P.O. BOX 529100 MIAMI, FL 33152

USNRC REGION II
ATLANTA, GEORGIA

81 JUL 20 A 9: 40

FLORIDA POWER & LIGHT COMPANY

July 13, 1981
L-81-258

Mr. James P. O'Reilly, Director, Region II
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

Re: Turkey Point Units 3 & 4
Docket No. 50-250 and 50-251
I&E Inspection Report Nos. 50-250/80-37,
50-251/80-35 and 15000039/80-23

The purpose of this letter is to supplement information previously provided in FPL letter L-81-130 dated March 27, 1981. L-81-130 was written in response to the NRC letter dated March 2, 1981 wherein Turkey Point 3 & 4 was assessed with a Severity Level III Violation for failure to comply with 49 CFR 173.392(c)(1). In the NRC's opinion this was due to the fact that 21 of the containers in a low level radioactive waste shipment were found to have been punctured.

Subsequent to receiving that notice, FPL wrote to the Department of Transportation (DOT) seeking an interpretation of the provisions in 49 CFR 173.392(d) as they applied to this situation.

The DOT has determined that under the provisions of 49 CFR 173.392(d), if a shipment of material meets all of the provisions of the aforementioned section, any containers which the shipper may elect to use are not required to meet the criteria for a strong, tight package. A copy of the DOT's response, dated May 4, 1981, is attached.

The subject shipment from Turkey Point 3 & 4 did meet the requirements of 173.392(d). We hereby request that NRC reassess this violation in accordance with our letter L-81-130.

Very truly yours,

Robert E. Uhrig
Vice President
Advanced Systems & Technology

REU/JEM/ah

cc: Harold F. Reis, Esquire

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

APR 15 1981

Florida Power and Light Company
ATTN: R. E. Uhrig, Vice President
Advanced Systems and Technology
P. O. Box 529100
Miami, FL 33152

Gentlemen:

Subject: Report Nos. 50-250/80-37, 50-251/80-35 and 15000039/80-23

Thank you for your letter of March 27, 1981, informing us of steps you have taken to correct the noncompliance concerning activities under NRC Operating License Nos. DPR-31 and DPR-41 brought to your attention in our letter of March 2, 1981. We have examined your corrective actions and have no further questions at this time.

We have reviewed your response to our findings and your disagreement with the assigned Severity Level III classification. Your position that the closed transport vehicle was the container and thus the punctured drums did not represent a breach of container integrity is inconsistent with your shipment records, which clearly indicate the individual drums were the intended containers. The shipment of punctured drums is evidence that your controls for assuring compliance with the requirements for 49 CFR 173.392 were not adequate.

In view of the above, we continue to regard the punctured drums in your shipment No. 80-082 as a Severity Level III violation as cited in our Notice of Violation dated March 2, 1981.

We appreciate your cooperation with us.

Sincerely,

Paul J. Kellogg

for R. C. Lewis, Acting Director
Division of Resident and
Reactor Project Inspection

cc: H. E. Yaeger, Plant Manager

81 MAR 30 A 9: 40

FLORIDA POWER & LIGHT COMPANY

March 27, 1981
L-81-130

Mr. James P. O'Reilly, Director, Region II
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

Re: RII:
50-250/80-37
50-251/80-35

Florida Power & Light Company has reviewed the subject inspection report and a response is attached.

There is no proprietary information in the report.

Very truly yours,

Robert E. Uhrig
Vice President
Advanced Systems & Technology

REU/JEM/ras

Attachment

cc: Harold F. Reis, Esquire

Finding:

As a result of the inspection conducted on December 9, 1980, and in accordance with the Interim Enforcement Policy, 45 FR 66754 (October 7, 1980), the following violation was identified.

> 10 CFR 71.5(b) requires that "the licensee comply with the applicable requirements of . . . 49 CFR Parts 170 - 189." 49 CFR 173.392(c)(1) requires that "Materials must be packaged in strong, tight packages so that there will be no leakage of radioactive material under conditions normally incident to transportation."
>
> Contrary to the above, on December 9, 1980, 21 barrels in this shipment delivered to the Chem-Nuclear burial site at Barnwell South Carolina were not strong, tight packages in that there were punctures in the sides which permitted the contents to spill onto the trailer bed.
>
> This is a Severity Level III Violation (Supplement V.C.(1)).

Response:

We acknowledge that twenty-one drums contained in shipment No. 80-082 were punctured. However, we disagree that those containers were required to be strong tight packages for purposes of transportation. On the contrary, shipment No. 80-082 could have been transported unpackaged because the content of the shipment was a LSA radioactive material, was transported in a closed transport vehicle assigned for the sole use of the Turkey Point Plant and, otherwise met the criteria stipulated in 10 CFR 173.392(D)(1)(iii). This paragraph provides that materials of low radioactive concentration may be transported unpackaged; ". . . if the average estimated radioactivity concentration does not exceed 0.001 millicurie per gram and the contribution from Group I material does not exceed one percent of the total radioactivity. The average estimate of radioactive concentration of the material in shipment No. 80-082 was 1.2×10^{-7} millicurie per gram. However, the material was containerized in 55 gallon drums primarily to satisfy conditions in the Barnwell Site Disposal Criteria.

In view of the above, we disagree that the punctured drums in shipment No. 80-082 constitutes a Severity Level III violation. On the otherhand, there was no intent to allow the shipment to include drums which were punctured and Florida Power & Light Company management has expressed considerable concern that it happened. Consequently, an immediate investigation was initiated at the time of the incident and appropriate corrective measures quickly implemented in order to prevent a reoccurrence. In that regard, we are submitting the following information which previously was transmitted to the Bureau of Radiological Health of the State of South Carolina, Department of Health and Environmental Control.

Based upon our investigation into this incident we were able to determine that the drums were damaged because of an equipment problem, and that our failure to detect the damage was a consequence of a weakness in our inspection procedures.

In as much as each container was inspected completely just prior to being loaded onto the transport vehicle, we were able to conclude that any damage occurred while positioning the containers within the transport vehicle. By evaluating the type and location of the damage on the drums it was determined that the punctures were caused by the loading blades on the fork lift. We also learned that the drum lifting device used to load the shipment was a new piece of equipment. Subsequently, we were able to determine that it was possible for the blades of the forklift to protrude through the fork guides on the drum lifting device and contact could be made between the fork blades and the drum.

To prevent a recurrence of this incident the following corrective actions and procedural modifications have been implemented:

a) The incident was reviewed with plant personnel who have assigned responsibilities in radioactive waste handling and management and appropriate precautions urged.

b) All of the drum lifting devices used for radioactive drum handling have physcial modifications designed to preclude the fork lift blades from protruding beyond the fork guides.

c) Additional inspection requirements have been added to Turkey Point's Health Physics Procedure HP-46, Shipping and Receiving Radioactive Material so that all packages in addition to being inspected before they are loaded will now also be inspected after they have been positioned on the transport vehicle.

d) To further strengthen our package inspection requirements, the procedural modifications to HP-46 have been incorporated into the appropriate QC check sheets as QC hold points.

Finally, the circumstances involving Turkey Point shipment No. 80-082 clearly illustrate a conflict between 10 CFR 173.392(C)(1), 173.392(D)(1) and Supplement V.C.1. Specifically the NRC has classified the incident to be a Severity Level III violation for a breach of package integrity in packages that were not required for transportation. In view of this, we believe that the NRC should reevaluate their criteria under Supplement V and reclassify this more appropriately as a level VI violation. We suggest the criteria for a Security Level III ought to be "Breach of integrity of a package required for transportation".

STATE OF FLORIDA)
) ss.
COUNTY OF DADE)

Robert E. Uhrig, being first duly sworn, deposes and says:

That he is a Vice President of Florida Power & Light Company, the Licensee herein;

That he has executed the foregoing document; that the statements made in this said document are true and correct to the best of his knowledge, information, and belief, and that he is authorized to execute the document on behalf of said Licensee.

Robert E. Uhrig

Robert E. Uhrig

Subscribed and sworn to before me this

27 day of March, 1981

Cheryl I. Fredrick

NOTARY PUBLIC, in and for the county of Dade, State of Florida

My commission expires: Notary Public, State of Florida at Large My Commission Expires October 30, 1983 Bonded thru Maynard Bonding Agency

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

MAR 2 1981

In Reply Refer To:
RII:TCM
15000039/80-23
50-250/80-37
50-251/80-35

Florida Power and Light Company
ATTN: R. E. Uhrig, Vice President
Advanced Systems and Technology
P. O. Box 529100
Miami, FL 33152

Gentlemen:

This refers to an unannounced inspection conducted by T. C. MacArthur of this office on December 9, 1980.

Areas examined during the inspection and our findings are discussed in the enclosed inspection report. Within these areas, the inspection consisted of a review of the shipping papers, placarding and labeling requirements, radiation measurements, selective contamination surveys, and observations by the inspector. A shipment of radioactive waste shipped from your Turkey Point facility was inspected upon arrival at the Chem-Nuclear Systems, Inc., Barnwell, South Carolina disposal site.

During the inspection, it was found that certain activities under your license appear to be in noncompliance with NRC requirements. This item and references to pertinent requirements are listed in the Notice of Violation enclosed herewith as Appendix A. Under the new enforcement policy, breach of package integrity is classified as a Severity III violation. This severity level normally results in the imposition of a civil penalty. However, the violation cited in Appendix A regarding the packaging of radioactive materials in strong, tight containers was specifically addressed by the State of South Carolina. The State of South Carolina issued a civil penalty of $1000. In that a civil penalty was imposed by the State for this violation, no further civil penalty action will be taken by the NRC. However, we do request a detailed response to the questions addressed to you in Appendix A, Notice of Violation.

In accordance with Section 2.790 of the NRC's "Rules of Practice", Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you (or your contractor) believe to be proprietary, it is necessary that you make a written application within 20 days to this office to withhold such information from public disclosure. Any such application must include a full statement of the reasons on the basis of which it is claimed that the information is proprietary, and should be prepared so that proprietary information identified in the application is contained in a separate part of the document. If we do not hear from you in this regard within the specified period, the report will be placed in the Public Document Room.

MAR 2 1981

Should you have any questions concerning this letter, we will be glad to discuss them with you.

Sincerely,

James P. O'Reilly

James P. O'Reilly
Director

Enclosures:
1. Appendix A, Notice of Violation
2. Inspection Report Nos. 50-250/80-37 and 50-251/80-35

cc w/encl:
C. M. Wethy, Plant Manager
N. Weems, Assistant QA Construction Manager

APPENDIX A

NOTICE OF VIOLATION

Florida Power and Light Company
Turkey Point 3 and 4

Docket Nos. 50-250 and 50-251
License Nos. DPR-31 and DPR-41

As a result of the inspection conducted on December 9, 1980, and in accordance with the Interim Enforcement Policy, 45 FR 66754 (October 7, 1980), the following violation was identified.

> 10 CFR 71.5(b) requires that "the licensee comply with the applicable requirements of ... 49 CFR Parts 170 - 189." 49 CFR 173.392(c)(1) requires that "Materials must be packaged in strong, tight packages so that there will be no leakage of radioactive material under conditions normally incident to transportation."
>
> Contrary to the above, on December 9, 1980, 21 barrels in this shipment delivered to the Chem-Nuclear burial site at Barnwell, South Carolina were not strong, tight packages in that there were punctures in the sides which permitted the contents to spill onto the trailer bed.
>
> This is a Severity Level III Violation (Supplement V.C.(1)).

Pursuant to the provisions of 10 CFR 2.201, Florida Power and Light Company is hereby required to submit to this office within twenty-five days of the date of this Notice, a written statement or explanation in reply, including: (1) admission or denial of the alleged violation; (2) the reasons for the violation if admitted; (3) the corrective steps which have been taken and the results achieved; (4) corrective steps which will be taken to avoid further violations; and (5) the date when full compliance will be achieved. Under the authority of Section 182 of the Atomic Energy Act of 1954, as amended, this response shall be submitted under oath or affirmation.

Date: MAR 2 1981

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

Special Report: WASTE PACKAGING INSPECTIONS OF LICENSEE-SHIPPERS REPORT NO. 50-250/80-37 AND 50-251/80-35

Licensee-Shipper: Florida Power and Light Compnay
ATTN: R. E. Uhrig, Vice President
Advanced Systems and Technology
P. O. Box 529100
Miami, FL 33152

Disposal Site: Chem-Nuclear Systems, Inc.
P. O. Box 726, Barnwell, South Carolina 29812
Docket No. 15000039

Inspector: T. C. MacArthur, Radiation Specialist, FF&MS Section, FF&MS Branch — 2/23/81 Date Signed

Approved by: for J. P. Potter, Chief, FF&MS Section, FF&MS Branch — 2/23/81 Date Signed

SUMMARY

Inspection Dates: December 9, 1980 visit to Chem-Nuclear Waste disposal site, Barnwell, South Carolina for unannounced inspections of licensee-shippers.

Areas Reviewed: Each licensee-shipper vehicle was inspected for compliance with Department of Transportation (DOT) and Nuclear Regulatory Commission (NRC) regulations as follows: (1) shipping paper requirements; (2) DOT Placarding requirements; (3) radiation levels; (4) removable contamination; (5) DOT marking and labeling requirements for packages; (6) DOT and NRC requirements for external package features, and (7) prohibited articles or contents.

Results: Of the seven areas inspected involving shipments, one item of noncompliance was identified.

DETAILS

1. Persons Contacted

E. Williams, South Carolina, DHEC
J. Purvis, CNSI
J. Ott, CNSI
A. J. Gould, FP&L
J. Sullivan, FP&L
P. Hughes, FP&L

2. General

The NRC inspection consisted of a review of the shipping papers, radiation survey of the vehicle, contamination surveys and radiation level surveys of selected packages. General surveys and observations were conducted to determine if the vehicle had proper placards, proper seals, and if any obvious safety hazards existed. The contents of the vehicles were inspected for appropriate marking, labeling, tightness of seals, integrity of package construction or any evidence of leakage.

Chem-Nuclear assigns a control number for each shipment upon arrival at the site. These numbers were called "shipment survey report numbers" (SSR No.) and were used by the inspectors to identify licensee-shippers during this inspection.

3. Shipments Inspected

One shipment of waste material was received from the Turkey Point Plant in trailer #1720 on December 9, 1980. The shipment, carried by Chem-Nuclear Systems, Inc., (Trailer #28) identified by SSR #23844 was found to be in violation of 49 CFR 173.392(c)(1) in that there was leakage of material from some of the barrels. This is a Severity Level III violation (Supplement V).

4. Shipping Papers

The shipping papers were reviewed for completeness and to ascertain if the contents of the shipment were properly identified, and if emergency notification procedures and instructions were included as required under 49 CFR 172, Subpart C. Specific requirements for shipping papers were reviewed as follows:

Material shipping name	-	49 CFR 172.100/172.200/172.202
Material class	-	49 CFR 172.200/172.202
Name sequence	-	49 CFR 172.200/172.202
Total quantity (volume)	-	49 CFR 172.200/172.202
Limited quantity	-	49 CFR 172.200/172.203
Name of each radionuclide	-	49 CFR 172.203
Physical and chemical form	-	49 CFR 172.203
Activity in curies	-	49 CFR 172.203

In addition to the above, 49 CFR 177.817 requires carriers to maintain the above shipping papers readily available for inspection and recognizable by authorities in case of an accident.

No items of noncompliance were identified.

5. Each vehicle was inspected for conformance with DOT placarding requirements (49 CFR 172, Subpart F and 49 CFR 173.392). The vehicles were also inspected for compliance with the following:

   Maximum transportation index of 50 - (49 CFR 177.842)
   Loaded so as to avoid spillage (49 CFR 177.842)
   Properly blocked and braced (49 CFR 173.392/177.842)
   LSA vehicle survey (49 CFR 177.843)

   No items of noncompliance were identified.

6. Maximum Radiation Levels

   Each truck was surveyed for maximum radiation levels in the normally occupied portions of the vehicle, in a vertical plane at the edge of the flatbed or at the surface of the closed vehicles, in a vertical plane six feet from the sides of the vehicle where possible, and on the surface of a representative package. Shipping cask were surveyed at the surface.

   No levels were in noncompliance with 49 CFR 173.393 limits.

7. Packaging

   A representative sampling of packages from each shipment was examined for conformance with DOT marking and labeling requirements. External features of the packages were examined for conformance with DOT and NRC requirments as noted below:

Low specific activity (LSA) packaging	-	49 CFR 173.392
Tight packages - ltd. Qty.,	-	49 CFR 173.391 or 173.392
No release of material	-	49 CFR 173.392/173.393
Radioactive material markings	-	49 CFR 172.310
Security seals	-	49 CFR 173.393
Gross weight requirements	-	49 CFR 172.310
Proper shipping name	-	49 CFR 172.100/172.300
LSA labeling	-	49 CFR 173.392
Cask design specifications	-	49 CFR 173.393a

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

MAR 1 0 1981

In Reply Refer To:
RII:MBS
50-250/80-36
50-251/80-34

Florida Power and Light Company
ATTN: R. E. Uhrig, Vice President
Advanced Systems and Technology
P. O. Box 529100
Miami, FL 33152

Gentlemen:

Thank you for your letter of February 24, 1981, informing us of steps you have taken to correct the violation concerning activities under NRC Operating License Nos. DPR-31 and DPR-41 brought to your attention in our letter of January 30, 1981. We will examine your corrective actions and plans during subsequent inspections.

