress.

The following modification approval record (MAR) was reviewed and/or associated testing observed:

- MAR 89-11-01-01, RS Panel High Pressure Injection Instrumentation Rewire.

Modification MAR 89-11-01-01 was performed under Work Request WR-056052. This MAR involved changing flow indicator connective wiring for HPI flow instruments MU-23-F16-2 ("A" train), MU-23-15-2 and MU-23-F17-2 ("B" train), located on the Hot Shutdown control panel, so that the indicators were properly displayed on their respective panel positions.

The work was performed under Maintenance Procedure MP-405 Rev. 19, "Installing, Repairing and Terminating Control, Power and Instrumentation Cables". Post maintenance testing was accomplished by performing SP-169E, Rev. 2, "Makeup System Instrumentation Calibration". The inspector had no further questions.

7. POSTFIRE SAFE SHUTDOWN (64150)

On October 31, 1989 the licensee reported to the NRC that the breakers for three makeup system valves, MUV-9 discharge valve between HPI pumps A & B, MUV-69 suction cross connect valve between pumps A & B, and MUV-62 suction cross connect valve HPI pumps B & A, were found closed instead of being tagged open on their respective motor control centers as required

by the Crystal River 3 Appendix R Safe Shutdown Analysis. In addition, the licensee identified that the breakers had been in this condition since they were installed under a modification which was implemented during the 1985 refueling outage. In response, NRC Region II sent an inspector to Crystal River on November 7, 1989 to evaluate this event and its overall impact on postfire safe shutdown. Based on the inspector assessment, the event revealed that there are four plant areas (4160v 3B Switchgear Room, 4160v 3A Switchgear Room, Remote Shutdown Panel and Hallway Area, and the North Hallway on Elevation 119'-0" of the Auxiliary Building), outside of the cable spreading room and the control room, where a fire, under conservative licensee analysis assumptions, could have potentially caused a loss of RC makeup capability. The following summarizes the postulated fire condition and the changes in plant condition which would have had to occur as a result of the fire in order to assume a loss of charging/makeup capability:

4160v 3A Switchgear Room (FIRE AREA/ZONE CC-108-108)

The licensee in their analysis assumed that the train "B" Makeup Pump (1C) was out-of-service thus, requiring the swing Makeup Pump (1B) to be aligned to the "B" train. The postulated fire in the "A" 4160v Switchgear Room would have to damage the cabling to the train "A" Makeup Pump (1C) rendering it inoperable and cause valves MUV-62 and MUV-73 ("A" train BWST isolation valve) to spuriously operate and change from their normal open position to the full closed position. In order to cause valve movement certain conductors would have to electrically short together in multi-conductor cable MUC374 associated with valve MUV-62. After all these conditions are satisfied it is postulated that the postfire shutdown water source from the BWST to the operable swing makeup pump could be isolated.

4160v 3B Switchgear Room (FIRE AREA/ZONE CC-108-107)

The licensee in their analysis assumed that the train "A" Makeup Pump (1A) was out-of-service thus requiring the swing Makeup Pump (1B) to be aligned to the "A" train. The postulated fire in the "B" 4160v Switchgear Room would have to damage the cabling to the train "B" Makeup Pump (1C) rendering it inoperable and cause valves MUV-62 and MUV-69 to spuriously operate and change from their normal open position to the full closed position. In order to cause valve movement certain conductors would have to electrically short together in multi-conductor cable MUC380 or MUC379 (associated with valve MUV-69) and in cable MUC373 (associated with valve MUV-62). After all these conditions are satisfied it is postulated that the postfire shutdown water source from the BWST to the operable swing makeup pump could be isolated.

North Hallway (FIRE AREA/ZONE AB-119-6A)

The licensee in their analysis assumed that the train "B" Makeup Pump (1C) was out-of-service thus requiring the swing Makeup Pump (1B) to be aligned to the "B" train. The postulated fire in the north hallway panel area would have to damage the cabling to the train "A" electrical distribution system rendering the Makeup Pump (1A) inoperable and cause valves MUV-62, MUV-73 ("A" train BWST isolation valve), MUV-3 (Makeup Pump 1B Discharge Valve to Reactor Coolant Loop "B"), MUV-27 (Makeup Pump 1B Discharge Valve to Reactor Coolant Loop "A"), and MUV-9 to spuriously operate and change from their normal open position to the full closed position. After all these conditions are satisfied it is postulated that the postfire shutdown water source from the BWST to the operable swing makeup pump could be isolated and the discharge of the pump isolated from both Reactor Coolant Loops.

