



UNITED STATES
ATOMIC ENERGY COMMISSION
DIVISION OF COMPLIANCE
REGION II - SUITE 818
230 PEACHTREE STREET, NORTHWEST
ATLANTA, GEORGIA 30303

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CONSTRUCTION INSPECTION REPORT

RO Report No. 50-302/72-2

Florida Power Corporation

Crystal River Unit 3

Crystal River, Florida

Docket No. 50-302

License No. CPPR-51

Category A2

Type of Licensee: B&W, PWR, 855 Mwe

Type of Inspection: Routine, Unannounced

Dates of Inspections: May 9-12, May 24-26, and June 12, 1972

Dates of Previous Inspection: February 1-4, 1972

Principal Inspector: R F Warnick 8/1/72
R. F. Warnick, Reactor Inspector
Reactor Test and Startup Branch Date

Accompanying Inspectors: E J Vallish 8/1/72
E. J. Vallish, Reactor Inspector
Reactor Construction Branch Date

J G Davis 8/3/72
J. G. Davis, Director, Region II Date

R F Warnick For 8/2/72
N. C. Moseley, Chief
Reactor and Startup Branch Date

Other Accompanying Personnel: L. L. Beratan, Senior Structural Engineer
Technical Assistance Branch, RO:HQ

A. A. Varela, Reactor Inspector
Reactor Construction Branch, RO:I

Reviewed By: R F Warnick For 8/2/72
N. C. Moseley, Chief, Reactor Test and Startup
Branch Date

Proprietary Information: None

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SECTION I

Enforcement Action

A. Noncompliance Items

1. Contrary to Criterion XIII of Appendix B to 10 CFR 50, and their own procedure FS-III-11b, FPC failed to correctly identify a pressurizer valve during initial receiving inspection, failed to make required in-storage inspections every 30 days, and misplaced two pressurizer valves for seven months. (See Section II, paragraph 8.)
2. Contrary to Criteria V and IX of Appendix B to 10 CFR 50 and procedure FPC-W21, "Withdrawing and Handling Welding Rod and Electrodes," type 7018 welding rod was observed in construction tool boxes. Type 7018 welding rod should have been stored in a controlled environment prior to usage. (See Section III, paragraph 4.)

Licensee Action on Previously Identified Enforcement Matters

A. Equipment Storage and Inspection Program (Letter to FPC, dated November 24, 1971)

Although FPC responded to this item, corrective actions were not sufficient. A similar deficiency is documented under Enforcement Action above.

B. Valve Wall Thickness (Letter to FPC, dated November 24, 1971)

The entire subject of valves with wall thicknesses below the minimum requirements specified by the applicable codes is being pursued by the Directorate of Regulatory Operations on a generic basis. This item is closed. (See Section II, paragraph 9.)

C. Material and Fabrication Certifications (Letter to FPC, dated January 27, 1972)

FPC is in the process of providing certificates which more completely attest to the specific requirements that have been met. (See Section II, paragraph 24.)

Unresolved Items

Access To Working Level Personnel

The inspectors have experienced difficulty talking to working level personnel without FPC management present. (See Section II, paragraph 26.)

Status of Previously Reported Unresolved Items

A. Tendon Wire Greasing Procedure (RO Report No. 50-302/71-3)

Although six tendons have been placed in the tendon ducts for corrosion protection testing, the vendor procedure for greasing the tendons during fabrication was still not available. (See Section II, paragraph 10.)

B. Procedure and Records For Repair of Radioactive Gas Decay Tanks (Letter to FPC, dated August 26, 1971)

The repair work has not yet been completed.

C. Procedure For Final Inspection of Piping Systems Prior to Hydrostatic Testing and Application of Insulation (Letter to FPC, dated August 26, 1971)

No change.

D. Steam Generator Anchor Bolt Weld Requirements (RO Report No. 50-302/71-4)

No change.

E. Rust on Spent Fuel Pit Piping Spool Piece (RO Report No. 50-302/71-4)

The pipe spool piece SF-61 was reinspected. This item is closed. (See Section II, paragraph 11.)

F. Stainless Steel Pipe and Valve Storage and Cleaning (RO Report No. 50-302/71-5)

Stainless steel valves are stored indoors and the stainless steel pipe is stored on dunnage. FPC will provide cleaning procedures. (See Section II, paragraph 12.)

G. Review Reactor Building Equipment Hatch Heat Treatment Records (RO Report No. 50-302/72-1)

The heat treatment records were reviewed. There are no further questions. (See Section II, paragraph 13.)

H. B&W QA/QC Manual (Letter to FPC, dated January 27, 1972)

All four manuals requested for review in the Regional office have been received. This item is closed. (See Section II, paragraph 14.)

