



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

Report Nos. 50-250/81-21 and 50-251/81-21

Licensee: Florida Power and Light Company
 P. O. Box 529100
 Miami, FL 33152

Facility Name: Turkey Point 3 and 4

Docket Nos. 50-250 and 50-251

License Nos. DPR-31 and DPR-41

Inspection at Turkey Point Site, near Homestead, FL

Inspector: *L. A. Franklin*

11/17/81
Date Signed

Approved by: *C. M. Hooley*
 C. M. Hooley, Acting Section Chief
 Technical Inspection Branch
 Engineering and Technical Inspection Division

4/17/81
Date Signed

SUMMARY

Inspection on October 13-16, 1981

Areas Inspected

This routine, unannounced inspection involved 31 inspector-hours on site in the areas of radiation protection procedures, advanced job planning and preparation, training, exposure control, respiratory protection program, posting and control, surveys, and radiation work permits.

Results

Of the eight areas inspected, no violations or deviations were identified in seven areas; one violation was found in one area (failure to follow procedures).

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REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *J. K. Hayes, Plant Manager, Nuclear
- *P. W. Hughes, Health Physics Supervisor
- *D. W. Haase, Operations Superintendent, Nuclear (Acting)
- *T. S. Peck, Health Physics Administrative Supervisor
- *D. W. Jones, Quality Control Supervisor
- D. Hurlbut, Health Physics Shift Supervisor
- *R. M. Brown, Operations Health Physics Supervisor
- *R. M. Givens, Health Physics Shift Supervisor
- *D. E. Cooper, Health Physics Shift Supervisor
- M. Ammerman, Health Physics Training Supervisor
- J. Ferguson, Health Physical Administrative Supervisor
- *J. P. Mendieta, Maintenance Superintendent
- *S. M. Feith, Quality Assurance Operations Supervisor
- J. Ferrare, Quality Assurance
- *R. Tucker, Quality Assurance
- *M. J. Crisler, Quality Assurance (Backfit)

Other licensee employees contacted included six construction craftsmen, seven technicians, and two office personnel.

NRC Resident Inspector

- *R. Vogt - Lowell

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on October 16, 1981 with those persons indicated in paragraph 1 above. The Plant Manager acknowledged the violation.

3. Licensee Action on Previous Inspection Findings

(Closed) Violation (250/251/80-37-01/80-35-01) Radwaste Shipment Containing Leaking Barrels. This citation was withdrawn by letter dated September 11, 1981 from Mr. James P. O'Reilly, Director, Region II.

4. Unresolved Items

Unresolved items were not identified during this inspection.



5. Plant Tour

During the course of the inspection, the inspector toured the Unit 3 Containment, the Auxiliary Building, and outside areas within the Radiation Controlled Area (RCA). This unit is in a major repair and refueling shut-down. The inspector noted that a considerable effort has been made to maintain plant cleanliness. At no point, during various tours of these areas, were piles of clothing, trash, etc. noted.

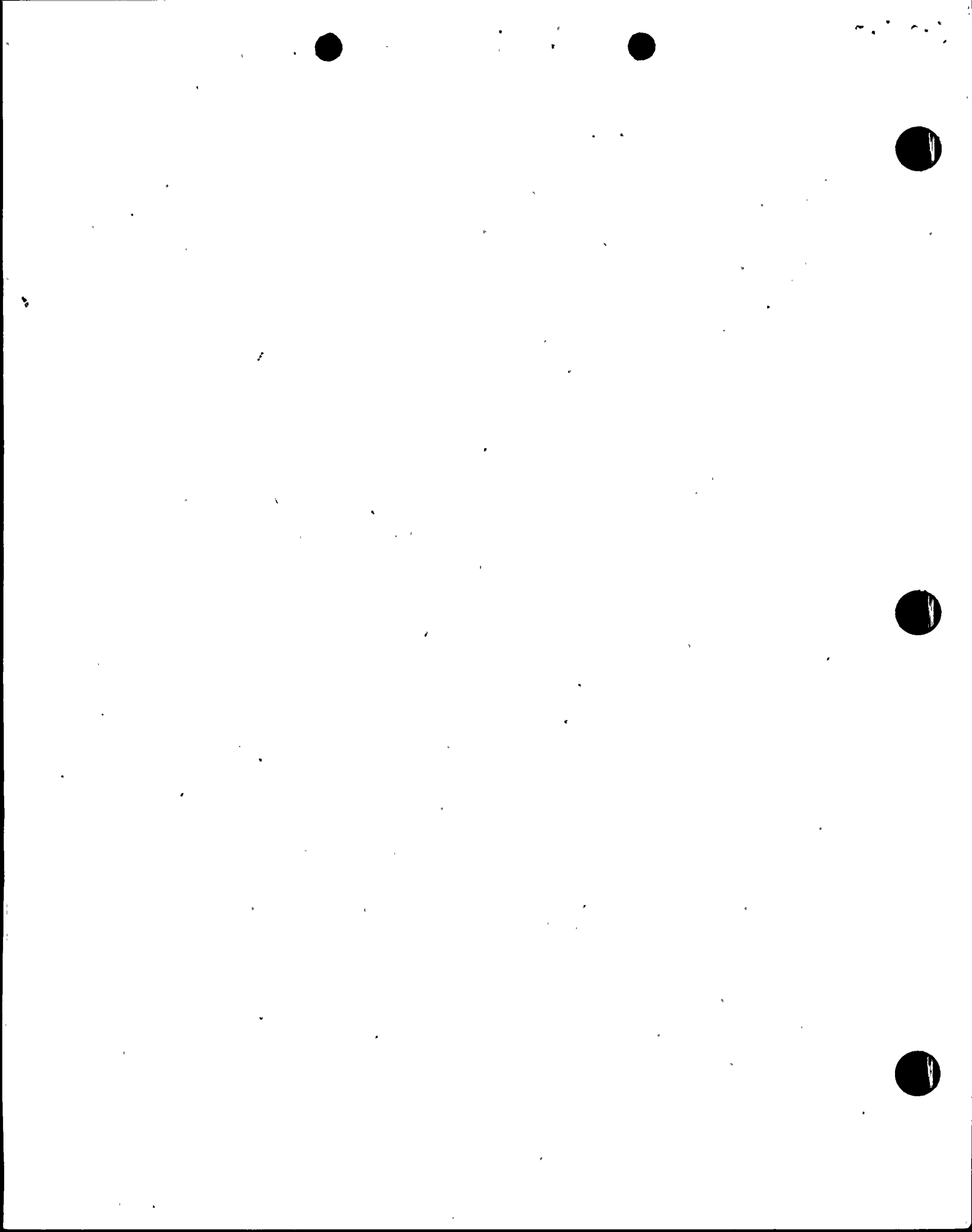
6. Advanced Job Planning and Preparation