We appreciate your cooperation with us.

Sincerely,

Paul Kellogg for

R. C. Lewis, Acting Director
Division of Resident and Reactor
Project Inspection

cc: H. E. Yaeger, Plant Manager

FLORIDA POWER & LIGHT COMPANY

February 24, 1981
L-81-63

Mr. James P. O'Reilly, Director, Region II
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Dear Mr.O'Reilly:

Re: Turkey Point Units 3 & 4
Docket Nos. 50-250, 50-251
Inspection Report Nos. 80-36 and 80-34

Florida Power & Light Company has reviewed the subject inspection reports and a response is attached.

There is no proprietary information in the report.

Very truly yours,

for Robert E. Uhrig
Vice President
Advanced Systems and Technology

REU/PLP/ras

Attachment

cc: Harold F. Reis, Esquire

ATTACHMENT

RE: Turkey Point Units 3 & 4
Docket Nos. 50-250, 50-251
Inspection Report Nos. 80-36 and 80-34

Finding:

Technical Specification 6.8.1 requires implementation of written procedures and administrative policies that meet or exceed the requirements and recommendations of Section 5.1 and 5.3 of ANSI 18.7 - 1972 and USNRC Regulatory Guide 1.33.

Procedure 0103.11 requires that following maintenance, safety related systems are restored to their normal condition.

Contrary to the above, during facility tours of Units 3 and 4 this inspection period, it was noted that maintenance supervisors failed to implement existing procedures to ensure complete restoration of safety related systems to normal operating condition following maintenance in that:

1. The Mechanical Supervisor on shift during the completion of maintenance on Unit 4 blender station failed to have the pipe support between manual isolation valve 4363 and flow control valve 4114A made up and the wooden wedges providing temporary support removed at conclusion of maintenance activity.

2. The Mechanical Supervisor on shift during the completion of maintenance on the Unit 3 Boron Injection Tank failed to have the insulation over the manway cover properly replaced at the conclusion of the maintenance activity.

3. Electrical Supervisors allowed the spray tight covers for all heat tracing thermostats to be left off as a routine practice instead of properly positioned at the conclusion of maintenance activities.

Response:

1. (1-1) FPL concurs with the finding.

(1-2) This particular pipe support was either inadvertently omitted due to lack of follow-up or was still in the process of being repaired at the time this finding was noticed. This was found during the hanger and pipe support inspections and repairs pursuant to I and E Bulletin 79-79-02 which were in progress when Unit 4 was in cold shutdown condition for its annual overhaul/refueling.

(1-3) As corrective action, the pipe support in question was returned to its original configuration in December 1980.

(1-4) As corrective action in order to avoid further problems, a procedure is being developed to control removal, reinstallation, and maintenance of hangers and pipe supports by plant maintenance forces in order to:

a) Prevent recurrence of the same type of problem.

b) Provide guidelines for returning hangers and/or pipe supports to their original configuration after their removal for maintenance

c) Provide guidelines on the specifications for each type of bolt on each hangers (i.e., torqueing of bolts)

(1-5) This procedure is now being formulated. It is being actively pursued and it is scheduled to be reviewed and approved by April 27, 1981. Full compliance will be achieved when it is approved.

2. (2-1) FPL concurs with the finding.

(2-2) The insulation on the Unit 3 Boron Injection Tank manway cover was not reinstalled after maintenance due to lack of follow-up.

(2-3) As corrective action, the insulation on the manway cover in question was reinstalled prior to January 1981.

(2-4) As corrective action to avoid further problems, we are taking the following steps:

A specific crew will be designated to maintain each nuclear unit's primary systems. The supervisor in charge of each crew will be responsible for compliance with applicable plant procedures (including AP 0103.11) and following up after his crew completes each job. This responsibility will be implemented by instructing personnel and dessiminating job descriptions. One of the two crews assigned to primary systems will be responsible for housekeeping.

(2-5) Full compliance will be achieved no later than March 27, 1981.

3. (3-1) FPL concurs with the finding.

(3-2) The practice in the finding developed gradually following several instances of varying degrees of solidification in boric acid systems requiring heat tracing. The Electrical Maintenance Department initiated weekly checks of each heat tracing circuit to verify proper circuit operation. Many minor adjustments and repairs were made as a result of these checks. Most of these adjustments and repairs required access to the heat tracing thermostat boxes. The practice of not replacing the covers evolved due to the awareness that the cover being reinstalled would probably be removed again with a week. Also, this practice allowed the shift operators to make minor thermostat adjustments to a circuit during times when Electrical personnel were not available.

(3-3) In order to improve the reliability and performance of the heat tracing circuits, the originally installed Chromalox type heat tracing circuits are being replaced with a much improved Chemelex type. The replacement program is planned to continue until all heat tracing circuits are replaced. The new type of heat tracing has already proven to be more reliable and to require far less maintenance. Consequently, for the new circuits there is no need to leave the covers off.

(3-4) Corrective action that will be taken;

a) Installation of covers which are now available.

b) The installation of necessary replacement covers which have been ordered.

c) Meetings within the Electrical Department will be held to stress the importance of the re-installation of these covers.

d) Preventive Maintenance Program plant work orders will be revised to include a specific step calling for installation of the covers following the work.

(3-5) Full compliance is scheduled to be completed by May 15, 1981.

STATE OF FLORIDA)
) ss.
COUNTY OF DADE)

E. A. Adomat, being first duly sworn, deposes and says:

That he is Executive Vice President of Florida Power & Light Company, the Licensee herein;

That he has executed the foregoing document; that the statements made in this said document are true and correct to the best of his knowledge, information, and belief, and that he is authorized to execute the document on behalf of said.

E. A. Adomat

Subscribed and sworn to before me this 24 day of February, 1981

Cheryl I. Fredrick
NOTARY PUBLIC, in and for the County of Dade, State of Florida

My commission expires: Notary Public, State of Florida at Large My Commission Expires October 30 1983 Bonded thru Maryland Bonding Agency

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

FEB 6 1981

Florida Power and Light Company
ATTN: R. E. Uhrig, Vice President
P. O. Box 529100
Miami, FL 33152

Gentlemen:

Subject: Report No. 50-251/80-36

This refers to the routine inspection conducted by E. H. Brooks of this office on December 29-31, 1980, of activities authorized by NRC Operating License No. DPR-41 for the Turkey Point facility, and to the discussion of our findings held with J. K. Hayes at the conclusion of the inspection.

Areas examined during the inspection and our findings are discussed in the enclosed inspection report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector.

Within the scope of this inspection, no violations or deviations were disclosed.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you (or your contractor) believe to be proprietary, it is necessary that you make a written application within 20 days to this office to withhold such information from public disclosure. Any such application must include a full statement of the reasons on the basis of which it is claimed that the information is proprietary, and should be prepared so that proprietary information identified in the application is contained in a separate part of the document. If we do not hear from you in this regard within the specified period, the report will be placed in the Public Document Room.

Should you have any questions concerning this letter, we will be glad to discuss them with you.

Sincerely,

R. C. Lewis

R. C. Lewis, Acting Chief
Reactor Operations and Nuclear
Support Branch

Enclosure: (See Page 2)

FEB 6 1981

Enclosure:
Inspection Report No. 50-251/80-36

cc w/encl:
H. E. Yaeger, Plant Manager

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

Report No. 50-251/80-36

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

Facility Name: Turkey Point

Docket No. 50-251

License no. DPR-41

Inspection at Turkey Point site near Homestead, Florida

Inspector: H. E. Whitener (for) 2/6/81
E. H. Brooks Date Signed

Approved by: R.C. Lewis for 2/6/81
D. Quick, Section Chief, RONS Branch Date Signed

SUMMARY

Inspection on December 29-31, 1980

Areas Inspected

This routine, announced inspection involved 20 inspector-hours on site in the areas of containment integrated leakage rate testing.

Results

Of the areas inspected, no violations or deviations were identified.

DETAILS

1. Persons Contacted

Licensee Employees

*J. K. Hayes, Plant Superintendent
D. Haase, Technical Department Supervisor
R. Gouldy, Plant Engineer
B. Abrishami, Plant Engineer

Other Organizations

Stone and Webster

B. C. Kuechler
R. I. Parry

NRC Resident Inspector

A. Ignatonis
W. Marsh

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on December 31, 1980 with those persons indicated in Paragraph 1 above.

3. Licensee Action on Previous Inspection Findings

Not inspected.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Containment Integrated Leakage Rate Test (CILRT) - Unit 4

The inspector reviewed the licensee's Containment Integrated Leakage Rate Test Procedure 13100.2 dated December 18, 1980. The procedure includes the valve lineup and verification sheets, valve lineup schematics, and instrumentation and control instrument list. The inspector observed the pressurization phase of the CILRT, inspected the installation of compressors, and reviewed the valve lineup verification data sheets.

Containment pressurization was initiated at 0600 hours on 12/30/80. Pressurization was stopped at approximately 25 psig to survey containment for leaks. Minor leaks were identified at vents or drains at penetrations 7, 47, 9, 10, 52, 64A and 64B. No attempts were made to adjust valves or

isolate the leaks. Pressurization was then continued until 2105 hours on 12/30/80 at which time containment pressure reached 68.7 psia and the compressors were secured and vented. The containment was allowed to stabilize until 0140 hours on 12/31/80. At this point the change in containment average temperature did not exceed 0.5 degrees F per hour over a two hour period. Leakage rate testing (data collection) started at 0520 hours on 12/31/80.

Using the absolute test method mass point analysis, calculated leakage decreased from 0.166299 to 0.102597 weight percent per 24 hours over a 6 hour period. The leakage rate acceptance limit for Turkey Point unit 4 is 0.1875 (.75La). At 1120 hours on 12/31/80 a leak occured causing the calculated leakage rate to increase to above the acceptance limit. A survey team was dispatched to search for the cause of the increased leakage. Automatic valve CV-4668A at penetration 52 was discovered to be leaking via the valve bonnet. The valve was in the open position as required and verified on the valve lineup sheets. However, the correct valve position was indicated as closed on the valve lineup schematics.

The licensee concluded that leakage occured due to failure of the diaphragm seal which was inadvertantly exposed to the containment pressure with the valve in the open position. During a LOCA this valve would be closed automatically to act as the containment boundary thereby isolating the diaphragm seal from containment pressure. Considering that the leak occured under conservative circumstances the licensee considered it acceptable to close the valve by automatic actuation. Data collection was again started at 1900 hours on 12/31/80, continued for 24 hours and included the controlled leakage verification test. The containment was brought to atmospheric pressure on 1330 hours on 1/2/81.

Calculated leakage at the end of the testing period was 0.030 weight percent per 24 hours as compared to the acceptance limit of 0.1875 weight percent per 24 hours.

A CILRT summary technical report will be submitted to the Commssion in approximately 3 months.

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

JAN 30 1981

Florida Power and Light Company
ATTN: R. E. Uhrig, Vice President
P. O. Box 529100
Miami, FL 33152

Gentlemen:

Subject: Report Nos. 50-250/80-36 and 50-251/80-34

This refers to the routine safety inspection conducted by A. J. Ignatonis and W. C. Marsh of this office on November 1-30, 1980, of activities authorized by NRC Operating License Nos. DPR-31 and DPR-41 for the Turkey Point facility. Our preliminary findings were discussed with H. E. Yaeger at the conclusion of the inspection.

Areas examined during the inspection and our findings are discussed in the enclosed inspection report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspectors.

During the inspection, it was found that certain activities under your license appear to violate NRC requirements. This item and references to pertinent requirements are listed in the Notice of Violation enclosed herewith as Appendix A. Elements to be included in your response are delineated in Appendix A.

One new unresolved item is identified in the enclosed inspection report. This item will be examined during subsequent inspections.

In accordance with Section 2.790 of the NRC "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC Public Document Room. If this report contains any information that you believe to be proprietary, it is necessary that you make a written application within 20 days to this office to withhold such information from public disclosure. Any such application must include the basis for claiming that the information is proprietary and the proprietary information should be contained in a separate part of the document. If we do not hear from you in this regard within the specified period, the report will be placed in the Public Document Room.

Should you have any questions concerning this letter, we will be glad to discuss them with you.

Sincerely,

R. C. Lewis

R. C. Lewis, Chief
Reactor Operations and Nuclear
Support Branch

Enclosures: (See Page 2)

JAN 30 1981

Enclosures:
1. Appendix, Notice of Violation
2. Inspection Report Nos.
   50-250/80-36 and 50-251/80-34

cc w/encl:
H. E. Yaeger, Plant Manager
P. O. Box 013100
Miami, Florida 33101

APPENDIX A

NOTICE OF VIOLATION

Florida Power and Light Co.
Turkey Point Units 3 and 4

Docket Nos. 50-250
and 50-251
License Nos. DPR-31
and DPR-41

As a result of the inspection conducted on November 1-30, 1980, and in accordance with the Interim Enforcement Policy, 45 FR 66754 (October 7, 1980), the following violation was identified.

Technical Specification 6.8.1 requires implementation of written procedures and administrative policies that meet or exceed the requirements and recommendations of sections 5.1 and 5.3 of ANSI 18.7-1972 and USNRC Regulatory Guide 1.33.

Procedure A.P. 103.11 requires that following maintenance; safety related systems are restored to their normal condition.

Contrary to the above, during facility tours of Units 3 & 4 this inspection period, it was noted that maintenance supervisors failed to implement existing procedures to ensure complete restoration of safety related systems to normal operating condition following maintenance in that:

1. The Mechanical Supervisor on shift during completion of maintenance on the Unit 4 blender station failed to have the pipe support between manual isolation valve 4363 and flow control valve 4114A made up and the wooden wedges providing temporary support removed at conclusion of the maintenance activity.

2. The Mechanical Supervisor on shift during the completion of maintenance on the Unit 3 Boron Injection Tank failed to have the insulation over the manway cover properly replaced at the conclusion of the maintenance activity.

3. Electrical Supervisors allowed the spray tight covers for all heat tracing thermostats to be left off as a routine practice instead of being properly positioned at the conclusion of maintenance activities.

This is a Severity Level V Violation (Supplement I.F).

Pursuant to the provisions of 10 CFR 2.201, FP&L is hereby required to submit to this office within twenty-five days of the date of this Notice, a written statement or explanation in reply, including: (1) admission or denial of the alleged violation; (2) the reasons for the violation if admitted; (3) the corrective steps which have been taken and the results achieved; (4) corrective steps which will be taken to avoid further violations; and (5) the date when full compliance will be achieved. Under the authority of Section 182 of the Atomic Energy Act of 1954, as amended, this response shall be submitted under oath or affirmation.

Date: JAN 30 1981

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

JAN 30 1981

Report Nos. 50-250/80-36 and 50-251/80-34

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, Florida

Inspector: M. Shymlock for 1/27/81
A. J. Ignatonis — Date Signed

Accompanying Personnel: M. Shymlock for 1/27/81
W. C. Marsh — Date Signed

Approved by: C. A. Julian 1/29/81
C. A. Julian, Acting Section Chief, RONS Branch — Date Signed

SUMMARY

Inspection on November 1-30, 1980

Areas Inspected

This routine inspection involved 144 inspector-hours on site. During this reporting period Unit 4 has been shutdown for an 8 week refueling outage. Unit 3 has been restarted following a scheduled maintenance outage, but subsequently experienced two unscheduled shutdowns in the latter part of November. The areas of inspection were: followup on previous unresolved items; licensee event report followup; licensee action on an IE Bulletin followup; surveillance test observation; plant operations which included general observations of Unit 4 refueling evaluations; and plant tours.

Results

Of the six areas inspected no apparent violations or deviations were identified in five areas; one apparent violation was found in one area (Violation - Failure to fully restore minor portions of the safety related systems to normal conditions following maintenance - Paragraph 4).

4. Followup on Previous Unresolved Items

(Closed) (50-250/80-33, 50-251/80-32-02) Failure to fully restore a safety system to operation following maintenance. Based upon further inspection, the inspector concluded that this item was one example of a failure to implement procedures. (50-250/80-36-01, 50-251/80-34-01) .See Paragraph 10.

5. New Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items or may involved violations or deviations. The unresolved item disclosed during this inspection is discussed in Paragraph 7.

6. Licensee Event Report Followup.

During this inspection the following Licensee Event Reports were followed up:

a. 50-250/80-04 "A" Emergency Diesel Generator Update Report No. 2

b. 50-250/80-17 Nuclear Instrumentation System Channel N-43

c. 50-250/80-20 Technical Specification 4.5.2.a Missed Surveillance

For LER No. 50-250/80-17 the inspector has noted that an additional corrective action was taken other than provided in the report. This was the replacement of the detector associated with channel N-43. Testing of the N-43 channel following cable replacement (stated corrective action in the LER) revealed unsatisfactory response characteristics. Consequently, the detector was replaced as well. This placed the system in an acceptable operating condition.

