UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA ST., N.W., SUITE 3100
ATLANTA, GEORGIA 30303

Report Nos. 50-250/81-26 and 50-251/81-26

Licensee: Florida Power and Light Company
9250 West Flagler Street
Miami, FL 33101

Facility Name: Turkey Point

Docket Nos. 50-250 and 50-251

License Nos. DPR-31 and DPR-41

Inspection at Turkey Point site near Homestead, FL

Inspector: W. P. Kleinsorge — 11/30/81 Date Signed

Approved by: A. R. Herdt, Section Chief — 12/1/81 Date Signed
Engineering Inspection Branch
Engineering and Technical Inspection Division

SUMMARY

Inspection on November 3-6, 1981

Areas Inspected

This routine, unannounced inspection involved 30 inspector-hours on site in the areas of storage and protection of installed equipment (Units 3 and 4) and steam generator repair (Units 3 and 4).

Results

Of the two areas inspected, three violations were found in two areas (Violation - "Inadequate Measures to Control Welding and Welder Qualification" - paragraph numbers 6.b(3), 6c, and 6.d(2); Violation - "Failure to Establish Controls for Storage and Preservation of Installed Equipment" - paragraph 5.b; Violation - "Failure to Include All Required Nonessential Variables in WPS", paragraph 6.c). No deviations were found.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

*J. K. Hays, Plant Manager - Nuc PTP
*G. R. Gram, Site Project Manager
*T. Essinger, Assistant Manager QA, PTP
*M. J. Crisler, Project QA Engineer
*J. F. O'Brien, Construction Project QC Supervisor
*D. W. Jones, QC Supervisor, PTP
*J. D. Ferrare, QA PTP

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

Other Organizations

*P. J. Bender, Project Field Engineer (Acting), Bechtel Power Corp. (BPC)
*R. Eldridge, Welding Engineer, BPC
D. M. Swann, Welding & QA Supervisor, Chicago Bridge and Iron Company (CB&I)

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on November 6, 1981 with those persons indicated in paragraph 1 above. The inspector described the areas inspected and discussed in detail the inspection findings listed below. No dissenting comments were received from the licensee.

Violation - 250,251/81-26-01: "Inadequate Measures to Control Welding and Welder Qualification" - paragraph numbers 6.b(3) and 6.d(2).

Violation - 250,251/81-26-02: "Failure to Establish Controls for Storage and Preservation of Installed Equipment" - paragraph 5.b.

Violation - 250,251/81-26-03: "Failure to Include All Required Nonessential Variables in WPS" - paragraph 6.c

Unresolved Item 250,251/81-26-04: "Non-Retrievable CMTR" - paragraph 6.d(1).

3. Licensee Action on Previous Inspection Findings

Not inspected.

4. Unresolved Items

Unresolved items are matters about which more information is required to determine whether they are acceptable or may involve violations or deviations. New unresolved items identified during this inspection are discussed in paragraph 6.d(1).

5. Independent Inspection Effort (Units 1 and 2)

a. Construction Progress

The inspector conducted a general inspection of the Unit 3 and 4 auxiliary and reactor buildings and welding material issue stations to observe construction progress and construction activities such as welding, material handling and control, housekeeping and storage.

b. Storage and Protection of Installed Equipment

With regard to the inspection of paragraph 5.a, the inspector on November 3-6, 1981, accompanied by a representative of the licensee, noted the following in the Units 3 and 4 reactor buildings:

(1) Approximately five examples of rigging from or scaffolding supported by installed safety related cable trays or piping.

(2) Numerous examples of extraneous markings and various types of tape applied to the surfaces of safety related components, tanks and piping.

The inspector discussed the above with the licensee who stated that they had no documented program to control the following:

- Rigging from or scaffolding supported by installed safety related cable trays or piping. The only existing control on the above is the "good judgement of the craft".

- Surface applied substances for safety related stainless steel applications to prevent deterioration.

The inspector informed the licensee that the above indicated inadequate controls for storage and preservation of installed equipment. Failure to establish controls for storage and preservation of equipment in accordance with instructions to prevent damage, is in violation of 10 CFR 50 Appendix B, Criterion XIII. The above violation will be identified as 250,251/81-26-02: "Failure to Establish Controls for Storage and Preservation of Installed Equipment".

Within the areas examined no violations or deviations were identified except as described in paragraph 5.b.

6. Steam Generator Repair (Units 3 and 4)

The inspector observed welding work activities for the steam generator repair project as described below to determine whether applicable code and procedure requirements were being met. The governing overall code for the steam generator replacement is the ASME B&PV Code Section XI, 1977 Edition with Addenda through the Summer 1978.

At the time of this inspection the "A" generator replacement lower assembly, the last of three, had been moved into the unit three containment. The inspector observed a portion of the handling effort.

The inspector observed in-process welding activities as described below to determine whether applicable code and procedure requirements were being met.

a. Welding

The below listed welds were examined in-process to determine: work conducted in accordance with traveler; welder identification and location; welding procedure; WPS assignment; welding technique and sequence; materials identity; weld geometry; fit-up; temporary attachments; gas purging; preheat; electrical characteristics; shielding gas; welding equipment condition; interpass temperature; interpass cleaning; process control systems; identity of welders; qualification of inspection personnel; and weld history records.

- Main Steam Joint FW-C-3 on FSK-M-641
- Repair to "A" Feedwater Nozzle

b. Welder Qualifications

The inspector reviewed the Chicago Bridge and Iron Company (CB&I) and Bechtel Power Corporation (BPC) programs for qualification of welders and welding operators for compliance with QA procedures and ASME Code requirements.

