

DETAILS

1. Persons Contacted

Licensee Employees

- *C. M. Wethy, Plant Manager
- *B. J. Escue, Site Manager,
- *J. H. Barrow, Operations Superintendent
- *J. E. Bowers, Maintenance Superintendent
- *D. A. Sager, Operations Supervisor
- N. G. Roos, Quality Control Supervisor
- R. R. Jennings, Technical Department Supervisor
- *H. F. Buchanan, Health Physics Supervisor
- J. G. West, Security Supervisor
- O. D. Hayes, Nuclear Plant Supervisor
- L. W. Pearce, Nuclear Plant Supervisor
- C. L. Burton, Nuclear Plant Supervisor
- A. W. Bailey, Quality Assurance Supervisor

Other licensee employees contacted included construction craftsmen, technicians, operators, shift technical advisors, security force members, and office personnel.

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on August 12, 1982, with those persons indicated in paragraph 1 above. Licensee representatives acknowledged their understanding of the findings.

3. Licensee Action on Previous Inspection Findings

Not inspected.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Maintenance Observation

Station maintenance activities of safety-related systems and components listed below were observed/reviewed to ascertain that they were conducted in accordance with requirements. The following items were considered during this review: that the limiting conditions for operation were met; that activities were accomplished using approved procedures; that functional testing and/or calibrations were performed prior to returning components or systems to service; that quality control records were maintained; that activities were accomplished by qualified personnel; that parts and

materials used were properly certified; and that radiological controls were implemented as required. Work requests were reviewed to determine status of outstanding jobs and to assure that priority is assigned to safety-related equipment maintenance which may affect system performance. The following maintenance activities were observed/reviewed:

- a. Plant Work Order 2809 - 1A Charging Pump Relief Valve. Valve was removed, repaired, retested and replaced.
- b. PWO-2811-1C Charging Pump. Pump was Repacked.

No violations or deviations were identified in this area.

6. Surveillance Observation

During the inspection period, the inspector verified plant operations compliance with at least sixteen different technical specification requirements. Typical of these was confirmation of compliance with the Technical Specification for reactor coolant system leakage, reactor coolant chemistry, refueling water tank, containment pressure, control room ventilation and AC and DC electrical sources. The inspector verified that testing was performed in accordance with adequate procedures, test instrumentation was calibrated, limiting conditions for operation were met, removal and restoration of the affected components were properly 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.

No violations or deviations were identified in this area.

7. Operational Safety Verification

The inspector observed control room operations, reviewed applicable logs, and conducted discussions with control room operators during the report period. The inspector verified the operability of selected emergency systems, reviewed tagout records, and verified proper return to service of affected components. Tours of the reactor, auxiliary, and turbine buildings were conducted to observe plant equipment conditions, including potential fire hazards, fluid leaks, and excessive vibrations and to verify that maintenance requests had been initiated for equipment in need of maintenance. The inspector by observation and direct interview verified that the physical security plan was being implemented in accordance with station security plan.

The inspector observed plant housekeeping/cleanliness conditions and verified implementation of radiation protection controls. The inspector walked down the accessible portions of the chemical and volume control system to verify operability. The inspector also witnessed portions of the radioactive waste system controls associated with radwaste shipments.

On 8/5/82 the resident inspector was conducting a routine audit of equipment clearances and noted incorrect identification of two valves on clearance number 1-8-30 for repacking of the "A" charging pump. The clearance listed the suction drain valve V-2320 and the discharge drain valve V-2332 to be "open". These valves are the drain valves on the "B" charging pump. The correct valves for the "A" pump are V-2317 and V-2329. Inspection of the "A" charging pump showed the correct valves (V-2317, V-2329) were open and tagged, but the tags improperly identified them as V-2320 and V-2332. The valves themselves had no label plates in place to aid in correctly identifying them. This lack of valve/component identification is a strong contributing factor to improper valve lineups.

Another contributing factor noted is the lack of independent verification (second check) of the written tagging order (clearance) itself. In this case, the clearance directed the operator to tag incorrect valves. A similar violation was identified previously in IE Report 50-335/82-04. This item is an example of failure to properly implement procedures in accordance with Technical Specification 6.8.1 (335/82-11-01).

No other violations or deviations were identified in the area.

8. IE Bulletins

The following IE Bulletins were reviewed to determine whether they had been received and reviewed by appropriate management, responses, where necessary, were accurate and complete, and the action taken, if required, was complete.