No violations or deviations were identified within the areas inspected.

7. Licensee Action on IE Bulletins

(Open) IE Bulletin 80-20 Failures of Westinghouse Type W-2 Spring Return to Neutral Control Switches

The inspector reviewed the licensee's response to the subject bulletin dated September 16, 1980. Response to item 2 of the bulletin was a commitment by the Licensee to perform continuity testing of the affected control switches used in safety-related applications at least every 92 days after the initial test. These continuity tests are planned to be discontinued after implementation of a longer term corrective action.

The inspector followed up on the licensee's adherence to the surveillance frequency of the control switches by talking to the Assistant Electrical Superintendent, and found that the quarterly inspection has been performed on Unit 3, but missed on Unit 4. Subsequently the licensee took prompt

DETAILS

1. Persons Contacted

Licensee Employees

*H. E. Yaeger, Site Manager
*J. K. Hays, Plant Manager-Nuclear
*J. E. Moore, Operations Superintendent-Nuclear
D. W. Haase, Technical Department Supervisor
V. B. Wager, Operations Supervisor
J. Wade, Chemistry Supervisor
G. G. Jones, Nuclear Plant Supervisor
J. E. Crockford, Nuclear Plant Supervisor
C. A. Coker, Nuclear Plant Supervisor
T. A. Finn, Nuclear Plant Supervisor
L. C. Huenniger, Nuclear Plant Supervisor
J. L. Whitehead, Nuclear Plant Supervisor
D. C. Bradford, Refueling Coordinator
C. Baker, Construction Coordinator
W. A. Klein, Licensing Engineer
B. Abrishami, Systems Test Engineer
B. C. Kilpatrick, Asst. Superintendent Nuclear Maintenance-Secondary
*J. P. Mendietta, Maintenance Superintendent
D. W. Jones, QC Supervisor
W. Williamson, Asst. Superintendent Electrical Maintenance
*S. Feith, QA Supervisor Operations

Other licensee employees contacted included operators, craftsmen, technicians, security personnel, QC personnel, and engineering personnel.

NRC Resident Inspector

*A. J. Ignatonis
*W. C. Marsh

*Attended monthly exit interview

2. Monthly Exit Interview

An interview was conducted on December 5, 1980 with the plant management personnel. The inspectors summarized the scope and findings of the month of November inspection activities to the persons indicated in Paragraph 1 above. The site and plant managers acknowledged the stated violation and agreed to take corrective action.

3. Licensee Action on Previous Inspection Findings

Not inspected during this inspection report period.

action in conducting the inspection. This item will be carried as an unresolved item (50-251/80-34-02) pending NRC's acceptance of the licensee's proposed surveillance interval in response to the subject bulletin.

8. Surveillance Test Observation

During this inspection period a portion of the monthly surveillance test of the High Head Safety Injection System was witnessed by the inspector. This test was performed on November 12, 1980 in accordance to Operating Procedure 4104.1, "High Head Safety Injection System-Periodic Test".

The following items were verified:

a. Testing is scheduled in accordance with technical specification requirements.

b. Procedures are being followed.

c. Testing is by qualified personnel.

d. LCOs are being met.

e. System restoration is correctly accomplished following testing.

No violations or deviations were identified for the areas inspected above.

9. Plant Operations

The inspector kept informed on a daily basis of the overall plant status and any significant safety matters related to plant operations. Discussions were held with plant management and various members of the operations staff on a regular basis. Selected portions of daily operating logs and operating data sheets were reviewed on at least a weekly basis during the report period.

The inspector conducted various plant tours and made frequent visits to the control room. Observations included witnessing work activities in progress, status of operating and standby safety systems, confirming valve positions, instrument readings and recordings, annunciator alarms, housekeeping, radiation area controls, and vital area controls.

Informal discussions were held with operators and other personnel on work activities in progress and status of safety-related equipment or systems.

During the routine plant operations inspection conducted on November 19, 1980, the resident inspector was present in the control room when Unit 3 experienced a feedwater control problem. The transient resulted in a reactor trip due to low steam generator (S/G) "A" level, conincident with a steam flow/feed flow mismatch and the shearing of a 2" non-safety-related tertiary S/G fill and chemical recirculation line.

The line broke at the weld which connected it to the S/G "B" bypass feed line. Hot feedwater flowing from the break resulted in the loss of several hundred gallons per minute for approximately 30 minutes. Licensee personnel using air eductors and water hoses cleared the area of steam vapor, pinpointed the leak, and manually isolated the break.

The auxiliary feedwater system functioned normally and maintained S/G levels without difficulty. All safety systems functioned normally following the trip.

The inspector attended licensee management meetings which discussed their recovery plans. Action items conducted during this period included:

- disassembly and repair of the "B" bypass feed regulating valve
- calibration of all feed regulating bypass valves
- Plant Change Memorandum (PCM) issued to remove and capweld the other 2" fill and chemical recirculating lines connected to the bypass feedlines
- visual inspections of all condensate and feedwater systems inside and outside containment.

The inspector observed the reactor startup following the repair conducted by the licensee. The startup to 25% reactor power was normal at which time problems were noted with the "A" main feed regulating valve. The unit's turbine generator was taken off line and the reactor was maintained critical while the valve was inspected. The inspection revealed that the valve plug had broken off the stem. The valve was repaired and tested, then the unit was returned to service.

The inspector will evaluate the LER to be submitted by the licensee related to this occurrence.

For Unit 4 the inspector's observed refueling evolutions including such activities as the removal of the reactor vessel upper internal component and fuel shuffle operations.

No violations or deviations were identified within the areas inspected.

10. Tours

During tours of the Auxiliary Building, the inspector noted three instances in which minor portions of safety related systems had not been fully restored to normal operating condition after maintenance. The information which follows further describes the violation.

Plant Administrative procedure A.P 103.11, "Housekeeping" assigns certain post maintenance responsibilities to maintenance supervisors for verification of restoration of the work area after work is complete. In the procedure housekeeping is defined as: "Housekeeping - the control of work activities, conditions and environments that affect the overall cleanliness of the facility, and material and equipment located in or near nuclear safety-related areas." During inspector tours it was noted that this procedure was not followed in that:

a. The Unit 4 Blender Station pipe support was not replaced and a temporary support removed following completion of the maintenance.

b. The Unit 3 Boron Injection Tank insulated manway cover was not reinstalled following maintenance completed in January 1978.

c. Unit 3 and Unit 4 heat tracing systems spray tight covers for the heat tracing circuit thermostats were routinely left not installed.

Failure of the supervisors involved to implement the requirements of AP 103.11 constitute three examples of a single violation of Technical Specification 6.8.1 which requires written procedures and administrative policies that meet or exceed the reqirements and recommendations of ANSI 18.7-1972 paragraphs 5.1 and 5.3 be implemented (50-250/80-36-01, 50-251/80-34-01).

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

DEC - 2 1980

IE FILE COPY

In Reply Refer To:
RII:BRC
50-250/80-34

Florida Power and Light Company
ATTN: R. E. Uhrig, Vice President
P. O. Box 529100
Miami, FL 33152

Gentlemen:

This refers to the inspection conducted by B. R. Crowley of this office on November 13-14, 1980 of activities authorized by NRC Operating License No. DPR-31 for the Turkey Point facility, and to the discussion of our findings held with J. K. Hays at the conclusion of the inspection.

Areas examined during the inspection and our findings are discussed in the enclosed inspection report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector.

Within the scope of this inspection, no items of noncompliance were disclosed.

We have examined actions you have taken with regard to previously reported unresolved items. The status of these items is discussed in the enclosed report.

In accordance with Section 2.790 of the NRC's "Rules of Practice", Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you (or your contractor) believe to be proprietary, it is necessary that you make a written application within 20 days to this office to withhold such information from public disclosure. Any such application must include a full statement of the reasons on the basis of which it is claimed that the information is proprietary, and should be prepared so that proprietary information identified in the application is contained in a separate part of the document. If we do not hear from you in this regard within the specified period, the report will be placed in the Public Document Room.

Should you have any questions concerning this letter, we will be glad to discuss them with you.

Sincerely,

C. E. Murphy, Chief
Reactor Construction and Engineering
Support Branch

Enclosure: (See Page 2)

Enclosure: Inspection Report
No. 50-250/80-34

cc w/encl:
H. E. Yaeger, Plant Manager

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

Report No. 50-250/80-34

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

Facility Name: Turkey Point

Docket No. 50-250

License No. DPR-31

Inspection at Turkey Point site near Homestead, Florida

Inspector: A R Herdt for B. R. Crowley — 11/26/80 Date Signed

Approved by: A R Herdt, A. R. Herdt, Section Chief, RC&ES Branch — 11/26/80 Date Signed

SUMMARY

Inspection on November 13-14, 1980

Areas Inspected

This routine, unannounced inspection involved 11 inspector-hours on site in the area of IEB 79-13 feedwater line repairs.

Results

No items of noncompliance or deviations were identified.

DETAILS

1. Persons Contacted

Licensee Employees

*J. K. Hays, Plant Manager - Nuclear
*R. E. Tucker, Senior QA Engineer - Level III Examiner
*G. Gotch, PRN Staff - General Office
*H. T. Young, Project Construction Supervisor
*J. F. O'Brien, Project QC Supervisor
*D. W. Jones, Quality Control Supervisor

Other Organizations

L. Bennet, Welding Engineer (Bechtel Corporation)

NRC Resident Inspectors

*A. Ignatonis
W. Marsh

*Attended exit interview.

2. Exit Interview

The inspection scope and findings were summarized on November 14, 1980, with those persons indicated in Paragraph 1 above. The status of reporting in accordance with IEB 79-13 was discussed. Now that feedwater reducers have been replaced on both units, and LERs written for both units reference reporting in accordance with IEB 79-13, the licensee agreed to evaluate final reporting requirements and comply with these requirements.

3. Licensee Action on Previous Inspection Findings

(Closed) Unresolved Item 250/80-20-02, "Linear Indications S/G "A" Feedwater Nozzle". The indications were investigated during the most recent outage as followup to IEB 79-13. One of the indications was determined to be a crack. Subsequently cracks were found in all three feedwater reducers. The reducers were replaced. (See Paragraph 5. for further information.) This matter is considered resolved.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. IE Bulletin (IEB)

(Open) 79-BU-13, Cracking in feedwater system piping. During inspection of welding activities relative to change-out of cracked feedwater reducers in Unit 4 (see IE:RII Reports 50-250/80-20 and 50-251/80-17), the NRC inspector re-reviewed the film for Unit 3 reducer to nozzle welds. During this review possible linear indications were noted at stations 5 - 7 and 12 - 20 in the reducer base material of loop "A". During the recent outage the indications were investigated visually, by radiographic inspection (RT), and by ultrasonic inspection (UT). The UT inspection verified the RT indication at station 12 - 20 to be a crack. The licensee then UT inspected all three loop feedwater reducers and found cracks in all three. The reducers were cut-out and replaced. The applicable Code for the replacement was ANSI B31.1, 1977 edition, S79 addenda. Welding procedures and welders were qualified in accordance with ASME, Section IX. The inspector reviewed the following records relative to the replacement:

a. Audits - The following QA audits performed during the replacement were reviewed:

QAO-PTP-80-10-313
QAO-PTP-80-10-312
QAO-PTP-80-10-315

b. Welding Records - The inspector reviewed welding records as listed below for welds FW 1-A (reducer to pipe) and FW 1-B (nozzle to reducer):

(1) "Weld Traveler"

(2) "Filler Metal Withdrawl Authorization"

(3) "Fitup to Root Visual Inspection Report"

(4) "Final Pass Visual Inspection Report"

(5) "Radiographic Test and Interpretation Report"

(6) "Post Weld Heat Treatment Inspection Report" including strip chart recording (Weld 1-B only)

(7) Repair records (Weld 1-B)

(8) Welder qualification records for welders performing welding on above two welds

(9) QC and NDE qualification records for inspectors performing inspections on above two welds.

c. RT Film - The inspector reviewed final film for the following welds:

FW 1-A (reducer to pipe)
FW 1-A (nozzle to reducer)
FW 1-B (nozzle to reducer)
FW 1-C (nozzle to reducer)

Within the areas inspected, no items of noncompliance or deviations were identified.

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

NOV 03 1980

IE FILE COPY

In Reply Refer To:
RII:TDG
50-250/80-32

Florida Power and Light Company
ATTN: R. E. Uhrig, Vice President
P. O. Box 529100
Miami, FL 33152

Gentlemen:

This refers to the inspection conducted by T. D. Gibbons of this office on October 8-10, 1980, of activities authorized by NRC Operating License DPR-31 for the Turkey Point facility, and to the discussion of our findings held with H. E. Yaeger at the conclusion of the inspection.

Areas examined during the inspection and our findings are discussed in the enclosed inspection report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector.

Within the scope of this inspection, no items of noncompliance were disclosed.

In accordance with Section 2.790 of the NRC's "Rules of Practice", Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you (or your contractor) believe to be proprietary, it is necessary that you make a written application within 20 days to this office to withhold such information from public disclosure. Any such application must include a full statement of the reasons on the basis of which it is claimed that the information is proprietary, and should be prepared so that proprietary information identified in the application is contained in a separate part of the document. If we do not hear from you in this regard within the specified period, the report will be placed in the Public Document Room.

Should you have any questions concerning this letter, we will be glad to discuss them with you.

Sincerely,

C. E. Murphy

C. E. Murphy, Chief
Reactor Construction and Engineering
Support Branch

Enclosure: (See Page 2)

NOV 03 1980

Enclosure:
Inspection Report No. 50-250/80-32

cc w/encl:
H. E. Yaeger, Plant Manager

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

Report No. 50-250/80-32

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

Facility Name: Turkey Point 3

Docket No. 50-250

License No. DPR-31

Inspection at Turkey Point site near Homestead, Florida

Inspector: T. D. Gibbons — 10/27/80
T. D. Gibbons — Date Signed

Approved by: T. E. Conlon — 11-3-80
T. E. Conlon, Section Chief, RC&ES Branch — Date Signed

SUMMARY

Date of Inspection on October 8-10, 1980

Areas Inspected

This special, announced inspection involved 16 inspector-hours on site in the areas of installed equipment review with respect to IE Bulletin 79-01B.

Results

Of the areas inspected, no items of noncompliance or deviation were identified.

DETAILS

1. Persons Contacted

Licensee Employees

*H. E. Yeager, Plant Manager
*J. K. Hayes, Plant Manager, Nuclear
J. P. Mendieta, Maintenance Superintendent
S. M. Feith, QA Operations Supervisor
J. Lowman, I&C Supervisor
L. Craig, Electrical Engineer, General Office

NRC Resident Inspector

W. Marsh, A. Ignatonis

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on October 10, 1980 with those persons indicated in Paragraph 1 above.

3. Licensee Action on Previous Inspection Findings

Not inspected.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. IE Bulletin 79-01B

A physical examination was made of installed electrical instrumentation and control equipment associated with the Containment Ventilation (CV) and Component Cooling Water (CCW). The equipment that was examined is located outside the primary containment. The specific equipment is listed below:

Containment Ventilation

Plant ID. No.	Discription	Vendor
RD-3-11, RD-3-12	Radiation Detector	Tracerlab
PT-3-1623	Pressure Transmitter	W Motorola
PT-3-1622	Pressure Transmitter	W Motorola
SV-3-3713	Solenoid Valve	Automatic Switch Company (ASCO)

SV-3-3709	Solenoid Valve	Automatic Switch Co.
SP-3-2057	Pressure Switch	Static-O-Ring
PS-3-2007	Pressure Switch	Static-O-Ring
PS-3-2056	Pressure Switch	Static-O-Ring
PS-3-2009	Pressure Switch	Static-O-Ring
PS-3-2058	Pressure Switch	Static-O-Ring
PS-3-2008	Pressure Switch	Static-O-Ring

Component Cooling Water

PC-3-611	Pressure Controler	United Electric Controls Company
FT-3-613B	Flow Transmitter	Fischer & Porter
FT-3-613A	Flow Transmitter	Fischer & Porter
3N211-A	Local Control Station	Mackworth G. Rees Div.
3N211B	Local Control Station	Mackworth G. Rees Div.
3N211C	Local Control Station	Mackworth G. Rees Div.
3P211A	CCW Pump Motor	Westinghouse
3P211B	CCW Pump Motor	Westinghouse
3P211C	CCW Pump Motor	Westinghouse
2 Limit Swtiches	Part of CV-3-2814	National Acme Mfg Co. (NAMCO)
2 Limit Switches	Part of CV-3-2812	National Acme Mfg Co. (NAMCO)
2 Limit Switches	Part of CV-3-2810	NAMCO
Associated with CV-3-2814	Solenoid Valve	ASCO
SV-3-2812	Solenoid Valve	ASCO
SV-3-2810	Solenoid Valve	ASCO
SV-3-2922	Solenoid Valve	ASCO
SV-3-2921	Solenoid Valve	ASCO
SV-3-2920	Solenoid Valve	ASCO

The equipment inspected was examined for proper installation and overall interface integrity, and the manufacturer's name plate data was obtained. The name plate data was compared to the information listed on the Licensee's IEB 79-01B component Evaluation Sheets (CES). It was noted that SV-3-2922 as listed on CES had been removed and replaced with a new solenoid as part of Plant Work Order 067027.