Design Changes

None

Unusual Occurrences

None

Persons Contacted

Florida Power Corporation (FPC)

J. T. Rodgers - Assistant Vice President and Nuclear Project Manager
H. L. Bennett - Director, Generation Construction
J. A. Hancock - Manager, Generation Environmental and Regulatory Affairs
C. E. Jackson - Construction Superintendent
J. C. Hobbs, Jr. - Superintendent, Electrical and Mechanical Systems
M. H. Kleinman - Manager, Generation Quality and Standards
E. E. Froats - Quality Engineer
D. W. Pedrick - Engineer (In Quality Surveillance)
P. G. Davis - Manager, Power Testing
J. Alberdi - Nuclear Plant Superintendent
W. P. Stewart - Assistant Nuclear Plant Superintendent
J. S. Schuyler - Power Test Supervisor
F. E. Williams - Power Test Supervisor
J. S. Fiedler - Quality Engineer, Unit 4
R. B. Johnson - Engineer (In Quality Surveillance)

J. A. Jones Construction Company (JAJ)

J. R. Amundson - Quality Control Manager
W. G. Lock - Warehouseman
W. L. Slean - Welding Supply Room Attendent

B&W Construction Company (B&W)

J. R. McGill - Quality Control Supervisor
R. L. Percey - Inspector

Crystal River Public Library

Mrs. Brownie Searle - Librarian
Mrs. T. F. Bonsall - Assistant Librarian

Individuals Attending AEC Presentation of Ring Girder Problems

H. L. Bennett - FPC, Director, Generation Construction
C. E. Jackson - FPC, Construction Superintendent
E. P. Shows - JAJ, Project Manager
M. H. Kleinman - FPC, Manager, Generation Quality & Standards
E. E. Froats - FPC, Quality Surveillance
J. Fiedler - FPC, Quality Surveillance
J. Amundson - JAJ, QC Supervisor
S. R. Buckingham - GAI, Site QA Coordinator
J. Duren - FPC, Generation Engineering-Structural Engineer
W. Buck - FPC, Generation Engineering-Structural Engineer
G. Pachos - FPC, Structural Superintendent
J. Black - JAJ, Project Engineer
G. B. Browne - PTL, Chief Inspector
D. Short - JAJ, Construction Scheduling

Management Interview

The management interview was conducted in three sessions. Warnick met with Bennett, Jackson, Hobbs, and Pedrick on May 11, 1972, to discuss the results of the inspection conducted May 9-12, 1972. Warnick and Vallish met with Bennett, Jackson, Kleinman, Froats, Fiedler, and Johnson on May 26, 1972, to discuss the results of the inspection completed May 24-26, 1972. Davis, Moseley, and Warnick met with Rodgers, Hancock, and Kleinman on June 12, 1972, at FPC's corporate headquarters to discuss inspector's access to working level personnel and FPC's quality program.

May 11, 1972

A. Equipment Inspection, Handling, and Storage

The inspector discussed the misplaced pressurizer valves. Warnick stated that the failure to properly identify the one valve during the receiving inspection, misplacing the two valves for approximately seven months, and failure to perform FPC's procedurally required in-storage inspections at least every 30 days was in noncompliance with Criterion XIII, Appendix B to 10 CFR 50, and with FPC's procedure FS-III-11b.

Bennett expressed the belief that FPC had strengthened this area of material warehousing, handling, and accountability. (See Section II, paragraph 8.)

B. Reactor Building Tendons

The inspector stated that the vendor's procedure for greasing the tendons during fabrication should have been available by now, since six tendons were onsite. Pedrick said that the procedure had been written but that Prescon was delaying sending the one procedure until it was incorporated in the manual which was in the process of being rewritten.

Jackson confirmed that FPC will send copies of all tendon work procedures to Region II when they are available. (See Section II, paragraph 10.)

C. Spent Fuel Piping Spool Piece SF-61

Froats had previously stated that FPC considered the spent fuel piping spool piece SF-61 to be acceptable and that they plan no further action. The inspector stated he had no further questions. (See Section II, paragraph 11.)

D. Stainless Steel Pipe and Valve Storage and Cleaning

On May 11, Warnick stated he had observed the changes in the storage of stainless steel piping and valves.

On May 26, Vallish stated that he had observed stainless steel piping stored on palm tree log dunnage. He stated that the fibrous bark could contain appreciable chloride which could be transferred to the pipe. Jackson acknowledged this and agreed to look into the situation.

Jackson had previously stated that the stainless steel piping would be cleaned and that procedures for cleaning would be provided. (See Section II, paragraph 12.)

E. Reactor Building Equipment Hatch Heat Treatment Record Review

Warnick stated that he had reviewed the reactor building equipment hatch heat treatment records and had no further questions. (See Section II, paragraph 13.)

