

REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *K. Harris, St. Lucie Vice President
- *G. Boissy, Plant Manager
- *R. Sipos, Service Manager
- *J. Barrow, Operations Superintendent
- *T. Dillard, Maintenance Superintendent
- J. Harper, QA Superintendent
- *C. Burton, Operations Supervisor
- R. Frechette, Chemistry Supervisor
- C. Leppla, I & C Supervisor
- *C. Pell, Technical Staff Supervisor
- *E. Wunderlich, Reactor Engineering Supervisor
- *H. Buchanan, Health Physics Supervisor
- W. White, Security Supervisor
- *B. Sculthorpe, Reliability and Support Supervisor
- *J. Barrow, Fire Prevention Coordinator
- R. Dawson, Assistant Plant Superintendent - Electrical
- *C. Wilson, Assistant Plant Superintendent - Mechanical
- *N. Roos, Quality Control Supervisor
- *F. Southworth, Assistant to Plant Manger, Turkey Point

Other licensee employees contacted included, technicians, operators, mechanics, security force members, and office personnel.

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on March 4, 1988, with those persons indicated in paragraph 1 above. The licensee did not identify as proprietary any of the materials provided to or reviewed by the inspectors during this inspection.

3. Licensee Action on Previous Enforcement Matters (92702)

(Closed - Unit 1) Violation 50-335/87-25-01 - Failure to maintain shield building door closed during mode changes. The licensee responded to this violation in letter L-88-81 dated February 19, 1988, committing to revise Operating Procedure OP 1-0030120, Pre-Start Check-Off, to add a signature slot for re-establishing vital areas prior to entering Mode 4 from Mode 5. The inspector reviewed the revised procedure and found it to be acceptable. Additionally, on-shift meetings were held with the operating staff advising them of the need for accurate and thorough review of shift

paperwork prior to mode changes. This violation was incorrectly entered on the Outstanding Items List (OIL) as 87-24-01. The correct number should be 87-25-01.

4. Plant Tours (Units 1 and 2) (71710)

The inspectors conducted plant tours periodically during the inspection interval to verify that monitoring equipment was recording as required, equipment was properly tagged, operations personnel were aware of plant conditions, and plant housekeeping efforts were adequate. The inspectors also determined that appropriate radiation controls were properly established, critical clean areas were being controlled in accordance with procedures, excess equipment or material was stored properly and combustible materials and debris were disposed of expeditiously. During tours, the inspectors looked for the existence of unusual fluid leaks, piping vibrations, pipe hanger and seismic restraint settings, various valve and breaker positions, equipment caution and danger tags, component positions, adequacy of fire fighting equipment, and instrument calibration dates. Some tours were conducted on backshifts.

The inspectors routinely conducted partial walkdowns of Emergency Core Cooling (ECCS) systems. Valve, breaker/switch lineups and equipment conditions were randomly verified both locally and in the control room. During the inspection period the inspectors conducted a complete walkdown in the accessible areas of Units 1 and 2 High/Low Pressure Safety Injection System, Auxiliary Feedwater System, and Chemical and Volume Control System to verify that the lineups were in accordance with licensee requirements for operability and equipment material conditions were satisfactory.

No violations or deviations were identified.

5. Unit Status

Both units continued to operate at 100% power during the inspection period. No major equipment failures occurred, and Unit 1 continued preparations for the upcoming refueling and spent fuel pool rerack.

6. Plant Operations Review (Units 1 and 2) (71707)

The inspectors, periodically during the inspection interval, reviewed shift logs and operations records, including data sheets, instrument traces, and records of equipment malfunctions. This review included control room logs and auxiliary logs, operating orders, standing orders, jumper logs and equipment tagout records. The inspectors routinely observed operator alertness and demeanor during plant tours. During routine operations, operator performance and response actions were observed and evaluated. The inspectors conducted random off-hours inspections during the reporting interval to assure that operations and security remained at an acceptable level. Shift turnovers were observed to verify that they were conducted in accordance with approved licensee



procedures. The inspectors performed an in-depth review of the following safety-related tagouts (clearances):