Within the areas examined, there were no items of noncompliance identified.

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

JAN 12 1981

In Reply Refer To:
RII:MS
50-250/80-33
50-251/80-32

Florida Power and Light Company
ATTN: R. E. Uhrig, Vice President
P. O. Box 529100
Miami, FL 33152

Gentlemen:

This refers to the inspection conducted by A. Ignatonis of this office on October 1-31, 1980, of activities authorized by NRC Operating License Nos. DPR-31 and DPR-41 for the Turkey Point facility, and to the discussion of our findings held with J. K. Hays at the conclusion of the inspection.

Areas examined during the inspection and our findings are discussed in the enclosed inspection report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspectors.

Within the scope of this inspection, no items of noncompliance were disclosed.

We have examined actions you have taken with regard to previously identified enforcement matters. These are discussed in the enclosed inspection report.

Two new unresolved items resulted from this inspection and are discussed in the enclosed report. These items will be examined during subsequent inspections.

In accordance with Section 2.790 of the NRC's "Rules of Practice", Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you (or your contractor) believe to be proprietary, it is necessary that you make a written application within 20 days to this office to withhold such information from public disclosure. Any such application must include a full statement of the reasons on the basis of which it is claimed that the information is proprietary, and should be prepared so that proprietary information identified in the application is contained in a separate part of the document. If we do not hear from you in this regard within the specified period, the report will be placed in the Public Document Room.

Should you have any questions concerning this letter, we will be glad to discuss them with you.

Sincerely,

R. C. Lewis

R. C. Lewis, Acting Chief
Reactor Operations and Nuclear
Support Branch

Enclosure: Inspection Report Nos.
50-250/80-33 and 50-251/80-32

cc w/encl:
H. E. Yaeger, Plant Manager

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

Report Nos. 50-250/80-33 and 50-251/80-32

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

Facility Name: Turkey Point

License Nos. DPR-31 and DPR-41

Docket Nos. 50-250 and 50-251

Inspection at Turkey Point Site near Homestead, Florida

Inspectors: C. Julian for — 1/7/81
A. J. Ignatonis — Date Signed

C. Julian, for — 1/7/81
W. C. Marsh — Date Signed

Approved: C. Julian for — 1/7/81
R. D. Martin, Section Chief, RONS Branch — Date Signed

SUMMARY

Inspection on October 1-31, 1980

Areas Inspected

This routine inspection involved 238 inspector hours onsite. During this reporting period Unit 3 was shutdown for outage work while Unit 4 was in operation. The areas of inspection were: (1) confirmation of the licensee's implementation of the TMI Task Action Plan Category "A" item requirements; (2) surveillance test observations; (3) surveillance of safety-related system components inside Unit 3 containment; (4) plant operations which included observations of licensee receipt inspection of new fuel for Unit 4, Eddy Current testing of Unit 3 steam generator tubes, Unit 3 feedwater nozzle replacement work activities, and general housekeeping inspection of Unit 3 containment just prior to startup; and (5) plant tours.

Results

For all of the areas inspected, no apparent items of noncompliance or deviations were identified.

DETAILS

1. Persons Contacted

Licensee Employees

*H. E. Yaeger, Site Manager
*J. K. Hays, Plant Manager - Nuclear
J. E. Moore, Operations Superintendent - Nuclear
D. W. Haase, Technical Department Supervisor
W. C. Miller, Acting Training Supervisor
V. B. Wager, Operations Supervisor
J. Wade, Chemistry Supervisor
P. W. Hughes, Health Physics Supervisor
G. G. Jones, Nuclear Plant Supervisor
T. A. Finn, Nuclear Plant Supervisor
J. E. Crockford, Nuclear Plant Supervisor
C. A. Coker, Nuclear Plant Supervisor
L. C. Huenniger, Nuclear Plant Supervisor
J. L. Whitehead, Nuclear Plant Supervisor
V. A. Kaminskas, Reactor Engineering Supervisor
D. C. Bradford, Refueling Coordinator
W. R. Williams, Assistant Superintendent Electrical Maintenance
*J. P. Mendietta, Maintenance Superintendent
J. Lawman, I&C Department Supervisor
*D. W. Jones, QC Supervisor
*S. M. Feith, QA Operations Supervisor

Other licensee employees contacted included operators, craftsmen, technicians, security personnel, QA and QC personnel, and engineering personnel.

Other Organizations

*R. D. Martin, USNRC Region II

NRC Resident Inspectors

*A. J. Ignatonis
*W. C. Marsh

*Attended monthly exit interviews

2. Monthly Exit Interview

An interview was conducted on October 29, 1980 with the plant management personnel. The inspector summarized the scope and findings of the inspection activities with the persons indicated in Paragraph 1 above.

3. Licensee Action on Previous Inspection Findings

(Closed) Deficiency (50-250/80-01 and 50-251/80-01) - improper storage of radioactive material. The inspector reviewed the licensee's corrective action and had no further questions.

(Closed) Infraction (50-250/80-02 and 50-251/80-01) - inadequate maintenance procedure for the MSIV and MSCV operator disassembly/reassembly work. As a corrective action the licensee revised and provided a separate procedure for maintenance of the MSCV, and one for the MSIV. The inspector reviewed the procedures and had no further questions.

(Closed) Infraction (50-250/80-01 and 50-251/80-01) - failure to follow through the disposition of the MSCV steam antirotation devices. The inspector reviewed the licensee's corrective action and had no further questions.

4. Unresolved Items

Unresolved items are matters about which more information is required to determine whether they are acceptable or if they constitute noncompliance or deviations. New unresolved items identified during this inspection are identified in paragraph 4.a and 4.b.

a. Failure To Take Timely Corrective Action on QC Surveillance

A review was made of the action taken to resolve deficiencies identified in QC surveillance report 80-257 concerning auxiliary building housekeeping conducted 8/14/80. The inspector conducted an inspection of the auxiliary building 10/23/80 and noted numerous housekeeping deficiencies which seemed to be of long standing. The licensee confirmed that as of 10/23/80 no corrective action had been taken. This item is unresolved pending determination by the inspector whether this is an isolated case or an example of a larger problem with failure to take appropriate action with respect to followup on QC surveillances (250/80-33-01, 251/80-32-01).

b. Failure to Fully Restore a Safety System to Operation Following Maintenance

Heat tracing thermostats are housed in a closure equipped with a gasketed cover which is secured in place with two screws. It has been the practice of licensee personnel to leave the covers unsecured and rotated down exposing the thermostat internals to whatever ambient conditions exist in each location. Two thermostats on the 18 foot elevation in the boron addition tank room exhibit indications that leakage from the tanks/piping systems was dripping into the uncovered thermostat closures. The existing covers were installed and secured in place shortly after the matter was raised with the Assistant Maintenance Superintendent,

Electrical. He committed to fabricate and install replacement covers for the several thermostats and other junction and connection boxes which were missing covers, as soon as practicable. This item is unresolved pending determination by the inspector of the design requirements for the covers to be in place with respect to maintaining the qualification of the thermostats to function properly. (250/80-33-02, 251/80-32-02)

5. Followup on Implementation of Short Term Lessons Learned

On April 7, 1980 the Office of Nuclear Reactor Regulation (NRR) of the NRC issued an evaluation of the licensee's compliance with Category "A" items of NRC recommendations resulting from TMI-2 Leasons Learned. This NRR evaluation disclosed that the licensee had satisfied all Category "A" requirements. Certain items are being followed up by the Office of Inspection and Enforcement (IE). The following provides an itemized update on the IE follow-up of the Category A requirements. (Inspection Report 50-250/80-26, 50-251/80-26 also documents follow-up in this area):

2.1.4 Containment Isolation

There is an apparent discrepancy between the administrative controls implemented for certain manual valves as described in inspection report 50-250/80-26, 50-251/80-26 paragraph 5 and the administrative controls described in the safety evaluation issued by NRR April 7, 1980 with respect to the assignment of a "dedicated operator" to shut the manual valves in the event of a high-high containment pressure alarm or when the evolution which caused them to be opened is completed. The licensee has committed to resolve the discrepancy with NRC via correspondence. The licensee's alternative proposal will be provided to NRR by November 14, 1980. This item will be carried as a follow-up item pending further inspection of the implementation of administrative controls agreed upon between the licensee and NRR.

(Closed) 2.1.6.a Integrity of Systems Outside Containment

NUREG 0578 requirements for integrity of systems outside containment were reviewed against OP 0206.4 "Periodic Visual Leak Inspection of Systems Outside the Containment for Control of Radioactive Material Leakage," and associated leak tests and maintenance reports by the Health Physics Appraisal Team. See inspection report 50-250/80-17, 50-251/80-15 paragraph 8a.

2.1.8.b Increased Range of Radiation Monitors

Existing effluent monitoring equipment and normal and accident monitoring procedures were reviewed by the Health Physics Appraisal Team (see inspection report 50-250/80-17, 50-251/80-15 paragraphs 8a and 8c) and by other regional inspectors (see inspection report 50-250/80-22, 50-251/80-22).

The high range noble gas monitor and the high range radiation monitors are expected to be delivered by January 1981. The high range radiation monitors for Unit 4 containment are scheduled for installation during the November 9, 1980 - January 10, 1981 outage. The noble gas monitor and the Unit 3 containment radiation monitors are scheduled for installation during the March-April 1981 outage. NC 72 "Sampling and Analysis of Radionuclides in the Main Steam System" makes provisions for real time monitoring of main steam during atmospheric dump or main steam safety releases. This item will be carried as a follow-up item pending further inspection after receipt, installation, and testing of the noble gas monitor and high radiation in containment monitors.

(Closed) 2.1.8.c Improved In-Plant Iodine Instrumentation

The inspector has verified onsite availability of the silver zeolite cartridges. A back-up counting facility consisting of a motor-home mounted Nuclear Data 680 system with GeLi detector is functional. Nuclear chemistry personnel are currently being trained in the use of the new system. Air monitoring procedures were reviewed by the Health Physics Appraisal Team (see inspection report 50-250/80-17, 50-251/80-15 paragraph 6j).

(Closed) (250, 251/80-06-01) The inspector reviewed emergency procedures EP 20000 "Immediate Actions and Diagnostics," EP 20001 "Loss of Reactor Coolant," EP 20002 "Loss of Secondary Coolant," and EP 20003 "Steam Generator Tube Rupture" for inclusion of the recommended changes of inspection report 50-250/80-06, 50-251/80-06 paragraph 6 and had no further questions.

(Closed) (250, 251/80-06-02) The inspector reviewed the training records for all 34 licensed personnel in the area of "Natural Circulation and Void Recognition." All licensed personnel had received the training and had successfully passed a quiz covering the material. The scores ranged from a low of 81% to 100%. All personnel had completed the additional training by March 1980. The walk-through training on small break LOCA procedures was done in March for all licensed personnel. The inspector had no further questions.

6. Surveillance Test Observations

During the inspection period a quarterly major surveillance test, a monthly surveillance test, and portions of a scheduled outage surveillance test were witnessed by the inspectors. These tests were performed on Unit 3.

The quarterly test of the Emergency Containment Filter, a safety-related system, was witnessed by the inspector. This test was performed on October 26, 1980 in accordance to O.P. 4704.1, "Emergency Containment Filter - System Operating Test and Inspection." Attention was given to the following aspects of the surveillance test:

a. Review of the surveillance procedure for conformance to technical specification requirements and verified proper licensee review/approval.

b. Verification that test instrumentation was calibrated.

c. Observation of the removal of the system from service.

d. Observation of the conduct of the surveillance test.

e. Observation of the restoration of the system to service.

f. Review of the test data for accuracy and completeness. Independent calculation of selected test results' data to verify its accuracy.

g. Confirmation that surveillance test documentation is reviewed and test discrepancies are rectified.

h. Verification that test results meet technical specification requirements.

i. Verification that testing is done by qualified personnel.

j. Verification that surveillance schedule for this test was met.

The entire test was observed and reviewed. No items of noncompliance or deviations were identified for the areas inspected above.

The monthly surveillance test of the Containment Isolation Racks QR50 and QR51 was witnessed by the inspector. This test was performed on October 28, 1980 in accordance to O.P. 4004.4. "Containment Isolation Rack QR50 and QR51 - Periodic Test." The inspector verified that the procedure was correctly followed, testing was performed by qualified personnel, and that the system restoration was correctly accomplished upon completion of testing. No items of noncompliance or deviations were identified.

On October 30, 1980 portions of the Reactor Coolant System (RCS) isolation valve leakage testing performed during startup operations (heatup phase with the RHR System removed from service) were witnessed by the inspector. The majority of the RCS isolation valves tested (both check valves and motor operated valves) were performed on a voluntary basis. However, certain valves were leak tested as a part of the licensee's committment to NRR stated in the FPL letter L-80-84 to NRR, dated March 17, 1980. These valves were the ECCS check valves 3-875A, 3-875B and 3-875C, located in the Safety Injection System piping which connect to the RCS cold legs.

Leakage testing for the above valves was witnessed by the inspector. The test results have shown no conclusive evidence of valve leakage.

Testing was performed by qualified personnel, procedures were followed, and system restoration was correctly accomplished following testing. No items of noncompliance or deviations were identified.

7. Surveillance of Safety Related System Components

A portion of the normally inaccessible ESF components within the Unit 3 containment were visually inspected. The safety injection system motor and manually operated valves were selected for inspection which included observation of the general condition of the components and verification of the correct position. Valves inspected were:

a. High head SI discharge to hot legs, MOV-866A & B;
b. High head SI discharge to cold legs, 3-868A, B & C (locked open);
c. RHR/low head SI discharge to cold legs, MOV-744 A & B;
d. RHR/low head SI discharge cross connect, 3-885 (locked open) and
e. Accumulator discharge valves, MOV-865A, B & C. These valves were inspected just prior to the end of the outage.

No noncompliance or deviations were identified.

8. Plant Operations

The inspector informed himself on a daily basis of the overall plant status and any significant safety matters related to plant operations. Discussions were regularly held with plant management and various members of the operations staff. Selected portions of daily operating logs and operating data sheets were reviewed at least weekly during the report period.

The inspector conducted various plant tours and made frequent visits to the Control Room. Observations included witnessing of work activities in progress, status of operating and standby safety systems, confirmation of valve positions, instrument readings and recordings, annunciator alarms, housekeeping, radiation area controls and vital areas controls.

During the month of October, 36 new fuel assemblies were received in preparation for the upcoming refueling outage of Unit 4. The inspectors observed portions of the licensee receipt inspection and handling of the new fuel. No items of noncompliance or deviations were noted.

For Unit 3, the inspectors observed the steam generator inspection and maintenance activities. Inspectors observed and discussed Eddy Current testing and plugging of the steam generator tubes with the appropriate personnel. The inspector's questions were satisfactorily answered. Radiographs of the feedwater nozzle welds for all three steam generator were observed. This inspection supplemented UT examinations of the welds which subsequently resulted in the removal of the feedwater nozzles and replacement with new ones. The inspector followed work activities associated with the installation and integritv testing (RT examination and leak test) of the new feedwater nozzle.

A general housekeeping inspection was made by the inspector inside the Unit 3 containment just prior to reactor startup. The containment was observed to be free of debris and maintenance equipment. The overall cleanliness of the containment was satisfactory.

No items of noncompliance were identified within the areas inspected as described above.

9. Plant Tours

Frequent plant tours were made through the radiation areas and vital areas of the facility. Potential problem areas in housekeeping and plant maintenance were identified. These areas of concern have been categorized as unresolved items and are discussed in detail under paragraph 4 of this report.

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

FEB 0 3 1981

In Reply Refer To:
RII:CJ
50-250/80-31, 50-251/80-29,
50-335/80-33, 50-389/80-14

Florida Power and Light Company
ATTN: R. E. Uhrig, Vice President
P. O. Box 529100
Miami, FL 33152

Gentlemen:

This refers to the meeting held at your corporate offices in Miami, FL on October 29, 1980, at our request. This meeting was related to activities authorized by NRC License Nos. DPR-31, DPR-41, DPR-67 and CPPR-144 for the Turkey Point and St. Lucie facilities.

Our evaluation as developed from the Systematic Assessment of Licensee Performance (SALP) was presented and discussed. The results of this evaluation are included in the enclosed inspection report.

It is our opinion that this meeting was particularly beneficial in that we were able to present our evaluation of your activities, and in turn, you were able to respond directly to these evaluations.

Your positive response to the presentation is appreciated and should enhance communications with us in areas pertinent to safe reactor operations.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulation's, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room.

No reply to this letter is required; however, should you have any questions concerning these matters, we will be glad to discuss them with you.