F. QA/QC Manuals

Warnick acknowledged receiving the last two of the four quality manuals requested during the inspection of December 7-10, 1971. (See Section II, paragraph 14.)

G. FPC's Quality Program

The inspector stated that he had reviewed the three audits of FPC's quality program made by Quality Surveillance personnel. Warnick indicated the results were indicative of the magnitude of the problem. Bennett stated that FPC had taken action to improve their quality program (additional QA personnel, training meetings, and additional QA guidance to Gilbert Associates, Inc. [GAI]) and that further action will be taken. Warnick stated that he would look for improvements in the quality program. (See Section II, paragraph 15.)

H. Civil Disturbances

The inspector stated that FPC should have written procedures for handling civil disturbances. Warnick requested that Region II be notified by phone of civil disturbances. Bennett stated that FPC would formalize their procedures for handling bomb threats and other disturbances.

On May 26, Warnick again requested that Region II be notified by phone of any civil disturbances that affects or involves Crystal River 3.

On June 1, Kleinman informed Warnick by telecon that either he or Rodgers would notify Region II by phone whenever the Crystal River site experienced a civil disturbance. (See Section II, paragraph 16.)

I. Change to 10 CFR 50.55(e)

The recent change in reporting requirements outlined in 10 CFR 50.55(e) was discussed. Warnick cited the design change to the seals of FPC's reactor coolant pumps and the problems which led to the recall of all CRDM's by B&W for additional testing as two examples of the type of things that should be reported.

Previous to the exit interview, Kleinman stated that he did not consider those two examples significant enough to require reporting. Warnick told Bennett to interpret the law the way FPC understood it and that if the AEC disagreed with FPC's position on any single case, that particular case would be pursued. (See Section II, paragraph 17.)

J. Primary Construction Records

The inspector acknowledged receipt of the list of forms and files which are FPC's primary construction records. (See Section II, paragraph 18.)

K. Emergency Lighting

Warnick questioned the emergency lighting not being in the quality program. Hobbs stated that the emergency lighting, which is fed by the d.c. batteries, would be under the quality program.

The inspector acknowledged receipt of the electrical procedures sent to Region II. Hobbs confirmed that FPC will send electrical procedures FPC-W31 and FPC-W45 when they are approved. (See Section II, paragraph 19.)

L. Test and Operating Procedures

Jackson confirmed that FPC would send Region II test guides, preliminary copies of test procedures, and final copies of approved test and operating procedures.

Warnick stated that cleaning procedures were not listed in the procedure index, that this had been discussed with Davis, and that Davis had agreed to add them to the index. This was confirmed by Jackson. (See Section Paragraph 20.)

May 26, 1972

M. Concrete Inspection Documentation

Warnick stated that he had observed concrete voids and segregation in pour 267CC at the construction joint at about elevation 153 on the plaster located on the west side of the west wall of the control room. Warnick stated that it was his understanding that this concrete placement had not been inspected but that it would be, and in addition, that the inspection results and any required repairs would be documented. Kleinman confirmed this. (See Section II, paragraph 21.)

N. Reactor Coolant Bleed Tanks

The inspector stated that he had observed green cloth masking tape being used on the reactor coolant bleed tanks to identify certain locations. Froats confirmed that all the tape would be removed after the work was completed. (See Section II, paragraph 22.)

O. Work Without Procedures

The inspector stated that in reviewing Nonconformance and Corrective Action Reports, instances were noted where work was started before work procedures were written. Warnick stated that this had been discussed with Froats who had indicated that changes being made in the QC organization would correct this. Kleinman confirmed this. (See Section II, paragraph 23.)

P. Equipment Documentation

Kleinman stated that for the purpose of meeting Criterion VII of Appendix B, FPC was accepting B&W certification as documentary evidence that a piece of equipment conforms to the procurement requirements.

Kleinman stated that FPC will not release equipment for testing until the documentation is acceptable and available to the site. Kleinman also stated that a turnover procedure was being developed for transferring systems and equipment from construction forces to testing personnel.

Warnick stated that this appeared to be consistent with AEC position and that he would review the turnover procedure, when it was available. (See Section II, paragraph 24.)

Q. Ring Girder

Bennett thanked the inspectors for the special presentation by Beratan and Varela concerning ring girder concrete placement problems. (See Section II, paragraph 25.)

R. Welding Rod Control

Vallish stated that he had observed a deficiency in the control of welding rods in the field. Type 7018 welding rod, which should have been stored in a controlled environment prior to usage, was found on the ground and in construction gang boxes. Jackson acknowledged the discrepancy and stated that increased efforts would be expended to correct the situation. (See Section III, paragraph 4.)