Unit 2

- 2-2-78 V 21307 -B Lube Water Isolation to A ICW [Intake Cooling Water] Pump - repair
- 2-2-86 Trip Circuit Breaker # 5 - PM [Preventive Maintenance]
- 2-2-89 Fire Zone 3F - install new sprinkler

Unit 1

- 1-2-97 Instrument Air In Fuel Handling Building - PC/M [Plant Change Modification]
- 1-2-128 1A Low Pressure Safety Injection Pump
- 1-2-129 1A High Pressure Safety Injection Pump

No violations or deviations were identified.

7. Technical Specification Compliance (Units 1 and 2) (71707)

During this reporting interval, the inspectors verified compliance with limiting conditions for operations (LCOs) and results of selected surveillance test. These verifications were accomplished by direct observation of monitoring instrumentation, valve positions, switch positions, and review of completed logs and records. The licensee's compliance with LCO action statements were reviewed on selected occurrences as they happened.

No violations or deviations were identified.

8. Maintenance Observation (62703)

Station maintenance activities of selected safety-related systems and components were observed/reviewed to ascertain that they were conducted in accordance with requirements. The following items were considered during this review; limiting conditions for operations were met, activities were accomplished using approved procedures, functional tests and/or calibrations were performed prior to returning components or systems to service; quality control records were maintained; activities were accomplished by qualified personnel; parts and materials used were properly certified; and radiological controls were implemented as required. Work requests were reviewed to determine status of outstanding jobs to assure the priority was assigned to safety-related equipment. The inspectors observed portions of the following maintenance activities:

Unit 1

PWO 4064 1A CCW Pump - PM
 PWO 4094 1A 125 VDC - weekly PM
 PWO 4842 Hydrogen Purge Fan - annual PM

Unit 2

PWO 2072 C Charging Pump Accumulator - check pressure
 PWO 2128 2A Emergency Diesel Generator - PM
 PWO 21270 Fire Hose Stations - PM

No violations or deviations were identified.

9. Review of Nonroutine Events Reported by the licensee (Units 1 and 2)
 (90712)

The following 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 also reviewed as they occurred to determine that technical specifications were being met and that the public health and safety were of utmost consideration. The following LERs are considered closed:

Unit 1

LER 87-17 Reactor trip due to reactor protective system HI start-up rate B channel and the loss of 1MD 120 VAC instrument bus due to personnel error. (ref. Inspection Report 50-335/87-31)

Unit 2

LER 87-07 Reactor trip on loss of load caused by main generator exciter bearing failure. (ref. Inspection Report 50-389/87-24)

LER 87-08 Oil fire at reactor coolant pump due to oil leak from loose packing gland on instrument isolation valve. (ref. Inspection Report 50-389/87-24)

Non-routine plant events were reviewed for potential generic impact, to detect trends, and to determine whether corrective actions appeared appropriate. Events which were reported immediately were also reviewed as they occurred to determine that technical specifications were being met and that the public health and safety were of utmost consideration.



10. Physical Protection (Units 1 and 2) (71881)

The inspectors verified by observation and interviews during the reporting interval that measures taken to assure the physical protection of the facility met current requirements. Areas inspected included the organization of the security force, the establishment and maintenance of gates, doors and isolation zones in the proper conditions, that access control and badging was proper, and procedures were followed.

No violations or deviations were identified.

11. Surveillance Observations (61726)

During the inspection period, the inspectors verified plant operations in compliance with selected technical specification (TS) requirements. Typical of these were confirmation of compliance with the TS for reactor coolant chemistry, refueling water tank, containment pressure, control room ventilation and AC and DC electrical sources. The inspectors verified that 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 accomplished, test results met requirements and were reviewed by personnel other than the individual directing the test, and that any deficiencies identified during the testing were properly reviewed and resolved by appropriate management personnel. The inspectors observed the following surveillance(s):

Unit 1

AP 1-0010125A	1A Charging Pump - Monthly Code Run Data Sheet 16
HP-45	Portal Monitor Weekly Response Check
HP-67	Air Sample Data Sheet

Unit 2

AP 2-0010123	Valve, Switch Deviation Log Appendix C
OP 2-0030151	Remote Shutdown Instrumentation Periodic Channel Check
OP 0120026	Reactivity - Deviation From Design

No violations or deviations were identified.