Sincerely,

James P. O'Reilly

James P. O'Reilly
Director

Enclosure: RII Report Nos. 50-250/80-31,
50-251/80-29, 50-335/80-33,
50-389/80-14

cc w/encl: (See Page 2)

cc w/encl:
H. E. Yaeger, Plant Manager
C. M. Wethy, Plant Manager
Nat Weems, Assistant QA
Construction Manager
B. J. Escue, Plant Manager
Nat Weems, Assistant QA
Construction Manager

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

Report Nos.: 50-250/80-31, 50-251/80-29, 50-335/80-33 and 50-389/80-14

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

Facility Name: Turkey Point 3 and 4, St. Lucie 1 and 2

Docket Nos. 50-250, 50-251, 50-335, 50-389

License Nos. DPR-31, DPR-41, DPR-67, CPPR-144

Meeting at FP&L Corporate Office, Miami, Florida

Attending Personnel: See Details

Approved by: R. C. Lewis 2/2/81
R. C. Lewis, Acting Chief, RONS Branch — Date Signed

SUMMARY

Meeting conducted October 29, 1980

This special, announced management meeting was conducted to discuss the results of NRC's evaluation of FP&L's regulatory performance as concluded in the Systematic Assessment of Licensee Performance (SALP) program.

Results

A summary of the licensee performance evaluation was presented. Areas of concern were discussed with corporate management. FP&L's performance is considered to be acceptable although three areas were identified for increased inspection emphasis.

DETAILS

1. Personnel Attending Meeting

E. A. Adomat, Executive Vice President
W. R. Barr, Manager of Purchasing
J. H. Barron, Operation Superintendent of Nuclear Section
S. G. Brain, Senior Project Manager
J. A. DeMastry, Manager Nuclear Licensing
R. F. Englmeier, Assistant Manager of Quality Assurance
T. Essinger, Assistant Manager of Quality Assurance
R. D. Hankel, Assistant Manager of Nuclear Analysis
C. S. Kent, Senior Project Manager
J. R. Killingsworth, Director of Purchasing Inventory Resources
J. M. McCabe, Senior Security Coordinator
E. H. O'Neal, Assistant Chief Engineering
H. N. Paduano, Manager Power Resources Nuclear Services
A. D. Schmidt, Vice President
A. E. Siebe, Manager of Quality Assurance
H. F. Story, Power Resources Section Supervisor
R. E. Uhrig, Vice President Advanced System and Technology
J. E. Vessely, Direct Nuclear Affairs
N. T. Weems, Assistant QA Construction Manager
C. O. Woody, Manager Power Resources Nuclear

Nuclear Regulatory Commission

J. P. O'Reilly, Director, Region II
R. C. Lewis, Acting Chief, RONS Branch, Region II
R. Martin, Section Chief, RONS Branch, Region II
M. Grotenhuis, Licensing Project Manager, Turkey Point 3 and 4
J. McKinley, Chief Project Review Branch, #1 ACRS

NRC Resident Inspector

S. Elrod, Senior Resident Inspector at St. Lucie
A. Ignatonis, Senior Resident Inspector at Turkey Point
H. Bibb, Resident Inspector at St. Lucie
B. Marsh, Resident Inspector at Turkey Point

2. Areas Discussed

a. A brief summary of the Systematic Assessment of Licensee Performance (SALP) was presented to include the basis for the evaluation and its purpose.

b. The results of the SALP evaluation of the licensee's performance were discussed. FP&L's performance to date is considered acceptable although three areas were identified for increased inspection emphasis by the NRC. The SALP evaluations are contained in Enclosures 1 through 4 to this report.

c. Items of concern were discussed with corporate management to include those areas where the NRC considers additional licensee management attention may be warranted.

Enclosure 1

SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE

FOR

FLORIDA POWER AND LIGHT COMPANY

Region II

UTILITY PERFORMANCE EVALUATION

Utility: Florida Power and Light Company

Units: Turkey Point 3, 4
St. Lucie 1, 2

Appraisal Period: Turkey Point 3, 4, St. Lucie 1 - May 1, 1979 through April 30, 1980

St. Lucie 2 - September 1, 1979 through August 31, 1980

Review Board Members:

R. C. Lewis, Acting Chief, RONS Branch
C. E. Murphy, Chief, RC&ES Branch
R. Martin, Chief, Reactor Projects Section 2
J. C. Bryant, Chief, Projects Section 1
T. E. Conlon, Chief, Engineering Support Section 1
M. Grotenhuis, LPM, NRR
C. Nelson, LPM, NRR

Background

SALP evaluations for each site were generated as prerequisites to the NRC identifying the general performance level of each utility with an NRC license. These evaluations are forwarded to an interoffice review board formed of senior members from all Offices of the NRC involved in licensed activities. The board will, by virtue of receiving all SALP evaluations, form a national perspective of licensee performance. Additionally, the evaluations will provide a means for highlighting areas of NRC programs that may require changes or redirection.

In developing the site evaluations it was determined that an overall evaluation of the utility's performance in its nuclear activities was desirable. Additional enclosures document the individual site evaluations.

The utility and site evaluations were presented in a meeting with senior corporate management in order to provide the decision makers of each utility with the NRC's evaluation of its overall performance in nuclear activities.

A. Areas of Good Performance

Florida Power and Light (FP&L) is generally responsive to NRC regulations and findings of noncompliance. Reassignment of personnel at the site level has improved management effectiveness. Licensed operator performance is above average. Non-licensed operator performance warrants continued attention by the licensee.

B. Areas Where Improved Performance is Warranted

Substantive differences have been observed in performance between the two sites. This suggests there is minimal corporate involvement in day-to-day operations. FP&L exhibits a rigid view of their regulatory obligations and strives to meet the letter rather than the spirit of their commitments. This is counterproductive in dealing with the NRC. A poor attitude toward regulatory efforts exists on the part of certain individuals at the St. Lucie site. This has been brought to the attention of the corporate office.

C. Overall Evaluation

As a result of this evaluation, FP&L is considered an average performer in the Region. It should be noted that this appraisal contains the results of two team inspections. The results of the noncompliance items cannot be directly compared to other facilities which have not received these inspections. Future inspection results in these areas, compared with these results will be more indicative of both relative and absolute performance.

Enclosure 2

SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE

FOR

TURKEY POINT UNITS 3 AND 4

Region II

Licensee Performance Evaluation (Operations)

Facility: Turkey Point

Licensee: Florida Power and Light Company

Unit Identification:

Docket No.	License No./Date of Issuance	Unit No.
50-250	DPR-31/7-19-72	3
50-251	DPR-41/4-10-73	4

Reactor Information	Unit 3	Unit 4
NSSS	Westinghouse	Westinghouse
MWT	2220	2220

Appraisal Period: May 1, 1979 through April 30, 1980

These dates were used to provide a comparable basis for all operating reactors in Region II. Significant events or enforcement items occurring after these dates were considered in arriving at the indicated conclusions.

Appraisal Completion Date: October 9, 1980

Review Board Members:
R. C. Lewis, Acting Chief, RONS Branch
R. Martin, Chief, Reactor Projects Section 2
F. Jape, Acting Project Coordinator
M. Grotenhuis, LPM, NRR (contacted by telephone on 10/8/80)
A. Ignatonis, Senior Resident Inspector (contacted by telephone on 10/8/80)
W. Marsh, Resident Inspector (contacted by telephone on 10/8/80)

A. Number and Nature of Noncompliance Items

Noncompliance Category:	Unit 3	Unit 4
Violations	0	0
Infractions	13	9
Deficiencies	2	2

Areas of Noncompliance (List Areas As Required)	Unit 3 (Points)	Unit 4 (Points)
Security	0	0
Radiation Protection	40	30
Environmental	2	2
Quality Assurance	20	20
Admin/OPS/Maintenance	72	42
TOTAL POINTS	134	94

(1) The Quality Assurance and Radiation Protection areas were addressed during enforcement conferences held June 6, 1979 and October 5, 1979, respectively. Subsequent re-inspection in the QA area has closed the large majority of the noncompliances in that area.

(2) Noncompliances in the administrative area were primarily failure to provide adequate procedures and failure to follow procedures in the operation and maintenance areas. The licensee has committed to a program of procedure compliance and to upgrade the quality of procedures. This is viewed as a major step by management in improving management control of plant activities.

(3) Recent inspections have indicated signs of weakness in the area of identification, tracking; and completion of commitments to the NRC, such as corrective action to items of noncompliance or programmatic commitments. This area also remains open from the QA team visit of March 1979.

(4) Evaluation of the Health Physics program was conducted May 5-16, 1980, by a team of radiation specialists including Health Physics Inspectors from Region II. Several items remain open.

B. Number and Nature of Licensee Event Reports

Type of Events: (By Cause Codes)	Unit 3	Unit 4
Personnel Error	7	2
Design	4	2
Installation	2	2
Component Failure	12	8
Other	9	2
Not Reviewed	6	2
TOTAL	40	18

Licensee Event Reports reviewed included 250-79-01 through 250-79-40, 251-79-1 through 251-79-18, with exceptions noted.

Licensee Event Reports (LERs) showed no clear trends. Several LERs mentioned long-term corrective actions as being "scheduled". The Resident Inspector will review these actions to determine whether or not commitments are being properly tracked and managed.

C. Escalated Enforcement Actions

Civil Penalties:

None

Orders:

TMI Lessons Learned License Order issued and resolved.

Immediate Action Letters:

August 31, 1979 - Issued to confirm the operational, procedural and instrumentation actions to be taken by the licensee to avoid a future spent fuel pool overflow.

September 5, 1979 - Issued to confirm the additional steps to be taken by the licensee to account for unmonitored radioactive liquid discharges, remove or evaluate the contaminated dry well, and identify the source of activity in the storm drain system.

D. Management Conferences Held During the Twelve Months

(1) A meeting was held with FP&L management and corporate personnel in the Region II office on June 6, 1979. The meeting was to express our concerns about the effectiveness of the FP&L's Operational Quality Assurance Program and Management Control System related to Turkey Point Units 3 and 4. The meeting was held as a result of our identifying 15 items and 13 items of noncompliance on Units 3 and 4, respectively, during a QA Inspection in March 1979. A followup inspection conducted in December 1979 to determine the licensee responsiveness to our concerns closed the majority of noncompliances.

(2) A meeting was held with FP&L mangement and corporate personnel in the Region II office on October 5, 1979. The meeting resulted from two Immediate Action Letters (Paragraph C.) concerning unplanned release of radioactive water. The licensee committed to improve procedures, train personnel and to follow procedures. The Senior Resident Inspector reports a major improvement in the licensee's adherence to procedures. The HP program was inspected during the Health Physics team visit, May 5-16.

E. Justification of Evaluations of Functional Areas Categorized as Requiring an Increase in Inspection Emphasis

(1) A large number of design changes are underway as a result of TMI Lessons Learned Task Force activities and Fire Protection Safety Evaluation Report.

(2) Noncompliances in the areas of management control and review of design and maintenance activities indicate that weakness may exist in these areas.

(3) The QA program for fire protection activities has not been fully implemented.

(4) In 1980, the normal Health Physics Inspection program was modified to include only one visit by a team of radiation specialists responsible for inspection of all phases of the licensee's HP program. The team concluded that the licensee's HP program was above average.

Increased emphasis in the above four areas is planned, but no change in inspection frequency is warranted.

F. Comparison of Unit 3 With Unit 4

A comparison of Unit 3 with Unit 4 did not indicate that appreciable differences exist between the units.

G. Overall Evaluation

Licensee performance is acceptable and is judged to be average for the Region. The routine inspection program will place increased emphasis in the areas of design changes, plant modifications, fire protection and health physics. No increase in inspection scope or frequency is needed.

Appendix A. - Functional Areas
Appendix B - Action Plan (Internal Use Only)

APPENDIX A

2-A-1

FUNCTIONAL AREAS (Operations)

		Inspection Frequency and/or Scope		
	FUNCTIONAL AREA	Increase	No Change	Decrease
1.	Management Control		X	
2.	Plant Operations		X	
3.	Refueling Operations and Activities		X	
4.	Maintenance		X	
5.	Surveillance and Preoperational Testing		X	
6.	Training		X	
7.	Radiation Protection		X	
8.	Environmental Protection		X	
9.	Emergency Planning		X	
10.	Fire Protection		X	
11.	Security and Safeguards		X	
12.	Design Changes and Modifications		X	
13.	Reporting		X	
14.	QA Audits		X	
15.	Committee Activities		X	
16.	Quality Control		X	
17.	Procurement		X	

R. C. Lewis
(BRANCH CHIEF)

1/12/81
(DATE)

Enclosure 3

SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE

FOR

ST. LUCIE UNIT 1

Region II

Licensee Performance Evaluation (Operations)

Facility: St. Lucie 1

Licensee: Florida Power and Light Company

Unit Identification:

Docket No.	License No./Date of Issuance	Unit No.
50-335	DPR-67/3-1-76	1

Reactor Information	Unit 1
NSSS	Combustion Engineering
MWT	2660

Appraisal Period: May 1, 1979 through April 30, 1980

These dates were used to provide a comparable basis for all operating reactors in Region II. Significant events or enforcement items occuring after these dates were considered in arriving at the indicated conclusions.

Appraisal Completion Date: October 9, 1980

Review Board Members:
R. C. Lewis, Acting Chief, RONS Branch
R. Martin, Chief, Reactor Projects Section 2
F. Jape, Acting Project Coordinator
C. Nelson, LPM, (contacted by telephone on 10/8/80)
S. Elrod, Senior Resident Inspector (contacted by telephone on 10/7/80)

A. Number and Nature of Noncompliance Items

Noncompliance Category:	Unit 1
Violations	0
Infractions	13 (3 repeats)
Deficiencies	4

Areas of Noncompliance List Areas As Required	Unit 1 (Points)
Security	72
Radiation Protection	40
Operations/Maintenance	24
Quality Assurance	20
Training	12
TOTAL POINTS	168

The radiation protection items were concentrated in the area of shipping requirements. Subsequent inspections failed to identify further problems in this area. The QA items were the result of a team QA inspection. The security items centered around failure to control accesses, especially to vital area, and searches. The other areas contain relatively low point values, indicating satisfactory performance.

B. Number and Nature of Licensee Event Reports

Type of Events:	Quantity
Personnel Error	5
Design Error	3
Installation	2
Defective Procedures	1
Component Failure	21
Other	4
TOTAL	36

Licensee Event Reports reviewed included 79-001/03L-0 through 79-036/03L.

Evaluation of the Above Tabulation:

Nine of the 36 event reports concerned the rod control system. It appears that reliability of operation is low but failure prevents rod withdrawal or results in rod insertion (dropped rod). This compilation suggests a design problem rather than equipment failure.

The personnel errors, design errors and installation errors are all personnel errors in reality. They were spread over a spectrum of responsible parties. No clear pattern emerges.

C. Escalated Enforcement Actions

Civil Penalties

None

Orders

TMI Lessons Learned Orders issued and resolved.

D. Management Conferences Held During Twelve Months

A meeting was held with FP&L facility management and corporate personnel in Region II Office on March 26, 1980, to discuss NRC's concerns about the licensee's security program at St. Lucie Unit 1. Areas of major concern were vital area accesses and searches, compounded by repeat noncompliances. Followup inspections are planned.

E. Justification of Evaluations of Functional Areas Categorized as Requiring an Increase in Inspection Frequency

The evaluation and management conference indicate a need for increased emphasis in the physical security area. Followup inspections in the physical security area will be conducted to resolve current issues. No change in routine inspection program is warranted.

F. Comparison of Unit 1 With Unit 2

A comparison of Unit 1 (in operation) with Unit 2 (in construction) is not useful for the period of this evaluation. As Unit 2 progresses through construction (estimated completion early 1982) an appropriate comparison will be available.

G. Overall Evaluation

Licensee performance is acceptable. The licensee's performance is considered average as compared with other Region II reactors. No increase in the inspection program scope or frequency is needed. The routine inspection program will place increased emphasis on plant physical security.

Appendix A - Functional Areas
Appendix B - Action Plan (Internal Use Only)

APPENDIX A

3-A-1

FUNCTIONAL AREAS (Operations)

		Inspection Frequency and/or Scope		
	FUNCTIONAL AREA	Increase	No Change	Decrease
1.	Management Control		X	
2.	Plant Operations		X	
3.	Refueling Operations and Activities		X	
4.	Maintenance		X	
5.	Surveillance and Preoperational Testing		X	
6.	Training		X	
7.	Radiation Protection		X	
8.	Environmental Protection		X	
9.	Emergency Planning		X	
10.	Fire Protection		X	
11.	Security and Safeguards		X	
12.	Design Changes and Modifications		X	
13.	Reporting		X	
14.	QA Audits		X	
15.	Committee Activities		X	
16.	Quality Control		X	
17.	Procurement		X	

R. C. Lewis
(BRANCH CHIEF)

1/12/81
(DATE)

Enclosure 4

SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE

FOR

ST. LUCIE UNIT 2

REGION II

LICENSEE PERFORMANCE EVALUATION (CONSTRUCTION)

Facility: St. Lucie, Unit 2

Licensee: Florida Power and Light Company

Unit Identification:

Docket No.	CP No./Date of Issuance	Unit No.
50-389	CPPR-144/5/2/1977	2

Reactor Information: Unit 2

NSSS	Combustion Engineering
MWt	2440

Appraisal Period: September 1, 1979 through August 31, 1980

Appraisal Completion Date: October 9, 1980

Review Board Members:
C. E. Murphy, Chief, RC&ES Branch
J. C. Bryant, Chief, Projects Section #1
T. E. Conlon, Chief, Engineering Support Section #1
C. R. McFarland, Project Inspector
R. A. Birkel, Licensing Project Manager, NRR (By Telephone)

A. Number and Nature of Noncompliance Items

Noncompliance category:	Unit 2
Violations	0
Infractions	6
Deficiencies	2

Areas of Noncompliance: (List Areas as Required)	Unit 2 (Points)
Instructions, Procedures, and Drawings	52
Part 2 Procedural Requirements	10
Environmental Concerns	2
Total Points	64

The board in its deliberation of Noncompliance Items considered that the timing of the noncompliance did not indicate a trend that would indicate any major breakdown in the licensee's QA program. The licensee's responses to the noncompliances has been found to be adequate and timely.