(Closed-Unit 2) IE Bulletin 78-01 - Flammable Contact Arm Retainers In GE CR 120A Relays. This report updates previous report 389/78-06 which stated that the licensee would use relays with contact arm retainers made of Valox material. The licensee has confirmed and reaffirmed in a memo to file PSL-2-82-384 (File 430.3.1) that the valox material is used. the inspector had no further questions at this time.

(Closed-Unit 2) IE Bulletin 79-15 - Deep Draft Pump Deficiencies

On September 10, 1979, the licensee submitted its response to IEB 79-15 (FPL letter L-79-249). On December 11, 1981, USNRC (NRR/Tedesco-Uhrig) asked that FP&L supplement St. Lucie Unit 2 PSAR Section 3.9.3 to address long-term operability of these pump. IEB 79-15 was referenced in this letter. Subsequently, a R. C. Lewis memo dated June 23, 1982 and a Vollmer, NRR, Memo dated June 22, 1981 stated that this subject will be included in normal licensing reviews. These pumps are indeed included in St. Lucie Unit 2 FSAR, Revision 10, Section 3.9.3.2.3. The inspector had no further questions at this time.

(Open-Unit 2) IE Bulletin 79-24 - Frozen Lines. This report updates earlier reports 389/80-01 and 389/80-16. The inspector reviewed FP&L to NRC letters L-82-310 and L-79-296 responding to this IEB, previous IE inspection reports and various licensee-architect/engineer correspondence. These documents show that an engineering review was made in a timely manner. The licensee's

review resulted in a list of instrument lines located outdoors that should be insulated with fiberglass. This work has not been completed on Unit 2. IEB 79-24 remains open pending completion of the work.

IE Circulars

The following IE Circulars were reviewed to determine whether they had been received by station management, reviewed for applicability and appropriate action had been taken or planned:

(Closed-Unit 2) IE Circular 77-03 Fire Inside a Motor Control Center - Closed based on licensee evaluation that the St. Lucie 2 motor control centers are not similar to those described in the circular and that bus insulation is qualified to UL Standard No. 94. The inspector verified that the stab connections in St. Lucie's motor control centers are configured such that poor contact is highly unlikely. The inspector had no further questions.

(Closed-Unit 2) IE Circular 77-10 "Vacuum Conditions Resulting in Damage to Liquid Tanks." Administratively closed based on this IE Circular being subsequently included in IE Bulletin 80-05.

(Closed-Unit 2) IE Circular 78-12-HPCI Turbine Control Valve Lift Rod Bending. This circular is not applicable to St. Lucie because the equipment configuration referred to is confined to certain BWRs. This finding is incorporated into the body of the circular itself.

(Closed-Unit 2) IE Circular 78-14 - HPCI Turbine Reversing Chamber Hold Down Bolting. This circular addresses certain bolts used on certain two-stage turbines at BWR facilities. The body of the circular concludes that smaller turbines incorporating a single wheel are not involved. Since St. Lucie Unit 2 uses a single stage turbine, this IE circular is not applicable.

(Closed-Unit 2) IE Circular 79-11 Design/Construction Interface Problem. This report update previous report 389/79-12. The licensee has re-reviewed this IEC and concluded that the NSSS Vendor and Architect/Engineer have formal processes for interface control. The inspector has no further questions in this area.

10. Information Notices

The following IE Information Notices were reviewed to ensure their receipt, review by appropriate management and appropriate action initiated:

(Closed - Unit 2) IE Notice 79-16 - Nuclear Incident at Three Mile Island - This IE notice was originally sent to research and test reactors, IE Bulletin 79-06 being sent to power reactors. This IE Notice is closed.

(Closed - Unit 2) IE Notice 79-17 - Source Holder Assembly Damage from Misfit Between Assembly and Reactor Upper Grid Plate. Closed based on

licensee evaluation that this IE Notice applies to Westinghouse PWR facilities only. The inspector concurs.

(Closed - Unit 2) IE Notice 79-19 - Pipe Cracks in Stagnant Borated Water Systems at PWR Plants. The licensee evaluated this IE Notice as being included in subsequent IE Bulletin 79-17. The inspectors concurs.

(Closed Unit 2) IE Notice 79-20 and 79-20 (Rev. 1) - NRC Enforcement Policy-NRC licensed individuals. The licensee has evaluated this IE Notice and concluded that no specific action is needed since it served to inform licensees of a revised enforcement policy at the time of issuance. The inspector agrees.

(Closed - Unit 2) IE Notice 79-21 - Transportation and Commercial Burial of Radioactive Material. This IE Notice, which is supplemental to IE Bulletin 79-19, has also been supersede by IE Notice 80-24.