The licensee's Appendix R Postfire Safe Shutdown Analysis assumed that at the time the fire occurred, in any of the identified areas, that the swing makeup/charging pump would be in service and that one of the normal pumps would be out of service for maintenance and that the fire causes multiple makeup valves to go spuriously shut and isolate the suction side of the available pumps from the boroated source of water. For the areas identified, if the normal pumps are assumed to be operable makeup/charging is assured. However, the TS allow the licensee to operate with one Makeup Pump out of service without entering the TS LCO. The inspector reviewed the licensee's PRA Makeup Pump availability data for a specific plant operating period (7/1/85 to 1/10/88). During this period the plant operated 13,047 hours in modes 1 and 2. The inspector determined that during this period, while the plant was in modes 1 and 2, the "A" train Makeup Pump was out of service for a total of 531 hours or approximately 4% of the time. In addition, the inspector determined that the train "B" Makeup Pump was out of service during this period a total of 264 hours or approximately 2% of the time that the plant was in modes 1 and 2. The licensee's PRA data demonstrates that there were times of operation where, if a fire occurred within the subject areas of concern, the Makeup/Charging System could have been damaged by fire in such a manner that RCS makeup could have been rendered inoperable.

10 CFR 50 Appendix R, Section III G.1.a., requires one train of systems necessary to achieve and maintain hot shutdown conditions from either the control room or emergency control station(s) is free from fire damage. The licensee elected, in their Appendix R Postfire Safe Shutdown Analysis, to remove the power to valves MUV-9, MUV-62, and MUV-69 and maintain the valves in the open position in order to assure that these valves would not spuriously operate due to hot shorts, shorts to ground, or open circuits and thereby adversely affect the ability to achieve and maintain hot shutdown conditions. The licensee in the closeout of plant modification 82-10-19-07 failed to incorporate these changes in plant operating procedures. These required plant changes were necessary to comply with the Appendix R Analysis.

The licensee, upon discovery, took the appropriate actions and tagged and locked the breakers in the open position. In addition, the licensee initiated revision 42 to operating procedure OP-402, Makeup System, to assure that the breakers to the subject valves are maintained open and locked. At the time of the inspection the inspector did not review the procedural changes associated with this event since the procedure was in the licensee's review and approval process. Based on the PRA pump availability data, the postulated fire in any of the subject areas causing multiple spurious valve closures, the low fire load associated with the areas, the presence of early warning automatic fire detection capability in all these areas, and the corrective actions initiated and promptly put in place by the licensee, the inspector has determined that this violation meets the criteria for a Licensee Identified Violation as specified in section V.G.I of the NRC Enforcement Policy. This item will be tracked as NCV 50-302/89-26-01, "Failure to Fully Implement the Results of PostFire Shutdown Analysis for the MakeUp System."

8. Followup of On-Site Events (93702)

On October 25, 1989, with the reactor in Mode 1, an Unusual Event was declared when both trains of high pressure injection were determined to be inoperable. Flow meters indicating the flow in each of the four injection lines were found to be inaccurate in the low flow region below 200 gpm. Accurate indication of flow at low flow is needed so that the operator can balance flow in the four lines to insure adequate core cooling for a broken and pinched HPI line with only one HPI pump running. This need to balance flow is called for in procedure AP-380, Engineered Safeguards Actuation. The need to balance flow to insure core cooling only arises for a SBLOCA with HPI line pinch and only one HPI pump. Under this condition it is possible to not be able to determine which HPI line is broken so balancing the indicated flow in all four lines insures that adequate flow gets to the core for cooling. In all other SBLOCAs either the broken line is obvious or two HPI pumps are providing water and no operator action to balance is required. Also with flow greater than 500 gpm the installed instruments were of sufficient accuracy. These flow instruments were delta pressure transmitters across a flow nozzle. No square root extractors are in the loop, therefore the meter scales are not linear.

The Unusual Event was exited at 0925 hours, October 27, 1989, with the reactor in Mode 3. Babcock & Wilcox analysis indicated that in Mode 3 no operator action would be needed to balance HPI to insure core cooling.

The condition of low flow inaccuracy was recognized by the licensee when engineering reviewed the question of why these instruments were installed Category "D" instead of Category "A" as per, Regulatory Guide 1.97, since operator action to initiate a SBLOCA was based on the HPI flow instruments.

The documentation leading to the October 26, 1989, Unusual Event is as follows (all dates are 1989):

- May 5 - Memo from licensing to engineering stating the need to upgrade HPI flow instruments to Type "A", Category 1 based on preventing HPI pump runout by flow balancing.
- July 28 - Memo internal to engineering to document the weakness, in the then existing HPI flow indicators, outlined potential solutions and recommend turnover to the Design Basis Resolution Team. This memo refers to the HPI line break with a pinched HPI line scenario. It also points out that an upgrade to Type "A" is not sufficient, in that a scale change is needed, since the condition under which the instruments are needed to balance flow is less than 30 percent of scale.
- October 17 - B&W letter confirming the need for accurate low flow instruments and stating that no analysis was on record for HPI line pinch for CR-3.
- October 25 - An Engineering Problem Report was written which concluded that the HPI system may not provide adequate core cooling during a HPI line pinch break/quillotine break.
- October 26 - at 2200 hours, a Notice of Unusual Event was declared when licensee declared HPI system inoperable due to inaccurate flow meters.
- October 27 - at 0245 hours, the reactor entered Mode 3.
- October 28 - Licensee resolved to upgrade the accuracy of the Remote Shutdown panel HPI flow instruments and the HPI flow instruments on the redundant instrument panel in the control room.
- October 31 - Justification for Continued Operation, written to startup with more accurate HPI flow instruments, but not type "A", Category 1.
- October 31 - A conference call including NRR, Region II, Senior Resident Inspector and Licensee was conducted. The results of this call were that no startup restraint was placed on the licensee after review of the JCO.
- November 1 - Reactor plant returned on line at 0640 hours.