B. Number and Nature of Construction Deficiency Reports (CDRs)

Electrical	6
Mechanical	4
Welding	1

Only one CDR (hurricane damage) related to site work. The other CDRs related to design and component manufacturing problems.

The licensee has exercised care in evaluating CDRs and the reports have been acceptable.

C. Escalated Enforcement Actions

None during this audit period.

D. Management Conferences Held During Past Twelve Months

None.

E. Justification of Evaluations of Functional Areas Categorized as Requiring an Increase in Inspection Frequency/Scope (See evaluation sheet)

The construction activities have increased to the point that within the next twelve months windows of opportunities will be open for all modules. Cold hydro is scheduled for March 1982, and fuel loading is scheduled for October 1982. The routine NRC inspection of areas has been needed, but the routine program has been severely impacted by the reactive inspection requirements. During the appraisal period no inspections were performed by a mechanical inspector, and only one was performed by an electrical inspector. The licensee's construction and inspection programs have been maintained on schedule.

F. Comparison of Unit 2 With Unit 1

A comparison of Unit 2 (in construction) with Unit 1 (in operation) is not useful for the period of this evaluation. As Unit 2 progresses through construction (estimated completion early 1982) an appropriate comparison will be available.

G. Overall Evaluation

Inspection results reflect that the licensee's performance is adequate and average for the region. The licensee is responsive to NRC concerns.

Appendix A - Functional Areas
Appendix B - Action Plan (Internal Use Only)

APPENDIX A

4-A-1

FUNCTIONAL AREAS (Construction)

	FUNCTIONAL AREA	Inspection Frequency and/or Scope		
		Increase	No Change	Decrease
1.	Quality Assurance, Management & Training		X	
2.	Substructure and Foundations		X	
3.	Concrete		X	
4.	Liner (Containment and Others)		X	
5.	Safety-Related Structures		X	
6.	Piping & Hangers (Reactor Coolant & Others)		X	
7.	Safety-Related Components (Vessel, Internals and HVAC)		X	
8.	Electrical Equipment		X	
9.	Electrical (Tray and Wire)		X	
10.	Instrumentation		X	
11.	Fire Protection		X	
12.	Preservice Inspection		X	
13.	Reporting		X	

(BRANCH CHIEF)

1/12/81
(DATE)

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

NOV 17 1980

In Reply Refer To:
RII:GTG
50-250/80-30
50-251/80-30

IE FILE COPY

Florida Power and Light Company
ATTN: R. E. Uhrig, Vice President
P. O. Box 529100
Miami, FL 33152

Gentlemen:

This refers to the inspection conducted by G. T. Gibson of this office on September 25-26, 1980, of activities authorized by NRC Operating License Nos. DPR-31 and DPR-41 for the Turkey Point facility, and to the discussion of our findings held with H. Yeager by telephone on October 7 and 9, 1980.

Areas examined during the inspection and our findings are discussed in the enclosed inspection report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector.

Within the scope of this inspection, no items of noncompliance were disclosed.

In accordance with Section 2.790 of the NRC's "Rules of Practice", Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you (or your contractor) believe to be proprietary, it is necessary that you make a written application within 20 days to this office to withhold such information from public disclosure. Any such application must include a full statement of the reasons on the basis of which it is claimed that the information is proprietary, and should be prepared so that proprietary information identified in the application is contained in a separate part of the document. If we do not hear from you in this regard within the specified period, the report will be placed in the Public Document Room.

Should you have any questions concerning this letter, we will be glad to discuss them with you.

Sincerely,

for J. P. Stohr, Chief
Fuel Facility and Materials
Safety Branch

Enclosure: (See Page 2)

Enclosure:
Inspection Report Nos. 50-250/80-30
and 50-251/80-30

cc w/encl:
H. E. Yaeger, Plant Manager

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

Report Nos. 50-250/80-30 and 50-251/80-30

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

Facility Name: Turkey Point

License Nos. DPR-31 and DPR-41

Inspection at Turkey Point facility near Homestead, Florida

Inspector: G. T. Gibson — 11/4/80 Date Signed

Approved by: G. R. Jenkins, Section Chief, FF&MS Branch — 11/10/80 Date Signed

SUMMARY

Inspection on September 25-26, 1980

Areas Inspected

This routine, unannounced inspection involved 6 inspector-hours onsite and six inspector hours offsite in the areas of emergency planning drill observation and review of previously identified unresolved items.

Results

Of the two areas inspected, no items of noncompliance or deviations were identified.

DETAILS

1. Persons Contacted

Licensee Employees

Florida Power & Light

*H. Yaeger, Plant Manager
*J. Hays, Plant Superintendent, Nuclear
*D. Jones, QC Supervisor
*S. Feith, QA Supervisor
P. Hughes, Health Physics Supervisor
S. Kingsbury, Administator, Emergency Planning

Others

J. Buchanan, Florida Division of Disaster Preparedness
J. Eakins, Florida Division Health & Rehabilitative Services (DHRS)
A. Fischer, Dade County Civil Defense (DCCD)
W. Duggan, DCCD
M. Stein, Baptist Hospital

In addition to those individuals cited above, seven FP&L and 16 local, state and federal officials were contacted.

*Attended exit interview, by telephone, October 15, 1980

2. Exit Interview

The inspection scope and findings were reviewed on September 26, 1980 with selected licensee personnel. On October 15, 1980, to clarify items and actions relating to the unresolved item cited below, the inspector reviewed the inspection and summarized the finding with the licensee personnel indicated above.

3. Licensee Action on Previous Inspection Findings

(Closed) Unresolved Item (250, 251/79-30-02) Response to Licensee Identified Emergency Planning Audit Items. The inspector discussed the status of the remaining open items (IV, V, and VI) from the licensees QA audit QAO-PTP-79-08-252. Item IV, resolving inconsistencies between plant procedures and the emergency plan, were completed, reviewed, and approved October 14, 1980. Item VI, distribution of the emergency plan offsite as a controlled document, was completed by verification that all emergency plan copies to active participants was controlled, with "information copies" presented to other parties. Item V, training/retraining of offsite personnel, was completed October 14, 1980, with the exception of the Emergency Administrative Officer who the licensee committed to have retrained by December 1, 1980.

(Open) Unresolved Item (78-24-01) Unacceptable Items Observed during an Annual Emergency Exercise (RII Report Nos. 50-250, 251/78-24). The inspector reviewed these items with licensee management. The licensee has incorporated the portal monitor in the security building into the emergency evaluation to alert plant security of plume passage over the security building. Also, the licensee has incorporated into the duties of the Emergency Director responsibility for cognizance over the security personnel and their evacuation. Therefore, items 4.c(6) and 4.c(7) have been resolved. Items 4.b, 4.c.(2), (3), (4), (5), and (8) remain open.

4. Emergency Exercise September 25, 1980

a. The inspector observed the licensees medical portion of the annual emergency exercise. This consisted of: simulated accident (contaminated victim); first aid team response; health physics team response; transportation to hospital; and receipt of victim by hospital. The hospital utilized was the Baptist Hospital which is the backup hospital to Mt. Siani Hospital in the Turkey Point plan. However, the licensee has utilized the Baptist Hospital in the past because of its proximity to the facility. The medical portion of the exercise appeared satisfactory. The inspector noted the following areas which needed additional resolution:

(1) Baptist Hospital personnel expressed a desire for additional training on HP survey techniques. Although the Turkey Point plan specifies that a plant HP should accompany the injured victim to the hospital and perform necessary surveys, there are conceivable circumstances, although unlikely, when an HP would not be available.

(2) A wound counter was not available at the hospital for identification of imbeded particles in accident victims. Although major injuries would be transfered to Mt. Siani Hospital, a wound counter could be useful in various situations.

b. Licensee personnel, at the conclusion of the onsite inspection on September 26, stated that the two items noted above would be discussed with hospital administration officials, who were out of town during the drill. This item shall be considered an open item (250, 251/80-30-01) and shall be reviewed during a subsequent inspection.

5. Emergency Critique September 26, 1980

The inspector attended a critique, hosted by the State of Florida Division of Disaster Preparedness and the Dade County Civil Defense, relating to the evaluation of the annual exercise by the participating offsite agencies. Generally, the participants believed their respective agencies responded adequately to the drill scenario.

However, the State of Florida Division of Disaster Preparedness stated that the exercise scenario was not adequate to test the offsite agency accident evaluation and managenment functions. FP&L officials present stated the

next offsite exercise would be developed to assure more offsite effect and better test offsite agency support.

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

NOV 28 1980

In Reply Refer To:
RII:JJL
50-250/80-29
50-251/80-28

Florida Power and Light Company
ATTN: R. E. Uhrig, Vice President
P. O. Box 529100
Miami, FL 33152

Gentlemen:

This refers to the inspection conducted by J. J. Lenahan of this office on October 21-24, 1980 of activities authorized by NRC Operating License Nos. DPR-31 and DPR-41 for the Turkey Point facility, and to the discussion of our findings held with H. E. Yeager at the conclusion of the inspection.

Areas examined during the inspection and our findings are discussed in the enclosed inspection report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector.

Within the scope of this inspection, no items of noncompliance were disclosed.

One new unresolved item resulted from this inspection and is discussed in the enclosed report. This item will be examined during subsequent inspections.

In accordance with Section 2.790 of the NRC's "Rules of Practice", Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you (or your contractor) believe to be proprietary, it is necessary that you make a written application within 20 days to this office to withhold such information from public disclosure. Any such application must include a full statement of the reasons on the basis of which it is claimed that the information is proprietary, and should be prepared so that proprietary information identified in the application is contained in a separate part of the document. If we do not hear from you in this regard within the specified period, the report will be placed in the Public Document Room.

Should you have any questions concerning this letter, we will be glad to discuss them with you.

Sincerely,

J E Conlon

for C. E. Murphy, Chief
Reactor Construction & Engineering
Support Branch

Enclosure: (See Page 2)

NOV 2 8 1980

Enclosure: Inspection Report
Nos. 50-250/80-29 and 50-251/80-28

cc w/encl:
H. E. Yaeger, Plant Manager

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

NOV 28 1980

Report Nos. 50-250/80-29 and 50-251/80-28

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, Florida

Inspector: Virgil L. Brownlee for 11/17/80
J. J. Lenahan Date Signed

Approved by: Virgil L. Brownlee for 11/17/80
T. E. Conlon, Section Chief, RCES Branch Date Signed

SUMMARY

Inspection on October 21-24, 1980

Areas Inspected

This special, announced inspection involved 25 inspector-hours onsite in the areas of follow-up on IE Bulletin 80-11 and the containment building tendon surveillance inspection program.

Results

Of the two areas inspected, no items of noncompliance or deviations were identified.

DETAILS

1. Persons Contacted

Licensee Employees

*H. E. Yaeger, Site Manager
*E. F. Baker, QA Engineer
N. Legate, Construction Engineer
S. Brain, Engineering Project Manager (Telephone Conversation)
R. H. Reinhardt, QC Engineer
*J. K. Hays, Nuclear Plant Manager
*D. W. Jones, QC Supervisor

Other Organizations

G. P. Nutwell, Assistant Project Engineer, Bechtel
J. A. Ivany, Site Civil Group Supervisor, Bechtel
W. Lowery, Project QA Engineer, Bechtel
C. W. Andrews, Project Civil Group Supervisor, Bechtel
*W. Wilson, Project Quality Engineer, Bechtel

NRC Resident Inspector

*A. Ignatonis
*W. C. Marsh

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on October 24, 1980 with those persons indicated in Paragraph 1 above.

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 of may involve noncompliance or deviations. New unresolved items identified during this inspection are discussed in paragraph 6.

5. Independent Inspection Effort

The inspector examined grease cans covering the horizontal and dome tendons on Units 3 and 4 and the sides of the Units 3 and 4 containment buildings to determine if there was any leakage of tendon sheathing filler (grease) from the tendon voids. The inspector noted that grease appeared

to be leaking from some grease cans on the Unit 3 dome tendons and from vent holes in the feedwater penetration areas on Unit 4. The inspector also made a walk-through inspection of the Unit 4 tendon gallery. No leakage of grease was noted from the grease cans covering the bottom end of the Unit 4 vertical tendons.

The inspector discussed the apparent grease leakage from some Unit 3 dome tendons and from the vent holes in Unit 4 with licensee engineers. The licensee stated that an investigation was underway to determine the source of the grease in the feedwater penetration area on Unit 4. The apparent leakage from the Unit 3 dome grease cans will be investigated by the the licensee in the future, prior to the completion of the next Unit 3 3 tendon surveillance inspection. The results of these investigations will be reviewed by NRC in a subsequent inspection. This was identified to the licensee as Inspector followup Item 250/80-29-02 and 251/80-29-02 followup, "Investigation of grease leakage from containment building tendon voids." No deviations or items of noncompliance were identified.

6. Reactor Containment Building Post-Tensioning System Surveillance Inspection - Units 3 and 4

The inspector examined the one, three, and five year containment building tendon surveillance inspection reports for Units 3 and 4. These reports contained a summary of the results of the surveillance inspections, copies of the inspection data, and a copy of the surveillance procedure.

Review of the surveillance procedure attached to the one, three, and five year reports and review of the test results disclosed that the procedure may not meet the requirements of 10 CFR 50, Appendix B. The following shortcomings in the procedural requirements were noted by the inspector:

a. No inspector or acceptance criteria for use in inspection of buttonheads.

b. No requirements which address training and qualifications of inspectors and or craft personnel performing the tendon surveillance inspection. There were no records available at the site which documented the training of personnel involved in the surveillance inspections completed to date.

c. Requirements in the procedure which address the acceptance criteria and frequency of calibration requirements of test and measuring equipment are inadequate. For example, calibration of dial gages, feeler gages, and go no-go gages is not addressed in the procedure. Calibration of the hydraulic rams for use in measuring lift-off is required before the surveillance inspection, but not after to verify that the rams are still in calibration.

d. There are no requirements in the procedure which address the steps to be taken when unacceptable conditions (e.g., defective buttonheads, water in tendon sheaths, etc.) are found during the inspection to verify that the unacceptable condition is unique and not an indication of degradation of the post-tensioning system.

e. The method of measuring tendon lift-off changed somewhat in each subsequent surveillance inspection. This part of the procedure needs to be standardized if the amount of prestress loss since time of initial tensioning is to be determined.

There was insufficient time during this inspection to determine if the above requirements had been covered in tendon surveillance contractor's QC procedure. This was identified to the licensee as Unresolved Item 250/80-29-01 and 251/80-28-01, "Tendon Surveillance Procedure Acceptance Criteria". This item will be reviewed in detail by NRC in a subsequent inspection.

The inspector discussed previously identified Inspector Followup Item 250/80-27-01 with licensee and Bechtel engineers. These discussions disclosed that the apparent differences in recorded tendon stess values for the Unit 3 one year surveillance inspection were probably due to differences in the method used to measure tendon lift-off values. This will be evaluated by NRC in resolution of the unresolved item discussed above (see paragraph 6.e). Previously identified Inspector Followup Item 250/80-27-01 is closed.

No deviations or items of noncompliance were identified.

7. (Open) IE Bulletin 80-11, Masonry Will Design - Units 3 and 4

a. Summary of Licensee's Response to IE Bulletin 80-11.