(Closed - Unit 2) IE Notice 79-24 - Overpressurization of the Containment of a PWR after a Main Steam Line Break. This IE Notice has been superseded by IE Bulletin 80-04 issued February 8, 1989.

(Closed - Unit 2) IE Notice 79-30 - Reporting of Defects and Noncompliances, 10CFR Part 21. The licensee has evaluated this IE Notice as being previously inspected during Inspections 389/79-22 and 389/80-11 which addressed 10CFR-21 procedures. This inspector agrees.

(Closed - Unit 2) IE Notice 79-32 Separation of Electrical Cables for HPCI and ADS. This problem has been identified by the Notice as possibly generic to BWRs. The notice also states that further action would be specifically requested by IE Bulletin or Circular. The licensees review and memo-to-file PSL-2-82-308 (File L-310.4.3) appear to satisfy this IE Notice.

(Closed - Unit 2) IE Notice 79-36 - Computer Code Defect In Stress Analysis of Piping Elbow. Closed based on licensee investigation that shows that the subject computer program is not used by the licensee's A/E, and that the A/E's standard practice is to verify the design (computer) program with each design.

(Closed - Unit 2) IE Notice 80-02 - 8x8 Water rod Lower End Plug Wear - This IE Notice applies only to certain BWRs. The inspector had no further questions.

(Closed - Unit 2) IE Notice 80-04 - BWR Fuel Exposure in Excess of Limits. This IE Notice applies only to certain BWRs. The inspector had no further questions.

(Closed - Unit 2) IE Notice 80-20 - Loss of Decay Heat Removal Capability of Davis-Besse Unit 1 While in a Refueling Mode. Administratively closed due to incorporation in IE Bulletin 80-12.

(Closed - Unit 2) IE Notice 80-27 - Degradation of Reactor Coolant Pump Studs. Administratively closed based on incorporation in IE Bulletin 82-02.

(Closed - Unit 2) IE Notice 80-30 - Potential for Certain Control Air-Scram Problems at Certain GE BWRs - This IEN is not applicable to St. Lucie.

(Closed - Unit 2) IE Notice 80-37 - Containment Cavity Leaks and Reactor Cavity Flooding at Indian Point Unit 2. Closed based on subsequent inclusion in IE Bulletin 80-24.

(Closed - Unit 2) IE Notice 80-40 - Excessive N₂ Pressure Actuates Safety Relief Valve to cause Reactor Depressurization. This IEN was subsequently included in IE Bulletin 80-25. The IEN is therefore administratively closed.

(Closed - Unit 2) IE Notice 80-45 - Potential Failure of BWR Backup Manual Scram Capability - Closed based on being applicable to the systems at BWRs only.

(Closed - Unit 2) IE Notice 81-11 - Alternate Rod Insertion for BWR Scram Represents a Potential Path for Loss of Primary Coolant. Closed because of its applicability to BWR plants only.

(Closed - Unit 2) IE Notice 81-12 - Guidance on a NRC order of January 9, 1981. Closed due to its applicability to BWRs only.

(Closed - Unit 2) IE Notice 81-13 - Jammed Source Rack in a Gamma Irradiator. Closed as not applicable. St. Lucie is not an Irradiator licensee.

(Closed - Unit 2) IE Notice 81-16 - Control Rod Drive System Malfunctions - Closed due to its applicability to BWR control system only.

(Closed - Unit 2) IE Notice 81-18 - Excessive Radiation Exposures to the fingers during cleaning and wipe testing of radioactive sealed sources at a sealed source manufacturing facility - Closed as not applicable to St. Lucie. The Notice applies only to certain manufacturers of sealed sources.

(Closed - Unit 2) IE Notice 81-22 - Section 235 and 236 Amendments to the Atomic Energy Act of 1954. This notice was reviewed by the licensee and found to be purely informational in nature, announcing changes to the act regarding sabotage and protection of inspectors. This inspector agrees and has no further questions on this notice.

(Closed - Unit 2) IE Notice 81-37 - Unnecessary Radiation Exposure to Public and Workers during Events Involving Thickness and Level Measuring Devices. The licensee reviewed this notice and concluded that it is applicable to by-product licensees only, not power reactors. This inspector agrees.

(Closed - Unit 2) IE Notice 82-05 - Increasing Frequency of Drug Related Incidents. The licensee has reviewed this notice and concluded that no specific action is required.

(Closed - Unit 2) IE Notice 82-06 - Failure of Steam Generator Primary Side Manway Closure Studs - Administratively closed due to inclusion in IE Bulletin 82-02.

(Closed - Unit 2) IE Notice 82-15 - Notification of the Nuclear Regulatory Commission (NRC) - This notice informs licensees of a change in the NRC phone number to be used if the ENS fails.