- a. The inspector attended two outage preplanning meetings. The first meeting was attended by health physics supervision only. The topic of discussion was the previous critique of events during the movement of the "A" steam generator lower assembly and the upcoming move of the "C" steam generator lower assembly. Lessons learned from the first move were being applied to reduce exposure, control of personnel, etc. These meetings are held frequently and appear to be very useful.

The second meeting attended was a daily meeting which is held between various licensee departments and the prime contractor in charge of steam generator repairs. Approximately eighteen people were involved at this meeting including two members of the licensee's health physics staff. A review of the previous days work was completed and upcoming work, in detail, was projected for three days. All personnel had input during this meeting and the flow of information seemed adequate.

7. Training

- a. The prime contractor makes use of a mock up steam generator for training personnel in jumps and all related work. In addition the licensee has purchased a Westinghouse training film that runs for approximately one-half hour and deals exclusively with tube marking, plugging, etc. inside the steam generators. This film is viewed by all involved personnel.
- b. During the course of this inspection the inspector attended a portion of an in progress training class being given to contractor personnel. The course is presented with a combination of lectures and slides and appears adequate. The course covers information required by 10 CFR 19, and Appendix A to Regulatory Guide 8.13 concerning exposure to radiation during pregnancies. This course also contains a time period devoted to the discussion of radwaste reduction.
- c. Training records for personnel were selectively reviewed and no deficiencies were noted. A licensee representative stated that all health physics technicians involved with steam generator work view the Westinghouse training film covering all normal aspects of steam generator work. The inspector stated that this training should be formally documented training.



8. External Radiation Exposure Control

- a. The inspector observed the wearing of TLD badges and pocket chambers by workers during tours of the RCA. The inspector discussed the control and monitoring of radiation exposure with health physics personnel and various other licensee representatives. The inspector had no further questions.
- b. The inspector discussed with licensee representatives how radiation exposures were maintained below the limits established in 10 CFR 20.101. Licensee representatives stated that twice each working day the exposure of each individual working in the radiation controlled area (RCA) is updated with pocket dosimeter information obtained during the preceding day. The information is posted on the bulletin board near the change out area in the RCA. The information is presented by groups, e.g., health physics, instrumentation and control, maintenance, operating nuclear, electrical, visitors, and sub-contractors. In addition, the names of those individuals who are restricted from the RCA because they have reached an administrative limit are put on a restricted list and those who reach 80% of an administrative limit are put on an alert list. The first administrative limit for people with completed NRC-4 forms is 2150 millirem. Each supervisor is sent a copy of the current exposures for each individual working for him so that he can uniformly distribute exposures over his work force. The inspector noted the posting of the current radiation exposure report in the RCA, noted workers consulting the list, noted foremen consulting the list, and had no further questions.

