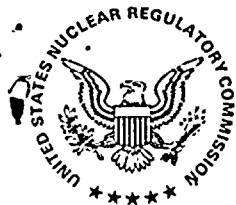


UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30323



Report Nos.: 50-250/89-19 and 50-251/89-19

Licensee: Florida Power and Light Company
9250 West Flagler Street
Miami, FL 33102

Docket Nos.: 50-250 and 50-251

License Nos.: DPR-31 and DPR-41

Facility Name: Turkey Point 3 and 4

Inspection Conducted: April 16-20, 1989

Inspector: J. R. Harris May 8, 1989
Date Signed

Approved by: T. Conlon 5-9-89
Date Signed
T. Conlon, Section Chief
Plant Systems Section
Engineering Branch
Division of Reactor Safety

SUMMARY

Scope: This routine, unannounced inspection was in the areas of soil and foundation placement and concrete placement for the addition of the Emergency Diesel Generator and follow-up on previously identified items in the Fire Protection area. This inspection covered results of tests on the soils and concrete and observation of the concrete placement.

Results: In the areas inspected, violations or deviations were not identified. During the inspection the licensee was very responsive to the NRC requests for information on the installation of the Emergency Diesel Generators. During the inspection, rain poured on the concrete and washed some of the cement paste away from the concrete. The licensee collected some of this material and placed them in cylinders. The test on these cylinders will be performed in seven days. The inspector requested the licensee provide the inspector with the results of these tests. Results of these tests were reviewed by NRC inspector, J. Lenahan, during an inspection performed April 24-28, 1989. Review of the test results indicated that the test requirements were met.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *J. Cross, Plant Manager
- *S. Franzone, Lead Engineer
- *D. Grandage, Engineer, Plant Systems Project
- *D. Herrin, Regulatory Compliance
- *M. Laca, Quality Assurance
- *J. Odom, Site Vice President
- *J. O'Brien, Project Quality Assurance Supervisor
- *G. Salamon, Superintendent Supervisor
- *G. Trazyk, Fire Protection Supervisor
- *K. Van Dyne, Regulatory Compliance
- *T. Young, Site Project Manager

Other licensee employees contacted during this inspection included engineers, mechanics, security force members, technicians, and administrative personnel.

Other Organizations

- R. Key, Construction QC Supervisor, Bechtel Corporation
- J. Nuzarchyh, Construction Civil QC Supervisor, Store and Webster
- S. Pastiana, Ebasco Site Representative for Turkey Point

NRC Resident Inspectors

- *R. Butcher, Senior Resident Inspector

*Attended exit interview

2. Geotechnical/Foundation Activities - Record Review (45055)

The inspector examined records for compaction controls for backfill placed in the Emergency Diesel Generator foundations. Records examined were for backfill placed during January, February and March 1989. Records examined included sandcone density tests, moisture tests, laboratory proctor tests, and calibration controls for laboratory test equipment.

Examination of records showed that the backfill was being compacted in accordance with procedure requirements. Review of calibration data on the test equipment showed that calibration requirements were being met.

3. Structural Concrete Work Observation (46053)

The inspector observed placement of pour number F-3 ID EDG8. in the Emergency Diesel Generator Base Mat. The mix design number was a 5000 psi mix. Acceptance criteria examined by the inspector were as follows:

Specification CN-2.9., Concrete Materials and Mixes, Concrete Mixing and Transportation

Specification CN-2.11., Concrete Testing Placing, Curing and Finishing

Concrete Preplacement TS10.3-1.1

Concrete Placement TS 10.3-2.1

Concrete Post Placement TS 10.3-3.1

Concrete Field Testing TS 10.4-1.1

PCM 259, Emergency Diesel Generator Building Construction

TS 10.3-1.1, Concrete Preplacement

TS 10.3-2.1, Concrete Placement

TS 10.3-3.1, Concrete Post Placement

TS 10.4-1.1, Concrete Field Testing

TS 10.4-2.1, Laboratory Testing of Concrete

DWG 5610-C-1589, Diesel Generator Building Mat

DWG 5610-G-1589, S.H. 1/87-259, Unit 4 Diesel Generator Building Mat

DWG 5010-C-1509, S.H. 2/87-212, Diesel Generator Building Site Development

DWG 5610-C-1509, S.H. 3/87-212, Diesel Generator Building Site Development

DWG 5610-C-1589, S.H. 3/87-259, Diesel Generator Building Mat Reinforcement

DWG 5610-C-1589, S.H. 2/87-259, Diesel Generator Building Mat Reinforcement

This review indicated that forms were tight clean and level. Rebar was properly installed and clean. Placement activities pertaining to delivery time, free fall, flow distance, layer thickness and consolidation conformed to specifications. Concrete placement activities were

continuously monitored by construction and QA inspectors. Examination of batch tickets indicated that the specified design mix was being delivered. Samples of the concrete were obtained from the pumpline discharge and tested in accordance with specification requirements. Test results indicated that the concrete being placed met the specification requirements for slump and temperature. However, for the first 90 cubic yards of concrete placed, the measured air content did not conform to the approved mix design. Mix 5006 requires 2 to 5 percent entrained air at the point of placement. Test results showed 1.5 percent air content on the initial test and 1.1 percent air content on the 50 yard test. The licensee issued an NCR to address this item. At the 100 yard test, the air content was 2.0 percent which is within the limits of design. Also, during the pour, rain water intruded into the fresh concrete, washing away part of the cement paste. Cylinders were taken from the concrete with cement paste washed away prior to addition of fresh concrete. The inspector asked the licensee to provide the results of this test which will be performed in seven days. Results of these tests were provided to NRC inspector, J. Lenahan, during an inspection performed April 24-28, 1989. Results of these tests indicated that test requirements were met.

4. Structural Concrete Record Review (46055)

The inspector reviewed records for placement of the forms and rebar performed in accordance with procedure 10.3-1.1, Concrete Preplacement.

Review of these records indicated that the rebar and forms were properly installed.

5. Action of Previous Inspection Findings (92701, 92702)

(Closed) IFI 250, 251/88-37-01, Revise Fire Door Surveillance Procedure O-SMM-016.6 to Document Visual Inspection of Door Surface. Reviewed Revision dated April 7, 1989, and verified that proper corrective actions were taken on this item.

(Closed) Violation 250, 251/88-37-02, Assignment of Ineligible Members to Fire Brigade Duty. During this inspection, the inspector reviewed the corrective actions taken on this violation.

This included review of an assignment sheet of eligible brigade members prepared and forwarded to the operations department by the fire protection group on a monthly basis. The operations department selects the on duty fire brigade members from this assignment sheet. Also, in order to prevent ineligible personnel from being placed on the active fire brigade roster, procedure O-ADM-016.2, Fire Brigade Program, was revised to require monthly verification of eligibility for fire brigade members. The inspector also reviewed the current training records for all brigade members.

(Closed) Unresolved Item 250, 251/88-37-03, Installation of Rubber Hose on Unit 3 Reactor Coolant Pump "A" Lube Oil Collection System. Opened to follow up on the licensee's investigation and corrective actions in regard to the installation of the rubber hose in the Unit 3 RCP Lube Oil Collection System. The inspector reviewed the licensee response to this item which indicated the flex hose was replaced by hard piping. During this inspection, the inspector went into the Unit 3 containment and verified the flex hose was replaced by hard piping.

6. Exit Interview

The inspection scope and results were summarized on April 20, 1989, with those persons indicated in paragraph 1. The inspector described the areas inspected and discussed in detail the inspection results. The licensee did not identify as proprietary any of the material provided to or reviewed by the inspector during the inspection.