Followup action on this event will be contained in NRC inspection Report 50-302/89-28.

9. Licensee Action on Previously Identified Inspection Findings (92702 & 92701)

- a. (Closed) Violation 302/87-34-02, Failure to Adhere to the Requirements of Procedure MP-109 for Setting of Relief Valve Ring Settings as Required by TS 6.8.1.A.

As documented in NRC Inspection Report 302/88-01, the remaining corrective action to be verified was a proposed change to procedure MP-109 to provide a positive control of relief valve ring settings. MP-109 was reviewed and found to contain Quality Control hold points for positive verification of proper relief valve ring settings. This item is closed.

- b. (Closed) Violation 302/89-18-01, Part b: Failure to Verify Remote Position Indicators at the Remote Shutdown Panel.

The licensee's response dated August 21, 1989, denied this part of the violation. The basis for their denial was that the intent of IWV-3300 was to verify that the measured stroke time at a remote location was an accurate indication of the valve's actual stroke time, not to verify that a valve is properly feeding any remote indicating lights. The licensee's interpretation was additionally reinforced by ASME Code Interpretation IN 88-015, dated November 14, 1988. The licensee's position was concurred with as documented in by Region II's response dated October 17, 1989.

- c. (Closed) Violation 302/89-19-02, Failure to Verify Manual Valve Positions for Containment Penetrations.

The corrective action to verify the six manual valves was completed and the surveillance procedure was revised and validated. This item is closed.

- d. (Closed) IFI 302/86-38-01, Review Licensee's Activities to Repair Weld Weap Hole in Nut.

The licensee has a continuing effort to locate and eliminate radioactive gas leaks in the Auxiliary Building. The resident inspectors followed the progress of this effort as part of the routine inspection program. This item is closed.

- e. (Closed) IFI 302/87-10-09, Review the Licensee's Progress to Detect and Repair Leaks in the PASS.

A modification package has been written to modify the ventilation system in the Intermediate Building to provide a monitored release path for the penetration area on the 95 foot elevation. This modification is scheduled for completion in May 1990. This item is closed.

- f. (Closed) IFI 302/87-31-05, Check Valve Located Close to Source of Turbulence.

The concern reported in NRC Inspection Report 302/87-31 dealing with check valves located too close to a source of turbulence is part of a larger issue and is incorporated into the licensee's Check Valve Reliability Program. This program was developed in response to a NRC Bulletin and INPO SOERs all dealing with check valves. The program is on-going to insure check valve reliability. This item is closed.

10. Exit Interview (30703)

The inspector met with licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on November 7 and November 13, 1989. During this meeting, the inspector summarized the scope and findings of the inspection as they are detailed in this report.

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.

11. Acronyms and Abbreviations

AHF	-	Air Handling Fan
ASME	-	American Society of Mechanical Engineers
B&W	-	Babcock & Wilcox
BSV	-	Building Spray Valve
BWST	-	Borated Water Storage Tank
CCTV	-	Closed Circuit Television
CFR	-	Code of Federal Regulations
ES	-	Emergency Safeguards
HPI	-	High Pressure Injection
IFI	-	Inspector Followup Item
INPO	-	Institute of Nuclear Power Operations
IST	-	Inservice Test
JCO	-	Justification for Continued Operation
LCO	-	Limited Condition of Operations
LER	-	Licensee Event Report
MAR	-	Modification Approval Record
MCC	-	Motor Control Center
MFP	-	Main Feed Pump
MP	-	Maintenance Procedure
MU	-	Make Up
MUV	-	Make Up Valve
NRC	-	Nuclear Regulatory Commission
OP	-	Operating Procedure
PORV	-	Pressure Operator Relief Valve
RC	-	Reactor Coolant
RCA	-	Radiation Control Area
RS	-	Remote Shutdown
RWP	-	Radiation Work Permit
SBLOCA	-	Small Break Loss of Coolant Accident
SOER	-	Safety Operating Event Report

SLUR - Secondary Level undervoltage Relay
SP - Surveillance Procedure
SRO - Senior Reactor Operator
STI - Short Term Instruction
TS - Technical Specification
WR - Work Request