June 12, 1972

S. Access To Working Level Personnel

The following understanding was reached concerning AEC's access to working level personnel:

The AEC inspector will have access to operator level personnel without the presence of supervisors or management representatives.

The AEC inspector will not "wander" about the site unescorted nor select operator-level individuals for discussion during such unescorted wanderings.

The AEC inspector will inform the FPC representative that he desires to talk to certain individuals by name or by group designation, i.e., certain type of work or craft or certain work areas.

Discussions normally will be at the work location.

The AEC will participate in a meeting with FPC and contractor supervisors to discuss these direct, unescorted discussions with workmen.

On July 14, 1972, Davis telephoned Rodgers to confirm the understanding reached. Rodgers agreed that this understanding was correct. (See Section II, paragraph 26.)

SECTION II

ADDITIONAL SUBJECTS INSPECTED, NOT IDENTIFIED IN SECTION I, WHERE NO DEFICIENCIES OR UNRESOLVED ITEMS WERE FOUND

1. General

Jackson reported that construction was 52% complete and that during the week of April 28, 1972, the work force totaled 1,481 people. The following major activities were in progress:

- a. Forming and pouring shielding walls inside the reactor building.
- b. Forming and pouring reactor building exterior walls.
- c. Continuing control complex and auxiliary building and cooling water intake structural work.
- d. Continuing all phases of work on the turbine building.
- e. Continuing installation of conduit and cable tray.
- f. Fitting and welding decay heat system piping.

In the request for an extension of their construction permit, FPC changed the core loading date to May 1974 and initial power operation to September 1974.

2. Other Typical Regulatory Activities

RO review of operating organization, Safety Committee, and training.

3. Logs and Records

Incoming Quality Material Log for May 23, 1972.

4. Aircraft Overflights

Alford indicated that aircraft overflights have not occurred since about July 1971. He stated that there were some overflights during the construction of the two fossil units when the smoke stacks were first erected.

Commercial airliners flying to and from Tampa fly within sight of the nuclear plant but do not fly directly overhead.

5. Westinghouse DB-50 Circuit Breakers

In response to the inspector's inquiry, Jackson reported that DB-50 circuit breakers are not being used at Crystal River 3.

6. Pressurizer Heater Power Cable Temperature Rating

The inspector discussed the potential problem of underrated pressurizer heater power cable. Jackson stated that they would review the power cable temperature rating in light of the information presented.

7. Valves With Stems of 400 Series Stainless Steel

Jackson informed the inspector that FPC had checked but found no heat numbers which were indicative of valve stems with 400 series stainless steel. Valve stems made of 400 series stainless steel have been found to be susceptible to longitudinal cracking.

DETAILS OF SUBJECTS DISCUSSED IN SECTION I

8. Equipment Inspection, Handling, and Storage ^{1/}

Four pressurizer valves were purchased from Dresser Industries, Incorporated, on purchase order 813951S. Two of these valves were received on July 12, 1971. Field Specification FS-III-11b, "Receipt, Inspection, Handling, Storage, and Installation of Safety and Pressure Relief Valves," required that the valves be inspected and identified upon delivery and that satisfactory storage be verified by inspection at least every 30 days.

Contrary to the requirements of FS-III-11b, the two valves received on July 12, 1971, were not uncrated; consequently, one valve was not properly identified. In addition, the inspector found no in-storage

^{1/} RO Report No. 50-302/72-1, Section II, paragraph 9.

inspection reports in the quality file when it was examined during the February 1-4 inspection. When Pedrick checked on this, he learned from B&W that the two valves were "lost."

The crates were located on February 7, 1972 in the Mes-Tex warehouse. The valves were uncrated, inspected on February 8, and moved to the B&W warehouse. The inspection revealed that in the initial receiving inspection report, one valve had been misidentified. The receiving inspection report dated July 12, 1971, documented the receipt of the electromatic relief valve, RC-RV2 and one safety relief valve, RC-RV1B. The valves actually received were the electromatic relief valve, RC-RV2, and the isolation gate valve, RC-V2. The inspector observed that an inspection report correcting the identification mistake had been placed in the quality file.

In-storage inspection reports dated March 7, March 31, and May 11, 1972, were in the file. The periods July 12, 1971, to February 8, 1972, and March 31, 1972, to May 11, 1972 exceeded the required 30-day inspection period.

The failure to correctly identify the valves during the initial receiving inspection and the failure to make required in-storage inspections every 30 days were discussed during the inspection with Pedrick. At the exit interview, the inspector discussed these deficiencies and indicated FPC appeared to be in noncompliance with Criterion XIII, Appendix B, 10 CFR 50.

