

DETAILS I

Prepared by:

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Facilities Section
Facilities Construction Branch

3/24/75
Date

Dates of Inspection: March 13-14, 1975

Reviewed by:

J. O. Bryant
J. O. Bryant, Senior Inspector
Facilities Section
Facilities Construction Branch

3/24/75
Date

1. Persons ContactedFlorida Power and Light Company (FP&L)

Dr. R. G. Cockrell - Manager, QA
H. D. Mantz - Assistant Manager, QA Construction
A. M. Anderson - Senior QA Engineer, Electrical
R. P. Krolicki - QA Engineer, NDE
D. McAfee - Senior QA Engineer, Mechanical
J. Forbes - QA Engineer, Civil

2. Scope of Inspection

This inspection was performed to determine if the licensee's QA program in the areas of site preparation, foundations and containment is commensurate with the work to be performed under the Limited Work Authorization (LWA-2).

3. Quality Assurance Program

Implementation of the licensee's QA Program associated with site preparation, foundations and containment (concrete) was examined in detail. Areas examined included the QA/QC organization, audits and functional relationships of the licensee and contractor personnel. Within the areas examined, the inspector has no further questions.

a. Organizational/Functional Alignment

The present QA organizational charts do not meet the commitments made in the SAR; however, the licensee is in the process of revising Chapter 17 of the SAR to depict the present organization. The reason for the above change is that the licensee will perform the site QA and QC functions instead of Ebasco. The site QA personnel will report to the Assistant QA Manager. The site QC Supervisors will report administratively to the Superintendent of Construction Quality Control and functionally to the Construction

Superintendent. The licensee stated that additional QA and QC personnel will be added to handle the increased workload. The inspector examined the new organizational charts, position descriptions, duties and responsibilities of the QA/QC personnel. The licensee stated that revisions to the SAR and QA manual would be submitted prior to start of work.

b. Audits/Surveillance

The inspector examined QA audit procedures which specify that audits and surveillance of construction activities will be performed weekly, monthly, semi-annually and annually depending upon the activity being audited. Surveillances of certain activities may be performed on a daily basis. Each QA engineer is required to prepare a schedule for performing audits/surveillances for his discipline. Each audit/surveillance must be documented and submitted to appropriate levels of management. Construction audit schedules for St. Lucie 2 were not available for examination; however, the licensee stated that schedules would be available for IE:II review prior to start of work.

4. Documents Examined

- a. Organizational Chart of Nuclear Affairs dated February 28, 1975, which includes the QA organization.
- b. Proposed organizational chart for construction quality control.
- c. Position descriptions for quality control personnel.
- d. Organizational description of construction quality control. This document specifies responsibilities and interfaces with other FP&L organizations and outside organizations.
- e. Quality Instruction Form QI 6. QAD.1-1 and QI 5.
- f. List of QC procedures to be developed for St. Lucie 2.
- g. QA audit procedures Nos. 18.1, 18.2, 18.3 and 18.4.

DETAILS II

Prepared by:

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3/21/75
Date

Dates of Inspection: March 13-14, 1975

Reviewed by:

L. L. Beratan
L. L. Beratan, Senior Inspector
Engineering Section
Facilities Construction Branch

3-21-75
Date

1. Individuals ContactedFlorida Power and Light Company (FP&L)

Dr. R. G. Cockrell - Manager of QA
H. D. Mantz - Assistant QA Manager
A. M. Anderson - QA Engineer
J. R. Forbes - QA Engineer, Civil
C. F. Herron - QA Engineer, Civil

2. Scope

This inspection was conducted to determine whether quality control procedures, work performance procedures and recordkeeping requirements for activities to be conducted under Limited Work Authorization-2 (LWA-2) have been or are being developed in the areas of site preparation, foundation materials, concreting, fabrication and installation.

3. QC System Reviewa. General

Discussions with FP&L onsite civil engineers, examination of the developing QA/QC program and review of available QC specifications and procedures pertinent to Unit No. 2 confirms that FP&L is in the process of implementing an onsite QC program that is consistent with its LWA-2 needs and the SAR requirements. FP&L's onsite control procedures are not approved or final as yet; however, considering the anticipated start of construction date (June 1975), the licensee's civil quality control procedure development appears to be at a reasonable stage of development and implementation.

b. Organization Change and Anticipated Construction Developments

FP&L is in the process of developing and managing the QA/QC and record control functions for Unit 2 utilizing licensee personnel exclusively. Conversation with FP&L management revealed that FP&L had hired a Field QC Supervisor for Lucie No. 2, and he will eventually be assisted by seven people, three clerical and four area QC supervisory type personnel. The above subject personnel are to report onsite shortly to become familiar with the site and the contractor to effect a smooth transition. The licensee stated in the event FP&L was unable to setup for the above operation prior to work commencing, Ebasco is prepared to handle the QA/QC, record-control tasks as they did for Unit No. 1.

FP&L is currently receiving work package bids from various material suppliers, contractors and service organizations for work connected with LWA-2. A new concrete batch plant has been recommended and is being considered by FP&L to increase concrete production and permit larger monolithic pours.

c. QC Specification and Procedure Review

The following specifications and quality control procedures for groundwater and earthwork operations, the manufacturing, placing, testing and control of structural grade concrete were examined for conformance to SAR commitments and applicable codes and standards.

Specification FLO 2998.471	"Excavation and Backfill"
Procedure CSP-1	"Excavation and Backfill"
Procedure ASP-1	"Environmental Protection Control Proced
Specification FLO 2998.473	"Concrete, Seismic Class I"
Specification FLO 2998.474	"Concrete Reinforcing Steel, Furnishing, Fabrication and Delivery"

No items of noncompliance were identified; however, the inspector expressed concern in that the above procedures were in general all-inclusive but they did not clearly delineate or specify specific inspector involvement, responsibility and duties. The licensee commented that these civil inspection procedures are being prepared and will be available for review prior to the LWA-2 work commencing. The following inspection procedures are to be provided:

- (1) Concrete pre-pour inspection
- (2) Concrete inspection - during pour
- (3) Post placement concrete inspection
- (4) Rebar installation inspection
- (5) Compaction of fill inspection

SUMMARY OF FINDINGS

I. Deviations

None

II. Licensee Action on Previously Identified Deviations

None

III. New Unresolved Items

None

IV. Status of Previously Reported Unresolved Items

None

V. Design Changes

None

VI. Unusual Occurrences

None

VII. Other Significant Findings

The licensee is planning to perform site QA and QC activities instead of subcontracting to Ebasco. Excavation work under an LWA is expected to start by mid-June 1975.

VIII. Management Interview

A management interview was held with Dr. R. G. Cockrell, QA Manager, and members of his staff at the conclusion of the inspection. The results and findings of the inspection were discussed in detail.