12. Natural Circulation Cooldown (25586)

During this inspection period, the licensee's actions to implement Generic Letter 81-21, Natural Circulation Cooldown were reviewed. This review included the following documents:

LER 389-85-008, Reactor Trip Due To Spurious Engineered Safety Features Actuation Signal

LER 335-77-26, Off-Site Power

FPL TECH PSL Ltr Bk #74 St. Lucie plant transient of 6/11/80, Natural Circulation Cooldown

SLP Lesson Plan DN #09-02807 Rev. 1, Loss of Forced Circulation Natural Circulation Cooldown

SLP Lesson Plan DN #09-02808 Rev. 0, Functional Recovery Procedure

SLP Handout 09-10807, Rev. 1, Natural Circulation Cooldown

SLP Handout 09-10808, dated 5/11/87, Functional Recovery Procedure

SRO OJT-A06 Training Program, Emergency Shift Activation

SRO OJT-A06, Instructor Aid

SRO OJT-Guide 095107, Rev. 1, Blackout

SRO OJT-Guide 095107, Rev. 1, Instructor Aid

SRO OJT-Guide OJT A08, Emergency Shift Activities

SRO OJT-Guide OJT A08, Instructor Aid

SRO OJT-Guide OJT B01, Off-Normal Conditions

SRO OJT-Guide OJT B01, Instructor Aid

SLP Simulator Exercise Guide 009-IL-E, Loss of Forced Circulation

SLP Simulator Exercise Guide 024-IL-P, Loss of Forced Circulation

SLP Lesson Plan 09-02823, Rev. 2, Loss of Forced Circulation, Natural Circulation Cooldown Lesson #823

SLP Lesson Plan 07-02828, dated 7/28/87, Functional Recovery Procedure

SLP Lesson Plan 07-11828, dated 7/28/87, Functional Recovery Procedure

Module PSL R20-30, Recovery From Loss of Forced Circulation Units 1 and 2

Module PSL R20-31, Response to Total Loss of Alternating Current Power Units 1 and 2

Module PSL R20-32, Response to Loss of Off-Site Power Units 1 and 2

Module PSL R20-33, Implement Functional Recovery Procedure Units 1 and 2

Simulator Requalification Training, March - May 1987

Hot License Training, September - October 1986 - CE Simulator Training

SRO and Hot License Training, October - December 1986 - CE Simulator Training

Emergency Procedure 1-0030140, Rev. 32, Blackout Operations (BO)

Emergency Procedure 2-0030140, Rev. 13, Blackout Operations (BO)

Emergency Procedure 1-0030143, Rev. 9, Total Loss of AC Power (TLOP)

Emergency Procedure 2-0030143, Rev. 12, Total Loss of AC Power (TLOP)

Emergency Operating Procedure 1-EOP-07, Rev. 0., Loss of Forced Circulation

Emergency Operating Procedure 2-EOP-07, Rev. 0., Loss of Forced Circulation

Emergency Operating Procedure 1-EOP-08, Rev. 1, Functional Recovery

Emergency Operating Procedure 2-EOP-08, Rev. 0., Functional Recovery

Off Normal Operating Procedure 1-0120039, Rev. 4, Natural Circulation Cooldown

Off Normal Operating Procedure 2-0120039, Rev. 4, Natural Circulation Cooldown

CEN-152, Rev. 2, Combustion Engineering Emergency Procedure Guidelines

The inspector determined from the review of training records that the training includes both classroom and simulator training on natural circulation cooldown. The above training is included in RO and SRO initial certification training and in the operator requalification program. Additionally, the procedures were reviewed to ensure that they followed the Combustion Engineering Owners Group Guidelines with respect to step content, specific plant parameters had been added, cooldown rates subcooling temperature limitations, hold points for reducing head temperatures, and that step deviations are documented.