The quality program failure discussed above is significant in that the letter to the licensee dated November 24, 1971, cited similar failures in FPC's inspection and storage program. FPC's response to that letter was to assure the AEC that additional measures had been taken or were being taken to correct the program deficiencies.

9. Valve Wall Thickness

The entire subject of valves with wall thicknesses below the minimum requirements specified by the applicable codes, standards, and procurement specification, is being pursued on a generic basis with all licensees by the Directorate of Regulatory Operations. ^{1/} This inspection item is now considered closed.

^{1/} See letter to FPC from J. G. Davis, dated June 30, 1972.

10. Reactor Building Tendons

During April six tendons were placed in ducts (without buttonheading or tensioning) as part of a tendon corrosion protection test procedure. FPC is attempting to demonstrate an alternative to filling the tendon ducts with grease.

The Prescon procedure for greasing the tendons during fabrication was still not available. This was originally asked for in May of 1971. ^{1/} the inspector commented that this procedure should be available since Prescon had already furnished FPC six greased tendons. Pedrick indicated that Prescon was delaying sending the one procedure until it was incorporated in the manual which was in the process of being rewritten.

The inspector reviewed FPC's preliminary tendon work procedures. The preliminary procedures did not cover buttonheading, tensioning, capping and sealing, or the owner's evaluation procedure, No. 3:06.3, referenced in the preliminary procedures. Jackson indicated that these procedures would be written. At the exit interview, Jackson confirmed that copies of the procedures would be sent to Region II.

11. Spent Fuel Piping Spool Piece SF-61

During the inspection of October 6-8, 1971, weld B of spent fuel piping spool piece SF-61 was observed to be rusty. ^{2/} Pedrick measured the ferrite in six areas using a Severn gage and it ranged from 7-1/2% to 10%. Warnick inspected the elbow during May 9-12, 1972, and observed a light film of rust on the weld. The weld appears the same as it did in October of 1971. Froats indicated FPC is taking no further action. This has been discussed with oth Kelley and Potapovs of RO:II and they have no further questions. This item is closed.

^{1/} See RO Report No. 50-302/71-2, paragraph 9.

^{2/} See RO Report No. 50-302/71-4, Section III, paragraph 4.

12. Stainless Steel Pipe and Valve Storage and Cleaning

During the December inspection, ^{1/} stainless steel piping and valves were observed to be stored out-of-doors without any protective covering. In addition, some pipe ends were observed to be in contact with the ground. At the time of the inspection, FPC was in the process of moving all valves to indoor storage.

An inspection of the storage yard revealed that the stainless steel pipe was stored on dunnage and most of it was covered with plastic. No stainless steel valves were observed in the storage yard. It appeared as if the dunnage and piping had been rearranged so that the piping was less apt to roll off the dunnage and come in contact with the ground.

Jackson had previously ^{2/} stated that the stainless steel piping and components would be cleaned and that procedures for cleaning would be provided.

In the letter to the licensee dated January 27, 1972, Region II documented an understanding that FPC would develop procedures to ensure the cleanliness of both internal and external surfaces of stainless steel valves, piping and components. This will remain as an unresolved item until the cleaning procedures are prepared.

13. Reactor Building Equipment Hatch Treatment Records Review ^{3/}

The heat treatment records for the reactor building equipment hatch were reviewed. Chicago Bridge and Iron Company (CBI) Procedure No. HTP-6B, "Post Forming/Welding Heat Treatment Procedure," was also reviewed. The procedure acceptance criteria stated, "A chart of time versus temperature is plotted automatically by a recording indicating instrument for every heat." There was no such instrument trace available. According to information on the data sheet, the recording instrument went bad during the heat treatment (between the 12:40 p.m. and 1:40 p.m. readings), the temperatures were obtained using a portable potentiometer and the readings were witnessed by another individual.

^{1/} See RO Report No. 50-302/71-5, Section II, paragraph 8.

^{2/} RO Report No. 50-302/71-5, Section II, paragraph 8.

^{3/} RO Report No. 50-302/72-1, Section III, paragraph 7.

The heat treatment temperature was held between the required limits of 1100°F and 1250°F for the required time period of four hours. The maximum allowable heatup and cooldown rates were not exceeded. The inspector had no further questions on this unresolved item.

14. QA/QC Manuals 1/

The four quality manuals requested by the inspector to facilitate the inspection effort have been received by RO:II. This was acknowledged in the exit interview.

15. FPC Quality Program

Deficiencies in FPC's inspection and storage program were identified by the inspector during the inspection of October 5-8, 1971. 2/ Deficiencies in equipment, material and fabrication certifications were identified during the inspection of December 7-10, 1971. 3/ Two missing pressurizer valves were identified during the inspection of February 1-4, 1972, 4/ These deficiencies were indicators that FPC's quality program was not functioning as intended.