9. Respiratory Protection Program

- a. By review of records, observation by the inspector, and discussions with licensee representatives the inspector evaluated the respiratory protection program for compliance with 10 CFR 20.103, Regulatory Guide 8.15, NUREG 0041, and plant procedures. Technical Specification 6.11 requires that procedures for personnel radiation protection be consistent with the requirement of 10 CFR 20 and be maintained and adhered to for all operations involving personnel radiation exposure. Records of air samples, bioassays, MPC-hours, medical evaluations, training, and respiration maintenance and fit tests were selectively reviewed and appeared to be adequate.
- b. Section 9.8 of NUREG-0041 states that each compressed gas cylinder should have a label indicating that it contains pure breathing air or pure breathing oxygen as appropriate. The inspector noted that no readily discernible label was evident on licensee cylinders. A licensee representative stated that compressed gas cylinders would be appropriately labeled. Section 9.2 of NUREG-0041 states that emergency respiratory equipment must be inspected after each use and at least monthly to ensure proper working condition. A record of inspection



dates and findings should be kept on all devices. Licensee representatives stated that as only new respirators are stored for emergency use, an inventory of these devices is all that is required. The inspector stated that even new respirators can deteriorate, that these devices should be given a thorough inspection, and that inspection tags should accompany each inspected respirator (81-21-02).

- c. The inspector discussed certification of regulators for self contained breathing apparatus (SCBA) with the licensee. SCBA manufacturers recommend that regulators be checked and recertified annually. The cognizant licensee representative stated that he was unaware of this recommendation and will contact the manufacturer and take the appropriate action.
- d. The inspector reviewed respirator protection procedures HP-60, "Respiratory Protection Manual," and HP-90, "Inventory of Emergency Equipment." HP-60 requires that after cleaning, inspection, repair, and testing, respiratory protective equipment be stored in plastic, paper bags, or storage cases. Equipment must not be exposed to direct sunlight, heat, extreme cold, excessive moisture, or other chemical environments likely to cause damage. The respirators must be packed or stored so that they are not damaged by adjacent equipment or twisted out of their normal configuration by improper storage. On October 14, 1981, the inspector observed 150 respirators stored in large plastic bags but stacked in total disarray resulting in the respirators being twisted from their normal configuration. The storage area is an outside metal building with no climate controls which, resulted in the respirators being exposed to excessive heat and possibly moisture. the inspector stated that not properly storing respirators is failure to follow HP-60 in violation of Technical Specification 6.11 (81-21-01).
- e. Plant procedure HP-90 requires that respiratory protective equipment be tested monthly for operability. This interval may be adjusted $\pm 25\%$ of accommodate scheduling. The procedure also requires emergency equipment to be inventoried annually. On October 14, 1981, the inspector noted four self contained breathing apparatus (SCBA) units, including respirators, stored in the Auxiliary Building Hot Locker room. The inspection tag for the SCBA units indicated that they had last been inspected August 29, 1981. Two respirators in the units were last inspected on August 1, 1981, one respirator was last inspected on January 2, 1981. The remaining respirator did not have an inspection tag. The inspector asked for the last annual inventory performed on emergency respiratory protective equipment pursuant to HP-90 and was informed that the inventory had not been conducted. The inspector stated that not performing monthly inspections of respiratory equipment and conducting annual inventories of emergency respirator equipment is failure to follow HP-90 and another example of a violation of Technical Specification 6.11 (81-21-01).

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10. Posting and Control

a. Posting

The inspector observed the posting on bulletin boards throughout the plant of the notices and reports required by 10 CFR 19.11. No violations or deviations were observed by the inspector.

b. Warning Signs

The inspector toured the Radiation Control Area and observed the posting of warning signs and the locking of access points to certain areas. The inspector conducted an independent radiation survey at selected locations to assure that areas were posted and locked as required by 10 CFR 20.203(c)(1) and Technical Specification 6.13.1, respectively. No violations or deviations were observed by the inspector.

11. Surveys

- a. The licensee is required by 10 CFR 20.201(b) to perform such surveys as may be necessary to comply with regulations. The inspector verified that surveys were being taken by the licensee and had no further questions.
- b. The licensee is required by 10 CFR 20.401(b) to maintain records showing the results of their surveys. The inspector examined selective radiological surveys for the period September 1 through October 14, 1981, and had no further questions.

12. Radiation Work Permits (RWPs)

The inspector selectively reviewed RWPs posted at the entrance to the Radiation Control Area (RCA). The inspector selectively reviewed Terminated RWPs for the period September 1 through October 14, 1981. The inspector observed a Health Physics Shift Supervisor discussing with maintenance personnel the radiation safety requirements for specific work and issuing RWPs. The inspector toured the auxiliary building, Unit 3 containment, and radwaste building and observed the implementation of RWP requirements for selected operations. Procedure HP-1, Radiation Work Permit, requires that specified work be done in accordance with the conditions of an RWP. The inspector questioned workers during the containment tour, and also during other tours of the RCA, as to their knowledge of RWP requirements and radiation exposure levels. These workers were well aware of work conditions and RWP requirements. No violations or deviations were observed by the inspector.

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