(1) The following welder qualification status records and "Records of Performance Qualification Test" were reviewed relative to the weld joints listed in paragraph no. 6.a.

Welder Symbol	Organization
P-451	BPC
P-1810	BPC
EKM	CB&I

(2) Welder qualification testing was observed in progress for the following welders:

Welder Symbol	Organization
P-562	BPC
P-576	BPC
B-346	BPC
BFO	CB&I

(3) Radiography of welder qualification test assemblies was observed in progress for the following welders:

Welder Symbol	Organization
DCS	CB&I
GGM	CB&I
CJP	CB&I

With regard to the inspection above, the inspector noted on November 4, 1981, that the lead letter "B" was not attached to the back of the film holders for the above test assemblies during radiography. The preceding is contrary to CB&I procedure RT1, Revision 4, "Radiographic Examination Procedure", paragraph 5.5.1, which requires the lead letter "B" to be placed on the back of the film holders during radiography.

The above condition indicates inadequate measures for the control of special processes and is an example of violation 250,251/81-26-01. This matter is discussed further in paragraph 6.d(2).

(4) Radiographs of welder qualification test assemblies for the below listed welder were reviewed.

Welder Symbol	Organization
DCS	CB&I

c. Welding Procedure Specifications

The following BPC welding procedure specifications (WPS) were selected for review:

WPS No.	Missing Nonessential Variables
P1-AT-Lh (CVN)	QW-410.5, .10, .15, .25, & .26
P3(G3)P1-AT-Lh (CVN)	QW-410.5, .10, .15, .25, & .26
P43-A	QW-410.25 & 26
P1-A-Lh	QW-410.5, 25, & 26

The above WPS's and their supporting Procedure Qualification Records (PQR's) were reviewed to ascertain whether essential, supplementary and/or nonessential variables incluidng thermal treatment were consistent with code requirements; whether the WPS's were properly qualified and their supporting PQR's were accurate and retrievable; whether all required mechanical tests had been performed and the results met the minimum requirements; whether the PQR's had been reviewed and certified by appropriate personnel and, whether any revisions and/or changes to nonessential variables were noted.

With regard to the above, the inspector noted on November 4, 1981, that for the WPS's above and their supporting PQR's, the nonessential variables QW-410.5, method of initial and interpass cleaning; QW-410.10, single electrode or multiple electrode; QW-410.15, electrode spacing; QW-410.25, manual semi-automatic or machine automatic welding; and QW-410.26, peening; of the ASME Code Section IX were not addressed as required by paragraph QW-201.1 of the ASME Code Section IX, as indicated above.

Failure to include all pertinent information in the WPS is in violation of paragraph (a)(1) of 10 CFR 50.55a. This violation will be identified as 250,251/81-26-03: "Failure to Include All Required Nonessential Variables in WPS".

d. Welding Filler Material Control

The inspector reviewed the BPC and CB&I programs for control of welding materials to determine whether materials are being purchased, accepted, stored and handled in accordance with QA procedures and applicable code requirements. The following specific areas were examined:

- Purchasing, receiving, storing, distributing and handling procedures, material identification; and inspection of welding material issuing stations.

- Welding material purchasing and receiving records for the following matrials were reviewed for conformance with applicable procedures and code requirements:

Type	Size	Control/Heat No.
E7018	3/32"	401N3761*
E7018	1/8"	432N7721*
E70S-2	3/32"	412E2751*
E70S-2	1/8"	25244
E8018G	1/8"	DDD-073

(1) With regard to the inspection above, on November 6, 1981, the inspector noted the Certified Material Test Reports (CMTR) and the Receiving Inspection Reports (RIR) for the materials marked with a star (*) where not retrievable. The licensee indicated that they

would look further into the matter. The inspector stated that the matter would be identified as unresolved item 250,251/81-26-04: "Non-Retrievable CMTR's".

(2) With regard to the inspection above, the inspector noted on November 4-5, 1981, the following conditions:

(a) Type E8018 welding electrodes were stored in an unguarded, unlocked electrode oven. The above is contrary to CB&I Nuclear Quality Manual for ASME Section III Products, Revision, 4 Construction, Section 8 Welding, paragraph 8.2.2.1, which requires all welding materials to be stored in locked storage areas or locked electrode ovens.

(b) Cold flux covered welding electrodes were left for approximately 8 hours in an unenergized protable rod warmer. The above is contrary to BPC Welding Standard, WFMC-1 dated April 15, 1981, paragraph 4.5.6, which requires portable rod warmers to be continuously heated or energized during use except during transit time.

(c) Type E7018 low hydrogen, low alloy electrodes were used from an open bucket adjacent to an energized rod warmer. The above is contrary to BPC Welding Standard WFMC-1, paragraph 4.5.6 which requires low hydrogen low alloy electrodes to be used directly from portable rod warmers.

The above combined with the examples as discussed in paragraph 6.b(3) indicates that the licensee does not have adequate measures for the control of special processes. Failure to establish adequate measures to control special processes including welding is in violation of 10 CFR 50, Appendix B, Criterion IX. This violation will be identified as 250,251/81-26-01: "Inadequate Measures to Control Welding and Welder Qualification".

Within the areas examined, no violations or deviations were identified except as described in paragraph numbers 6.b.(3), 6.c, and 6.d(2).