During February 1-4, 1972, the inspector expressed concern that FPC's quality program was not working as well as it should. Kleinman responded that FPC was in the process of auditing their QA/QC system. The results of the audit (actually it was three audits) were reviewed during the May 9-12 inspection.

The three audits were conducted by FPC's Quality Surveillance personnel during January and February 1972. The audits covered 297 items or areas and disclosed 149 nonconformances. (Note: Nonconformance as used here is defined by FPC in Section 1.7.7 of their FSAR.)

1/ See RO Report No. 50-302/71-5, Section II, paragraph 12.

2/ See RO Report No. 50-302/71-4, Section II, paragraph 4.

3/ See RO Report No. 50-302/71-5, Section II, paragraph 6.

4/ See RO Report No. 50-302/72-1, Section II, paragraph 9.

Kleinman boiled the quality program problems down to two basic concerns "First, a lack of coverage of the construction activities by the quality control inspection group. Second, a lack of support for the quality control activity by construction supervisors." Kleinman indicated the first problem resulted from the lack of manpower while the second problem resulted from supervisors placing highest priority on getting the work done.

In the management interviews, Rodgers, Bennett, and Kleinman stated that all 149 nonconformances would be resolved; that Quality Surveillance personnel will make monthly audits; and most important of all, significant program changes have been and are being made to correct the problems. Reviews of the QC organization have been made, the QC organization is being centralized and restructured, additional QC manpower has been hired, additional QC procedures are being written, two training meetings have been held, and other training meetings are planned.

16. Civil Disturbances

During the inspection of May 9-12, 1972, civil disturbances were discussed with Jackson and Pedrick. Jackson disclosed that FPC had recently experienced their first bomb threat. The need for formalized procedures and for reporting civil disturbances to Region II was discussed. At the exit interview, Bennett indicated FPC would notify the inspector of civil disturbances and that the handling of civil disturbances would be formalized by procedure. Bennett instructed Jackson to have FPC's security man provide the procedure.

During the inspection of May 24-26, 1972, Jackson reported that FPC had received two additional bomb threats during the previous week. When questioned as to why the AEC had not been notified by phone, Jackson indicated there had been a misunderstanding. Jackson thought he was fulfilling FPC's obligation by notifying the inspector during the inspection.

At the exit interview, Warnick again requested that Region II be notified by phone of all future civil disturbances. Kleinman indicated he would phone FPC's position to Warnick the following week.

Bennett stated that it was FPC's position that no bomb threat had been received against Unit 3, only against the operating plants. Warnick took the position that any threat against the fossil units also concerned the safety of Unit 3.

In a phone conversation on June 1, 1972, Kleinman informed Warnick that either he or Rodgers would notify Region II by phone whenever the Crystal River site experienced any civil disturbances.

As a result of the first discussion concerning this subject, FPC has issued instructions to their telephone operators on how to handle bomb threats. Instructions have also been placed in most offices. A procedure for handling civil disturbances has been drafted but not yet approved.

As a result of the second bomb threat, FPC has made provisions with the local phone company to trace similar calls.

17. Change to 10 CFR 50.55(e)

The recent change in reporting requirements outlined in 10 CFR 50.55(e) was discussed with Kleinman, Pedrick, and Jackson, and at the exit interview with Bennett. Warnick cited the design change to the seals of FPC's reactor coolant pumps, which was reported to the AEC by Arkansas Power and Light Company (AP&L), and the problem which led to the recall of all CRDM's by B&W for additional testing, which was also reported by AP&L, as two examples of the type of things that should be reported.

Kleinman said that he was going to prepare a letter of instruction for FPC management which will outline FPC's position and cite examples of what should be reported. He stated that he does not consider the two examples cited as significant enough to require reporting.

Warnick told Bennett and Jackson in the exit interview to interpret the law the way they understood it and that if the AEC disagreed with FPC's position on any single case, that particular case would be pursued.

18. Primary Construction Records

During the inspection of May 9-12, 1972, the inspector received a list of forms and files which make up FPC's primary construction records. The list had been requested during the inspection of February 1-4, 1972. ^{1/}

19. Electrical Work

Hobbs indicated the electrical work was about ten percent complete. He said that most of the work so far has been pulling receptacle and lighting wire. The 480V and the 4160V engineered safeguards switchgear have been installed, the d.c. batteries have been installed in the battery rooms and are on a trickle charge, and the conduit and cable tray installation is in progress.

Hobbs stated that the lighting and receptacles were not in the quality program. The inspector questioned this and specifically asked about emergency lighting. In the exit interview, Hobbs said that the emergency lighting which is fed by the d.c. batteries will be under the quality program. Hobbs also confirmed that FPC will send electrical procedures FPC-W31 and FPC-W45 when they are approved.