(Closed - Unit 2) IE Notice 82-24 Water Leak from Uranium Hexafluoride Over Packs. This IE Notice addresses a condition found during shipment of partially processed uranium, a situation not applicable to power reactors.

11. Plant Tours (Unit 2) (71302)

The inspector conducted frequent tours of Unit 2 observing activities in progress regarding fire protection, housekeeping, equipment preservation, abuse of installed instrumentation, cable pulling security, and general construction progress.

No violations or deviations were identified in this area.

12. Operational Staffing (36301B)

The inspector reviewed in part, the status of operational staffing in preparation for an operating license for St. Lucie Unit 2. Literature reviewed included:

- St. Lucie Unit 2 FSAR, Section 13 (Amendment 11).
- Topical Quality Assurance Report, Draft Revision 5.
- Standard Technical Specifications for CE Plants, Section 6 dated December 22, 1981.
- Safety Evaluation Report, St. Lucie Unit 2, NUREG 0843, Section 13.

a. Basis for Staff Qualifications

In Section 3.1.3 of the St. Lucie 2 FSAR, the licensee committed to comply with Regulatory Guide 1.8, September 1975 and ANS 3.1 - 1978. The inspector checked for inclusion of these items in the QA Topical Report and draft Technical Specifications. The licensee stated during the inspection that section 6 of the Technical Specifications would reflect ANS 3.1. The inspector identified that draft revision 5 to the QA Topical Report did not include reference to ANS 3.1 - though it did reference the predecessor standard - ANSI 18.1 - 1971. The licensee's evaluation of possible corrective actions is affected by impending

Technical Specification review meetings. The inspector will followup this item (389/82-34-01).

b. Operating Organization Staffing - Organizational Structure

The inspector verified that the operational and technical support structures were close to St. Lucie 2 FSAR Rev.1 Figure 13.1.1 and Section 6 of the proposed St. Lucie 2 Technical Specification. Since the utility is moving many technical persons from the corporate office to the new engineering office and has reorganized somewhat, the minor differences are expected.

c. Operating Organization Staffing - Staffing Progress

The inspector reviewed staffing progress in accordance with Table 13.1-1 of the Unit 2 FSAR. That table is identified as amendment seven. Staffing progress to date and projected through fuel load and commercial operation appears to be consistent with and close to planned levels with two exceptions.

The Quality Control Department plan shows 22 supervisors and technicians at 12 months to fuel load, increasing to 27 at commercial operation. The inspector could not reconcile 22 persons with the known QC inspection staff. The QC staff is currently at its authorized 17 persons of which six are the records vault staff, resulting in a current inspection staff of 11. The actual staffing plan is to increase to a total QC staff of 19 prior to fuel load/commercial operation but not 27 as stated in the FSAR. This results in a records vault staff of six and an inspection staff of 13. The licensee attributed this difference to a typographical error.

The Operations Department plans in the FSAR showed 38 control center operators. The actual site staffing plan allows 26. The licensee stated that the FSAR plan numbers include trainees which are also shown under "Training Allowance"; a typographical error.

The licensee stated that the FSAR for Unit 2 would be amended to correct these errors. Since these previously published staffing levels differ significantly from actual staffing plans and levels and since this could have affected the NRC staffs findings when the FSAR review was conducted, the inspector will follow up this item with the NRC staff. (IFI 389/82-34-02).

d. Operating Organization Staffing - Personnel Qualifications

The St. Lucie 2 FSAR (Rev. 11) includes qualifications of many of the plant staff, including:

- Plant Managers
- Maintenance Superintendent

- Operations Superintendent
- Technical Supervisor
- Nuclear Plant Supervisor (licensed)
- Nuclear Watch Engineers (licensed)
- Reactor Control Operators (licensed)
- Reactor Engineer
- I&C Supervisor
- Health Physics Supervisor
- Training Supervisor
- Quality Control Supervisor
- Startup Supervisor
- Outage Coordinator

These qualifications were reviewed during the FSAR review in August 1981.

e. Technical Support Organization

The inspector verified that the technical support organization is in accordance with St. Lucie 2 FSAR Chapter 13, Rev. 11, Figures 13.1.4, 13.1.8 and 13.1.9.

13. TMI Action Plan Items

(Open - Unit 1) TMI Action Plan Item I.C.3 Shift Supervisor Responsibility. This report supplements previous report 335/80-35 in this area. The inspector reviewed the above item status with cognizant licensee management. The status has not changed. The licensee has not implemented the subject training program for shift supervisors. Followup Item 335/80-35-04 remains open.