Florida Power and Light submitted its 60-day IE Bulletin 80-11 response to NRC Region II for Turkey Point Units 3 and 4 in a letter dated July 24, 1980. This letter summarized the method used to identify masonry walls in the proximity of safety-related equipment and established a schedule for completing the design re-evaluation of the walls.

b. Review of Procedure for Accomplishment of IE Bulletin 80-11 Requirements

The inspector examined Bechtel procedure number 5177-133-C-001, "Survey Procedure for Concrete Masonry Walls". The procedure addresses the field walkdown method to be used in identification of masonry walls and safety related equipment, personnel training requirements, documentation requirements, and requirement for making, checking, and controlling as-built drawings of masonry walls in the proximity of safety-related equipment.

c. Field Walkdown in Safety-Related Areas to Identify Masonry Walls

The inspector, accompanied by Bechtel engineers, walked down the following areas to verify that all masonry walls in the proximity of safety-related equipment had been identified for design re-analysis in accordance with IEB 80-11 requirements and the licensee's 60-day response (letter of July 24, 1980);

(1) Diesel generator building
(2) Control building, floor elevations 30 and 42
(3) Auxiliary building, portions of floor elevations 4, 10, and 24
(4) Intake structure

No additional masonry walls were identified by the inspector during the walkdown. The field survey performed by Bechtel engineers appears to have been adequate to identify all masonry walls in the proximity of safety related equipment.

d. Review of Qualify Records Related to IE Bulletin 80-11

The inspector examined the following records relating to IEB 80-11:

(1) Floor plan drawings showing locations of masonry walls in the diesel generator, control and auxiliary buildings. These drawings are referenced in Attachment 10 to the Bechtel procedure.

(2) Documentation of training received by personnel performing the masonry wall inspections.

(3) FP&L QA Audit numbers QAE-EPP-80-7 and QAE-EPP-80-6. These audits cover IEB 80-11 field inspection activities.

(4) Masonry wall walkdown status logs

(5) Masonry wall inspection checklists and as built drawings for wall numbers A-10-4, A-18-1, A-18-2, A-18-5, A-18-13, C-30-2, C-30-3, C-30-6, C-30-9, C-30-18, and C-42-16. These records were reviewed by the inspector during the field walkdown (discussed in in paragraph 7.c) to verify the accuracy of the inspection documentation and as-built drawings. Inspection walkdown packages for wall numbers A-42-2, A-42-3, C-30-10, C-42-2, C-42-4 C-42-8 and C-42-13 were C-42-13 were reviewed in the office for completeness.

This bulletin remains open pending licensee completion of IE Bulletin 80-11.

No deviations or items of noncompliance were identified.

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

OCT 03 1980

In Reply Refer To:
RII:VLB
50-250/80-28
50-251/80-27
50-335/80-28
50-389/80-11

Florida Power and Light Company
ATTN: R. E. Uhrig, Vice President
Advanced Systems and Technology
P. O. Box 529100
Miami, FL 33152

Gentlemen:

This refers to the inspection conducted by V. L. Brownlee of this office on August 27-29, 1980, of activities authorized by NRC Operating License Nos. DPR-31, DPR-41, DPR-67 and Construction Permit No. CPPR-144 for the Turkey Point and St. Lucie facilities, and to the discussion of our findings held with Messrs. C. M. Wethy and B. J. Escue at the conclusion of the inspection.

Areas examined during the inspection and our findings are discussed in the enclosed inspection report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector.

Within the scope of this inspection, no items of noncompliance were disclosed.

We have examined actions you have taken with regard to previously identified enforcement matters. These are discussed in the enclosed inspection report.

In accordance with Section 2.790 of the NRC's "Rules of Practice", Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you (or your contractor) believe to be proprietary, it is necessary that you make a written application within 20 days to this office to withhold such information from public disclosure. Any such application must include a full statement of the reasons on the basis of which it is claimed that the information is proprietary, and should be prepared so that proprietary information identified in the application is contained in a separate part of the document. If we do not hear from you in this regard within the specified period, the report will be placed in the Public Document Room.

OCT 03 1980

Should you have any questions concerning this letter, we will be glad to discuss them with you.

Sincerely,

C. E. Murphy, Chief
Reactor Construction and Engineering
Support Branch

Enclosure:
Inspection Report Nos. 50-250/80-28,
50-251/80-27, 50-335/80-28 and 50-389/80-11

cc w/encl:
C. M. Wethy, Plant Manager
Nat Weems, Assistant QA
Construction Manager
H. E. Yaeger, Plant Manager

bcc w/encl:
NRC Resident Inspector

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

Report Nos. 50-250/80-28, 50-251/80-27, 50-335/80-28, and 50-389/80-11

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

Facility Name: Turkey Point Units 3 and 4 and St. Lucie Units 1 and 2

License Nos. DPR-31, DPR-41, DPR-67, and CPPR-144

Inspection at: Florida Power & Light Company's General Offices
Miami, Florida
Turkey Point Units 3 and 4 near Homestead, Florida
St. Lucie Units 1 and 2 near Fort Pierce, Florida

Inspector: Virgil L. Brownlee — 9/26/80
V. L. Brownlee — Date Signed

Approved by: T. E. Conlon — 10-3-80
T. E. Conlon, Section Chief, RC&ES Branch — Date Signed

SUMMARY

Dates of Inspection: August 27-29, 1980

Areas Inspected: This special, unannounced management inspection involved 19 inspector-hours at the General Offices and onsite in the area of followup of noncompliance relative to 10 CFR Part 21 procedures.

Results

Noncompliances 389/79-22-01, 250/79-35-01, 251/79-35-01, and 355/79-33-01, "10 CFR Part 21 procedures" are closed.

DETAILS

1. Persons Contacted

W. W. Woodward, QA Engineer, General Offices
R. F. Englemeier, Assistant QA Manager, General Offices
D. W. Jones, Site QC, Turkey Point
R. G. Garret, Security Officer, Turkey Point
R. Cook, QC Department, Turkey Point
J. C. Musser, Stores Supervisor, Turkey Point
M. Fowler, Area Stores Supervisor, Turkey Point
H. E. Yaeger, Plant Manager, Turkey Point
*C. M. Wethy, Plant Manager, St. Lucie 1
*B. J. Eacue, Plant Manager, St. Lucie 2
*N. T. Weems, Site QA Manager, St. Lucie 2
*E. W. Sherman, QA Engineer, St. Lucie 2
*A. Anderson, QA, St. Lucie 1

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on August 29, 1980 with those persons indicated in Paragraph 1 above.

3. Licensee Action on Previous Inspection Findings

(Closed) Infraction 250/79-35-01, 251/79-35-01, 335/79-33-01 and 389/79-22-01, "10 CFR Part 21 Procedures". The inspector reviewed FP&L's letters of response dated January 18, 1980, March 21, 1980, May 1, 1980 and July 30, 1980; reviewed the revised procedure as identified in the letters of response and held discussions with responsible General Office and site personnel regarding Part 21 evaluation and reporting requirements.

The previously identified items of noncompliance related to Part 21 controlling procedures and procedure implementation are adequately resolved, or, are in the final stages of resolution. The responsible personnel interviewed at the General Offices and sites were quite knowledgeable of Part 21 evaluation and reporting requirements.

That work remaining to be corrected at the sites is: 1) Completing the review of previously reported items relative to Part 21. This matter is punch listed and expected to be completed by October 31, 1980; 2) Finalize the training program for Part 21 implementation; and 3) More clearly define areas of responsibility for Part 21 reviewing in the site procedures and instructions. These matters were sufficiently completed and the inspector concurs with the FP&L proposed corrective actions. The inspector has no further questions regarding this matter.

4. Unresolved Items

Unresolved items were not identified during this inspection.

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

OCT 10 1980

In Reply Refer To:
RII:RMC
50-250/80-27
50-251/80-26

Florida Power and Light Company
ATTN: R. E. Uhrig, Vice President
P. O. Box 529100
Miami, FL 33152

Gentlemen:

This refers to the inspection conducted by R. M. Compton of this office on September 9-12, 1980, of activities authorized by NRC Operating License Nos. DPR-31 and DPR-41 for the Turkey Point facility, and to the discussion of our findings held with H. E. Yaeger at the conclusion of the inspection.

Areas examined during the inspection and our findings are discussed in the enclosed inspection report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector.

Within the scope of this inspection, no items of noncompliance were disclosed.

In accordance with Section 2.790 of the NRC's "Rules of Practice", Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you (or your contractor) believe to be proprietary, it is necessary that you make a written application within 20 days to this office to withhold such information from public disclosure. Any such application must include a full statement of the reasons on the basis of which it is claimed that the information is proprietary, and should be prepared so that proprietary information identified in the application is contained in a separate part of the document. If we do not hear from you in this regard within the specified period, the report will be placed in the Public Document Room.

Should you have any questions concerning this letter, we will be glad to discuss them with you.

Sincerely,

C. E. Murphy, Chief
Reactor Construction and Engineering
Support Branch

Enclosure: (See Page 2)

OCT 10 1980

Enclosure:
Inspection Report Nos. 50-250/80-27
and 50-251/80-26

cc w/encl:
H. E. Yaeger, Plant Manager

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

Report Nos. 50-250/80-27 and 50-251/80-26

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, Florida

Inspector: A R Herdt 10/7/80
R. M. Compton Date Signed

Approved by: A R Herdt 10/7/80
A. R. Herdt, Section Chief, RCES Branch Date Signed

SUMMARY

Inspection on September 9-12, 1980

Areas Inspected

This routine, announced inspection involved 24 inspector-hours onsite in the areas of IE Bulletin 79-14 "Seismic Analysis for As-Built Safety Related Piping Systems", containment prestressing system surveillance program and licensee action on previous inspection findings.

Results

No items of noncompliance or deviations were identified.

DETAILS

1. Persons Contacted

Licensee Employees

*H. E. Yaeger, Site Manager
*J. K. Hayes, Plant Manager - Nuclear
*H. D. Mantz, Project General Manager
*J. P.Mendieta, Maintenance Superintendent
*D. W. Jones, QC Supervisor
*T. Essinger, Assistant QA Manager - Operations
*E. F. Baker, QA Engineer
*R. A. Kaminsky, Licensing Engineer
N. Legate, Construction Engineer

Other Organizations

*G. P. Nutwell, Assistant Project Engineer, Bechtel Power Corporation

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on September 12, 1980 with those persons indicated in Paragraph 1 above.

3. Licensee Action on Previous Inspection Findings

(Open) Infraction 251/80-18-01; Failure to follow concrete expansion anchor inspection procedure. The inspector discussed FP&L's written responses to this item and the timeliness and scope of proposed programs for corrective action. A supplemented response from FP&L was received by RII on September 15, 1980. This item remains open pending examination of corrective action results. The licensee was asked to provide RIIwith a written status and schedule for the remaining work to be performed for IE Bulletin 79-02.

(Open) Unresolved Item 251/80-18-02; Ripout control. During an inspection during June 1980 the RII inspector noted that the mounting bolts had been removed from safety related pipe support H6 on MKS -762. The licensee issued a nonconformance report to determine the cause of the condition and provide for restoration. During this inspection NCR-1182-276 and Plant Work Order 2448 were examined. The hanger had apparently been disassembled by Power Resources (Operations) personnel during modification work on the Loop B pump seal leakoff line per Plant Change/Modification (PC/M) 80-70. The work covered by this PC/M was not completed at the time of the June inspection. However, the disassembly and/or restoration of this hanger was not addressed in the PC/M, the Plant Work Order or the Westinghouse work procedure. Further, a review of applicable administrative and maintenance procedures indicated that no specific instructions exist to document the

ripout and restoration of safety related supports/restraints. The licensee committed to evaluate and revise procedures as required in this matter. This item will remain open pending issuance of appropriate instructions.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. (Open) IE Bulletin 79-14, "Seismic Analysis for As-Built Safety-Related Piping Systems"

The inspector examined the method of handling "maintenance" items generated by the IEB 79-14 inspections. These "maintenance" items are required to restore pipe supports to their original design configuration and function, but do not affect the system or support stress analysis. This could include anything from loose nuts and bolts to missing welds and U-bolts. These items are forwarded by memorandum from Bechtel Gaithersburg to the site, where NCR's are generated to make the repair. The inspector examined the logs being used to track these items and reviewed approximately 20 related NCR's. Maintenance item number 90 for supports 4-ACH-198 and 4-ACH-200 was discussed with the Bechtel Plant Design Group Supervisor in Gaithersburg to determine how these particular discrepancies were being handled for analysis. The inspector had no further questions on this matter.

The status and schedule for completion of IEB 79-14 work were discussed. The licensee was informed that the scheduled October 1981 completion date for piping analysis and the December 1981 completion date for pipe support analysis were unacceptable and that an accelerated schedule with system priority considerations should be provided.

No deviations or items of noncompliance were identified.

6. Independent Inspection Effort

The Turkey Point containment prestressing system surveillance program was examined. The in-service tendon surveillance program is outlined in SAR section 5.1.7.4 and Technical Specification sections 4.4.6 and 4.4.7. The one, three and five year surveillance reports for both units were examined. Tendon stress, preservation, damage and corrosion inspection results and corrective actions appeared to be acceptable. The recorded tendon stress values for the Unit 3 one year surveillance were questioned as they were significantly lower (20 to 110 KIPS) than the three year lift off tensions. Although the one year stresses were above the minimum effective design stress and the three and five year inspections showed predictable actual stress values and losses, the increase in stress between the one and three year inspections is anomalous. The Bechtel surveillance reports make no mention of the relationship of these values. The licensee agreed to evaluate this question and inform the RII inspector of the results. This will be identified as Inspection Followup Item 250/80-27-01. Procedural improvements and the need for licensee QA/QC and engineering participation in and evaluation of this program were discussed at length with responsible personnel.

No deviations or items of noncompliance were identified.

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

In Reply Refer To:
RII:MBS
50-250/80-26
50-251/80-26

OCT 0 1 1980

Florida Power & Light Company
ATTN: R. E. Uhrig, Vice President
Advanced Systems & Technology
P. O. Box 529100
Miami, FL 33152

Gentlemen:

Thank you for your letter of August 28, 1980, informing us of steps you have taken to correct the items of noncompliance concerning activities under NRC Operating License Nos. DPR-31 and DPR-41 brought to your attention in our letter of August 1, 1980. We will examine your corrective actions and plans during subsequent inspections.

We appreciate your cooperation with us.

Sincerely,

R. C. Lewis

Richard C. Lewis, Acting Chief
Reactor Operations & Nuclear
Support Branch

cc: H. E. Yaeger, Plant Manager

USNRC REGION II
ATLANTA, GEORGIA

80 SEP 2 AM 11:34

FLORIDA POWER & LIGHT COMPANY

August 28, 1980
L-80-282

Mr. James P. O'Reilly, Director, Region II
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Dear Mr O'Reilly:

Re: RII: RVL
50-250/80-26
50-251/80-26

Florida Power & Light Company has reviewed the subject inspection report and a response is attached.

There is no proprietary information in the report.

Very truly yours,

Robert E. Uhrig
Vice President
Advanced Systems & Technology

REU/PLP/md

Attachment

cc: Harold F. Reis, Esquire

OFFICIAL COPY

PEOPLE . . . SERVING PEOPLE

ATTACHMENT

Re: RII: RVL
50-250/80-26
50-251/80-26

FINDING:

As required by 10 CFR 20 Paragraph 20.203f, each container of licensed material shall bear a durable, clearly visible label identifying the radioactive contents. It shall also provide sufficient information to permit individuals handling or using the containers, or working in the vicinity thereof to take precautions to avoid or minimize exposures.

Contrary to the above, a cart mounted shielded container storing radioactive filter material was found unattended and unlabeled in the gas analyzer area of the plant hot lab, away from its normal storage location in the plant's cold lab.

RESPONSE:

As corrective action, the radioactive filter material was disposed of in accordance with approved Health Physics procedures and the cart was returned to its prescribed storage location. In order to prevent recurrence, the cart has been labeled, "radioactive material" in order to bring to the attention of individuals working in the area of the cart that proper precautions must be taken to avoid or minimize exposures.

Full compliance was achieved on August 15, 1980.

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

AUG 0 1 1980

In Reply Refer To:
RII:RVL
50-250/80-26
50-251/80-26

Florida Power and Light Company
ATTN: R. E. Uhrig, Vice President
P. O. Box 529100
Miami, FL 33152

Gentlemen:

This refers to the inspection conducted by R. Vogt-Lowell of this office on June 1-30, 1980, of activities authorized by NRC Operating License Nos. DPR-31 and DPR-41 for the Turkey Point facility, and to the discussion of our findings held with J. K. Hays at the conclusion of the inspection.

Areas examined during the inspection and our findings are discussed in the enclosed inspection report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector.

One new unresolved item resulted from this inspection and is discussed in the enclosed report. This item will be examined during subsequent inspections.

During the inspection, it was found that certain activities under your license appear to be in noncompliance with NRC requirements. This item and references to pertinent requirements are listed in the Notice of Violation enclosed herewith as Appendix A. This notice is sent to you pursuant to the provisions of Section 2.201 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations. Section 2.201 requires you to submit to this office, within 20 days of your receipt of this notice, a written statement or explanation in reply including: (1) corrective steps which have been taken by you and the results achieved; (2) corrective steps which will be taken to avoid further noncompliance; and (3) the date when full compliance will be achieved.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you (or your contractor) believe to be proprietary, it is necessary that you make a written application within 20 days to this office to withhold such information from public disclosure. Any such application must include a full statement of the reasons on the basis of which it is claimed that the information is proprietary, and should be prepared so that proprietary information identified in the application is contained in a separate part of the document. If we do not hear from you in this regard within the specified period, the report will be placed in the Public Document Room.

Should you have any questions concerning this letter, we will be glad to discuss them with you.