The inspector acknowledged receipt of the electrical procedures that had been sent to Region II.

20. Test and Operating Procedures

Warnick received a copy of the procedure index from Alberdi and Davis. He noted that cleaning procedures were not listed in the index. He indicated the cleaning procedures should be included in the index, since they were a vital part of the preoperational test program. Davis said they would have cleaning procedures and that they would be added to the index.

^{1/} See RO Report No. 50-302/72-1, Section II, paragraph 10.

Warnick asked that Region II be given preliminary copies of test procedures, final copies of approved test and operating procedures, and copies of the test guides. Davis said he would see that they were sent.

These commitments were confirmed in the exit interview by Jackson.

21. Concrete Inspection Documentation

Warnick observed concrete voids and segregation in pour No. 267CC, the west side of the west wall of the control room on the pilaster at about elevation 153 at the construction joint.

The inspector asked to see the QC inspection report for this concrete placement. The purpose was to verify use and adequacy of the inspection, identification, and correction documentation instituted by FPC as a result of RO's inspection of December 7-10, 1971. ^{1/}

Froats reported that since the time the new procedure was started, FPC had been using it for all new concrete placements and had been backfitting it on previous placements. PTL had not performed the inspection for the particular placement identified by the inspector. Froats indicated it would be inspected and the necessary corrective action accomplished before finishing and painting would be done.

This was discussed in the exit interview. The inspector stated that he would follow the resolution of this item.

22. Reactor Coolant Bleed Tanks

The inspector observed green cloth masking tape being used to identify certain locations on the reactor coolant bleed tanks. Although the tape had already been checked and shown to be relatively low in chloride content (8 to 16 ppm), Froats indicated the tape would be removed after the work was completed.

^{1/} See RO Report No. 50-302/71-5, Section II, paragraph 7.

23. Review of Nonconformance and Corrective Action Reports

Each deficiency identified by the licensee is documented by a non-conformance and corrective action report. The resolution of the problem and the corrective action are also documented in the report.

In reviewing these reports, the inspector noted instances where work was started without having written work procedures on hand. The FSAR states in Section 1.7.6.5.2, "Contractors are required to conduct work affecting quality in accordance with detailed written procedures."

This was discussed with Froats who indicated that when they become aware of such a situation, the work is stopped until procedures are provided. Froats also indicated that the changes being made in the QC organization should correct this situation. Amundson or someone in his QC organization will be conducting reviews in the future to prevent this from happening. This was confirmed by Kleinman in the exit interview.

24. Equipment Documentation and Release For Construction

The inspector observed a release tag on reactor building spray pump 1B. The documentation for the particular pump was the subject of an item of noncompliance ^{1/} which resulted in FPC "rejecting all of the document packages in their present condition." ^{2/} The noncompliance has not been satisfactorily corrected.

After some phone calls (described in paragraph 26), Warnick talked to Percey, the B&W inspector who signed the release tag, concerning his understanding of the release tag. Percey indicated he had verified that the data package was onsite and that the certification sheet was signed by B&W. He had not verified the adequacy on the data in the package.

^{1/} See RO Report No. 50-302/71-5, Section II, paragraph 6.

^{2/} FPC letter of February 21, 1972, from J. T. Rodgers to J. G. Davis pertaining to the AEC inspection of December 7-10, 1971.

Warnick discussed with Froats and Kleinman the apparent deficiency in the quality program which permits a release tag to be placed on equipment that has documentation inadequacies.

Kleinman said that FPC believed the problem which resulted in them rejecting B&W documentation was one of an inadequate system for the collection of data rather than the lack of credibility of the documentation. For the purpose of meeting Criterion VII of Appendix B, 10 CFR 50, Kleinman said that FPC was accepting B&W's certification as documentary evidence that a piece of equipment conformed to the procurement requirements. Equipment installation and hookup was proceeding on that basis.

In a phone conversation of July 5, 1972, Kleinman indicated FPC was going to talk to B&W about providing certificates which more completely attest to the specific requirements that have been met.

Kleinman stated that prior to turning over systems or equipment from construction forces to the testing group, the documentation will be acceptable and available. In addition, Kleinman said that a turnover procedure was being developed by Davis to control the transfer of systems and equipment from construction forces to the testing group.

Warnick indicated that FPC's position appeared to be consistent with AEC policy. The turnover procedure will be reviewed when it is available.