During the review of 1-0120039 and 2-0120039, Natural Circulation Cooldown, the inspector noted that the 20.4 hour soak at 325 degrees F, although mentioned in the Purpose and Discussion section of the procedure and indicated on an attached figure, was not mentioned in the instructions section. The licensee indicated that a review would be conducted to determine if the soak is still required, and if so the procedure will be modified accordingly. This will be an inspector follow-up item pending review of the procedure, IFI 50-335; 389/88-03-01.

Emergency Operating Procedures 1-EOP-08 and 2-EOP-08, Functional Recovery contain incorrect acceptance criteria in Step 4.h: Verify Containment Combustible Gas Control by The correct criteria should be Containment Hydrogen Concentration <5%. This will be an inspector follow-up item pending correction of these procedures. IFI 50-335; 389/88-03-02.

Temporary Instruction TI2515/86 is closed for both units

13. Outstanding Items List Closeout Actions

(Closed Units 1 and 2) Temporary Instruction TI2500/19 - Inspect licensee's actions taken to implement UNR safety issue A-26: reactor vessel pressure transient protection for PWRs. This issue was discussed at length in inspection report 50-335/87-18 and 389/87-17, but was not closed due to administrative error.

14. Unit 2 License Conditions

In a letter dated November 3, 1987, from the Regional II Chief, Technical Support Staff, Division of Reactor Projects, the resident inspector was requested to perform a field verification to confirm the licensee's implementation of certain license conditions and to document the findings in a routine monthly inspection report. These license conditions and discussion of each follows:

2.C.12 Heavy Loads (Section 9.1.4 SSER 3)

Prior to startup following the first refueling outage, the licensee shall conform to the guidelines of Section 5.1.1. of NUREG-0612 and prior to thirty days of startup following the second refueling outage, the licensee shall have made commitments acceptable to the NRC regarding the guidelines of Section 5.1.2 through 5.1.6 of NUREG-0612.

Action: Regarding the guidelines of Section 5.1.2 through 5.1.6 of NUREG-0612, prior to thirty days of startup following the second refueling outage, commitments acceptable to NRC will be made. This portion of the license condition needs to be verified.

Discussion:

The inspector reviewed Administrative Procedure AP 0010438, Rev. 8, Control of Heavy Load Lifts and Transporting of Heavy Loads, and found it acceptable with regard to the guidelines of NUREG-0612. Additionally, this AP references the following plant procedures:

- 1-M-0015 - Reactor Vessel Maintenance-Sequence of Operations
- M-0020 - Lifting of the Spent Fuel Gate
- M-0021 - Lifting of the Pressurizer Missile Shield
- M-0022 - Handling of Spent Fuel Casks
- M-0023 - Handling of the ISI Tool
- 2-M-0036 - Reactor Vessel Maintenance-Sequence of Operations

These procedures were also reviewed and found to be acceptable.

2.C.17 NUREG-737 Conditions (Section 22, SER, Section 13.3, SSER 3)

Item a.2. The licensee shall maintain interim emergency support facilities (Technical Support Center, Operations Support Center and the Emergency Operations Facility) until the upgraded facilities are completed.

Discussion

These permanent facilities have been in operation since 1982, and have been tested during the first Full Field Exercise and several other emergency exercises.

Item f. Inadequate Core Cooling Instrumentation (II.F.2., SSER 1)

The licensee shall have:

- a. The final design core exit thermocouple (CET) system installed with displays in the Qualified Safety Parameter Display System (QSPDS) cabinets, by initial criticality.
- b. The Instrumentation necessary to monitor and display subcooling margin installed in the QSPDS cabinets and operable by initial criticality.
- c. The heated junction thermocouples (HJTC) installed in the OSPDS cabinets and operable by June 1983.

Discussion

All of the above conditions exist and have been proven accurate and reliable through daily tours by the resident inspector.

The resident inspector feels that there is sufficient history and evidence to delete these license conditions in a future license amendment.