25. Ring Girder Concrete Placement and Problems

The special problems that accompany placement of concrete in the reactor building ring girder were discussed by Beratan of RO:HQ and Varela of KO:I. They described concrete placement in this location and the problems experienced at one nuclear site. Slides and photographs were displayed which very vividly illustrated the seriousness and extent of the problems. Emphasis was placed on quality control. The presentation concluded with a question and answer session after which most of the 15 attendees indicated the presentation was beneficial.

In the exit interview, Bennett again expressed FPC's appreciation for the presentation.

26. Access To Working Level Personnel

During the inspection of December 7-10, 1971, Warnick attempted to talk to a B&W inspector without FPC management personnel in attendance. Permission was refused on the basis of company policy. The matter was pursued during the inspection with the Director of Region II and others up to the level of the Director of Regulatory Operations. During the following week, Davis talked with Rodgers, and RO thought the matter was satisfactorily resolved.

During the inspections of February 1-4, 1972, and May 9-12, 1972, no attempt was made to talk to working level personnel. However, during the inspection of May 9-12, Pedrick inquired whether or not the matter had been resolved. Warnick told him he thought it had, and it was his understanding that AEC inspectors could talk to working level people without FPC management in attendance. After a series of phone calls, Pedrick indicated the inspector had the wrong understanding. The procedure as explained by Pedrick was not consistent with AEC policy. The inspector called Moseley and informed him of the situation. Since the inspector had not identified a specific individual to talk to, Moseley instructed Warnick to drop the matter. Moseley also told Warnick to identify a specific individual on a subsequent inspection, and the need to talk to that individual, and to pursue the matter further at that time.

During the inspection of May 24-26, 1972, and as stated in paragraph 24, the inspector observed a release tag on reactor building spray pump 1B. The documentation for that particular pump was the subject of an item of noncompliance (still uncorrected) which resulted in FPC rejecting all of the B&W document packages. The release tag was signed by Percey, a B&W inspector, on April 28, 1972.

When Warnick indicated that he wanted to talk to Percey without FPC management personnel present, Froats said that he would have to check with higher management before he could set it up. Warnick explained that if permission were denied, the matter would be pursued at higher levels as in December.

After phone calls up to the FPC Assistant Vice President-RO Regional Director level, Warnick was given permission to talk to the B&W inspector.

Froats indicated that Rodgers had given permission for this one interview only, and that FPC's policy regarding interviews with working level personnel was still the same.

Warnick discussed this matter with Davis and Moseley and was instructed to conduct the one interview but not to attempt others. Davis said the matter, would be pursued with Rodgers in a subsequent visit.

On June 12, 1972, Davis, Moseley, and Warnick met with Rodgers, Hancock, and Kleinman to discuss the AEC's need for access to working level personnel. The following understanding was reached:

The AEC inspector will have access to operator level personnel without the presence of supervisors or management representatives.

The AEC inspector will not "wander" about the site unescorted nor select operator-level individuals for discussion during such unescorted wanderings.

The AEC inspector will inform the FPC representative that he desires to talk to certain individuals by name or by group designation, i.e., certain type of work or craft or certain work areas.

Discussion normally will be at the work location.

The AEC will participate in a meeting with FPC and contractor supervisors to discuss these direct, unescorted discussions with workmen.

On July 14, 1972, Davis telephoned Rodgers to confirm the understanding reached. Rodgers agreed that this understanding was correct.

SECTION III

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ADDITIONAL SUBJECTS INSPECTED, NOT IDENTIFIED IN SECTION I, WHERE NO DEFICIENCIES OR UNRESOLVED ITEMS WERE FOUND

1. General

The reactor pressure vessel and steam generators are stored in their permanent positions in the containment building. The construction opening in the containment building is closed and the shielding walls are being placed inside and outside.

2. Welding

Inspection indicated that the licensee's line and quality control organizations for welding do conform to the application. The field review of quality control procedures, work performance procedures and recordkeeping requirements for certain specific examples indicated their field establishment for the welding processes. No further questions exist in this area.

3. Piping

The licensee's line and quality control organization and functional relationships for the procurement, receiving, installation and testing of piping conformed to the application. A review of the quality control procedures, work performance procedures, and recordkeeping requirements confirmed their establishment in the field. There are no further questions in this regard.

DETAILS OF SUBJECTS DISCUSSED IN SECTION I

4. Field Control of Welding Rods

During inspection in the field, it was identified that the intent of Criterion V, "Instruction Procedures, and Drawings," and Criterion IX, "Control of Special Processes," of 10 CFR 50, Appendix B, were not being met. The measures established, FPC-W21, titled "Withdrawing and Handling Welding Rod and Electrodes," for control of welding materials was not being implemented in that quantities of 7018 welding rod, a type requiring a special environment control prior to use, were found lying around to the extent that weld quality could be compromised.

Ltr to Florida Power Corporation
Jtd 7/24/72

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