Sincerely,

R. C. Lewis

R. C. Lewis, Acting Chief
Reactor Operations and Nuclear
Support Branch

Enclosures:
1. Appendix A, Notice of Violation
2. Inspection Report Nos. 50-250/80-26 and 50-251/80-26

cc w/encl:
H. E. Yaeger, Plant Manager

APPENDIX A

NOTICE OF VIOLATION

Florida Power and Light Company
Turkey Point 3 and 4

License Nos. DPR-31
DPR-41

Based on the NRC inspection June 1-30, 1980, certain of your activities were apparently not conducted in full compliance with NRC requirements as indicated below. These items have been categorized as described in correspondence to you dated December 31, 1974.

As required by 10 CFR 20 Paragraph 20.203f, each container of licensed material shall bear a durable, clearly visible label identifying the radioactive contents. It shall also provide sufficient information to permit individuals handling or using the containers, or working in the vicinity thereof to take precautions to avoid or minimize exposures.

Contrary to the above, a cart mounted shielded container storing radioactive filter material was found unattended and unlabeled in the gas analyzer area of the plant hot lab, away from its normal storage location in the plants cold lab.

This is a Deficiency.

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

Report Nos. 50-250/80-26 and 50-251/80-26

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

Facility Name: Turkey Point

License Nos. 50-250 and 50-251

Inspection at Turkey Point Site near Homestead, Florida

Inspector: D R Quick for 7-25-80
R. J. Vogt-Lowell Date Signed

Accompanying Personnel: R. J. Marsh

Approved by: D R Quick for 7-25-80
R. D. Martin, Section Chief, RONS Branch Date Signed

SUMMARY

Inspection on June 1-30, 1980

Areas Inspected

This routine announced inspection involved 128 inspector-hours onsite in the areas of followup on implementation of catefory "A" Short Term Lessons Learned, plant operations, surveillance test observation, and plant tours.

Results

Of the four areas inspected, no apparent items of noncompliance or deviations were identified in three areas; one apparent item of noncompliance was found in one area (Deficiency - improper storage of radioactive material - paragraph 8).

DETAILS

1. Persons Contacted

Licensee Employees

H. E. Yaeger, Site Manager
J. K. Hays, Plant Manager - Nuclear
J. E. Moore, Operations Superintendent - Nuclear
D. W. Haase, Technical Department Supervisor
V. B. Wager, Operations Supervisor
J. Wade, Chemistry Supervisor
P. W. Hughes, Health Physics Supervisor
G. G. Jones, Nuclear Plant Supervisor
L. C. Huenniger, Nuclear Plant Supervisor
V. A. Kaminskas, Reactor Engineering Supervisor
W. A. Klein, Licensing Engineer
J. P. Mendieta, Maintenance Superintendent
W. R. Williams, Assistant Superintendent Electrical Maintenance
J. Lawman, I & C Department Supervisor
L. Thomas, Assistant Superintendent Nuclear Maintenance - Primary
B. C. Kilpatrick, Assistant Superintendent Nuclear Maintenance - Secondary

Other Licensee employees contacted included operators, craftsmen, technicians, security personnel, QA personnel, and engineering personnel.

2. Management Interviews

An interview was conducted on June 27, 1980 with the Plant Manager-Nuclear. The inspector summarized the scope and findings of his inspection activities.

3. Licensee Action on Previsou Inspection Findings

Not inspected during this inspection report period.

4. Unresolved Items

No new unresolved items were identified during this inspection report period.

5. Followup on Implementation of Short Term Lessons Learned

On April 7, 1980 the Office of Nuclear Reactor Regulation (NRR) of the NRC issued an evaluation of the licensee's compliance with Category "A" items of NRC recommendations resulting from TMI-2 Lessons Learned. This NRR evaluation disclosed that the licensee had satisfied all Category "A" requirements. Certain items, such as the adequacy of procedures are being followed up by the Office of Inspection and Enforcement (IE). The following provides an itemized update on the IE follow-up of the Category "A" requirements:

2.1.3.a - Direct Indication of PORV and Safety Valves for PWRs'

The inspector reviewed procedures 1208.1, "Pressurizer - Manufunction of Power Operated Relief and Safety Valves" and 0208.3, "Annunciator List- Panel A-Reactor Coolant" and verified that backup methods for determining valve positions were incorporated in the procedures. The power supply for the PORV direct indication device is 125 VDC, installed under plant change/modification (PC/M) 80-11 and 80-12 for units 3 and 4 respectively.

2.1.3.b - Instrumentation for Inadequate Core Cooling

Modifications have been made to the plant computer to provide the following:

a. Display in the control room of core exit temperature using sixteen (16) core exit thermocouples as inputs.

b. A display in the control room of core temperature margin to saturation using eight core exit thermocouples (2 per quadrant) and two indications of reactor coolant system pressure or inputs. The circuit auctioneers the highest temperature and lowest pressure combination for the margin to saturation calculation.

A specific plant procedure for the calculation of subcooling using steam tables is not available. The licensee has posted a copy of the saturation curve adjacent to the reactor coolant system temperature and pressure recorders in the control room for both units 3 and 4.

2.1.4 - Containment Isolation

Via a review of E.P. 20,000 "Immediate Actions and Diagnostics", the inspector confirmed that the procedure had been revised to require closing or verifying closed the PRT Gas Analyzer line manual valve *-552 and the Excess Letdown/Reactor Coolant Pump Seal Water Return isolation valve MOV-*-381 whenever the containment HI-HI pressure setpoint is reached. A reference to identifying a dedicated person to attend to the closing of normally closed manual isolation valves which had for any reason been opened on penetrations P5 and P25 has not been incorporated in any procedure.

2.1.8.a - Improved Post Accident Sampling Capability

The inspector examined the installed modifications to the sampling system which were described in the licensee's March 28, 1980 submittal.

The new sample lines are not a permanently installed part of the normal sample system, but are activated by quick disconnect couplings to the existing sampling system. Nuclear chemistry procedures NC-6 and NC-53 detail the use of the post accident sampling modifications.

2.2.1.a - Shift Supervisor Responsibility

The inspector reviewed A.P. 103.2, "Duties and Responsibilities of Operators on Shift and Maintenance of Operating Logs and Records" (dated 1/22/80) and verified that the following changes had been incorporated:

a. The Nuclear Plant Supervisor (NPS), if absent from the control room, should return to and remain in the control room any time the plant is in an unstable or accident condition until the plant is in a safe and stable condition.

b. The NPS has full authority and responsibility to perform shift management and command functions during normal operation, transient conditions, off-normal operating conditions and emergency operating conditions. This includes maintenance of a professional atmosphere appropriate to activities in progress in the control room as to number, location, conduct, and or presence of personnel relevant to needs.

c. The Nuclear Control Center Operator shall report all significant plant changes, unsafe trends or unsafe conditions to the Nuclear Watch Engineer or Nuclear Plant Supervisor immediately. In an emergency or unavailability of the Nuclear Plant Supervisor and Nuclear Watch Engineer, he has the authority and, when warranted, the responsibility to shutdown one or both units or take any other action necessary to ensure the unit(s) are in a safe condition.

2.2.2.a - Control Room Access

Step 5.1.3 of A.P. 103.2, as revised on 1/11/80, indicates that the Nuclear Plant Supervisor has full authority and responsibility to perform shift management and command functions during normal operating conditions and emergency operating conditions. This includes maintenance of a professional atmosphere appropriate to activities in progress in the control room as to number, location, conduct, and or presence of personnel relevant to needs.

6. Plant Operations

The inspector informed himself on a daily basis of the overall plant status and any significant safety matters related to plant operations. Discussions were regularly held with plant management and various members of the operations staff. Selected portions of daily operating logs and operating data sheets were reviewed at least weekly during the report period.

The inspector conducted various plant tours and made frequent visits to the Control Room. Observations included witnessing of work activities in progress, status of operating and standby safety systems, confirmation of valve positions, instrument readings and recordings, annunciator alarms, housekeeping, radiation area controls and vital area controls.

Informal discussions were held with operators and other personnel on work activities in progress and the status of safety-related equipment or systems. The inspector's questions were satisfactorily answered.

No items of noncompliance were identified within the areas inspected.

7. Surveillance Test Observation

Portions of surveillance test activities wer witnessed by the inspector to verify:

a. Testing is scheduled in accordance with technical specification requirements.

b. Procedures are being followed.

c. Testing is performed by qualified personnel.

d. Limiting conditions of operation are being met.

e. System restoration is correctly accomplished following testing.

Those portions witnessed were the RHR pump surveillance test conducted on June 6, 1980 in accordance with O.P. 3204.1, "Residence Heat Removal System - Periodic Test". The inspector had concerns in the following two areas:

1. Step 8.5.9 of O.P 3204.1 requires the establishment of communications between the control room and the personnel conducting the surveillance at the pump. The way this is interpreted by the surveillance personnel is that they contact the control room via a plant telephone from the 18 foot elevation of the auxiliary building and then proceed to the 10 foot elevation just above the pump and wait for it to start. At this point they proceed down to the pump itself on the 4 foot elevation. No communications facilities exist in the RHR pump room itself.

2. Paragraph 4.5.2 of the Technical Specifications in addition to O.P. 3204.1 require an observed 15 minute pump run to verify that the pump will operate without excessive vibration, heating or leakage. The plant practice is to observe the pump long enough after the initial start to do a visual inspection and take vibration measurements and then proceed to the 10 foot elevation to record pump suction and discharge pressures. This would take approximately 3-4 minutes after which time they would then wait for the Nuclear Control Center operators to secure the pump once the 15 minutes run time had occurred.

Following discussions of the above concerns with the Plant Operations Superintendent, a commitment was made to clarify the language in the procedure to insure that the pump is at least spot checked (after the

initial visual inspection and vibration measurements) at the end of the 15 minute run for conformance with pump performance acceptance criteria delineated in the procedure. The revised procedure will be issued by July 15, 1980 as indicated by the Plant Operations Superintendent.

The licensee also agreed to evaluate the need for continuous two-way communications versus the present practices discussed above. This area will be treated as an open item for inspector-followup during a subsequent inspection (50-250/251/80-26-02).

8. Plant Tours

During a tour of the Auxiliary Building to examine sampling system modifications, the inspector visited the plant "Hot Lab" with a licensee nuclear chemist in order to see a "cart mounted shield" referenced in a March 28, 1980 submittal on Short Term Lessons Learned Category A item 2.1.8.a. This cart mounted shield, designed by the licensee, would be used to transport the sample from the sample station to the laboratory for analysis. Although the prescribed storage location for this cart is the Cold Lab, the Chemistry Supervisor had chosen to use the cart as a temporary shielded storage for radioactive filter material from the reactor coolant pump seal water injection line and had thus moved the cart to the Gas Analyzer area of the Hot Lab. This particular fact, unknown to the plant nuclear chemist accompanying the inspector at the time, in addition to the lack of any sign on the cart itself alerting personnel to the contents of the cart, allowed the plant nuclear chemist to roll the cart out of the gas analyzer area into the hot lab, without any objection from the other personnel present in the Hot Lab, and to expose the radioactive filter in the shield while attempting to show the inspector the details of the cart. Upon noticing that the shielded well was not empty the nuclear chemist rapidly replaced a lead brick which had been covering the well opening.

The lack of any labeling on the cart mounted shield appears to be contrary to 10 CFR 20 paragraph 20.203f and as such is an item of noncompliance (50/250/251/80-26-01).

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

JUN 26 1980

In Reply Refer To:
RII:DJP
50-250/80-22
50-251/80-22

Florida Power and Light Company
ATTN: R. E. Uhrig, Vice President
P. O. Box 529100
Miami, FL 33152

Gentlemen:

This refers to the inspection conducted by D. J. Perrotti of this office on June 11 through 13, 1980 of activities authorized by NRC Operating License Nos. DPR-31 and DPR-41 for the Turkey Point facility, and to the discussion of our findings held with J. Hays at the conclusion of the inspection.

Areas examined during the inspection and our findings are discussed in the enclosed inspection report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector.

Within the scope of this inspection, no items of noncompliance were disclosed.

We have examined actions you have taken with regard to previously reported unresolved items. The status of these items is discussed in the enclosed report.

In accordance with Section 2.790 of the NRC's "Rules of Practice", Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you (or your contractor) believe to be proprietary, it is necessary that you make a written application within 20 days to this office to withhold such information from public disclosure. Any such application must include a full statement of the reasons on the basis of which it is claimed that the information is proprietary, and should be prepared so that proprietary information identified in the application is contained in a separate part of the document. If we do not hear from you in this regard within the specified period, the report will be placed in the Public Document Room.

Should you have any questions concerning this letter, we will be glad to discuss them with you.

Sincerely,

J. Philip Stohr, Chief
Fuel Facility and Materials
Safety Branch

Enclosure:
See Page 2

JUN 26 1980

Enclosure:
Inspection Report Nos. 50-250/80-22
and 50-251/80-22

cc w/encl:
H. E. Yaeger, Plant Manager

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

Report Nos. 50-250/80-22 and 50-251/80-22

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

Facility Name: Turkey Point Units 3 and 4

Docket Nos. 50-250 and 50-251

License No. DPR-31 and DPR-41

Inspection at Turkey Point Site, Homestead Florida

Inspector: G. R. Jenkins for D. J. Perrotti — 6/26/80 Date Signed

Approved by: G. R. Jenkins, Section Chief, FFMS Branch — 6/26/80 Date Signed

SUMMARY

Inspection on June 11-13, 1980

Areas Inspected

This routine, unannounced inspection involved 11 inspector-hours on site in the areas of follow-up on IE Bulletins, and follow-up on previous inspection findings.

Results

Of the two areas inspected, no items of noncompliance or deviations were identified.

DETAILS

1. Persons Contacted

Licensee Employees

*J. Hays, Nuclear Plant Manager
*J. Moore, Nuclear Operations Supervisor
*S. Feith, Quality Assurance Supervisor
*S. Peck, Health Physics
*E. Suarez, Technical Department Engineer
*D. Jones, Quality Control Supervisor

NRC Resident Inspector

*R. Vogt-Lowell
*W. Marsh

2. Exit Interview

The inspection scope and findings were summarized with those persons indicated in Paragraph 1 above. With regard to IEB 79-18 follow-up discussed in Paragraph 5, the licensee agreed to implement interim safety measures for the five areas identified by August 1, 1980.

3. Licensee Action on Previous Inspection Findings

(Closed) Unresolved Item (79-30-01) Licensee to Develop a Procedure for Determining Source Term Releases from Unit 3 Spent Fuel Pool Vent Monitor. The licensee has completed a revision to Emergency Procedure 20103 which incorporates the source term calculations for unit 3 spent fuel building releases.

(Open) Unresolved Item (79-30-02) Corrective Action on QA Audit Identified Deficiencies. Memo from QA Operations, dated June 10, 1980, which was a semi annual review of the status on QA Audit QAO-PTP-79-08-252, states that findings I, IV, V, and VI of the audit are still unresolved. The findings, which pertain to revisions of the emergency plan, will be re-evaluated when the new Emergency Plan is approved by NRC. At the exit interview the inspector acknowledged the position stated by the QA memo and remarked that these unresolved findings will be followed during subsequent inspections. The inspector pointed out that any changes to the plan that would be necessary to maintain the effectiveness of the plan and the level of emergency preparedness should be effected right away and should not be contingent upon submission of the plan to the NRC and the subsequent review and approval process. The licensee acknowledged the inspector's comments and remarked that those types of changes would be handled on a case-by-case basis in a timely manner.

The inspector verified, though discussions with licensee representative and review of fire team rosters and QA Audit summary, that the finding of Audit No. QAO-PTP-79-08-50, with regard to second quarter training and fire-team rosters, had been corrected.

4. Follow up on IE Bulletin

The inspector reviewed the licensee's response to IE Bulletin 79-18, Audibility Problems Encountered on Evacuation of Personnel from High Noise Areas, and corrective actions taken and planned were discussed with licensee representatives. The inspector reviewed the noise surveys of Units 3 and 4 and the Plant Change/Modification (PC/M) 79-26 to the communication system, which consisted of volume control for the page system. A re-survey was performed following the completion of PC/M 79-26, and five areas in the plant were identified as hearing problem areas. Another modification was established to provide flasher lights in these five areas, 1) Units 3 and 4 feed pump rooms, 2) condenser pump pit areas, 3) reheater drain tank area, 4) Units 1 and 2 boiler feed pump rooms, and 5) the forced draft fan rooms. At the exit interview the inspector commented that the noise surveys did not identify the emergency diesel generator rooms as a noise problem area and requested the licensee to re-evaluate this area. The inspector asked about the scheduled date for installation of the flasher lights. The inspector was informed that the lights were on order but the delivery date was not available. The licensee agreed to check on the delivery date. Access control to these five areas was also discussed. It was pointed out that these particular rooms were not normally occupied, and that foremen and supervisors would be aware of work crews in the rooms. However, access to the rooms is not controlled. The inspector asked about an interim administrative procedure in order to clear these rooms, until such time as the flasher lights are installed and tested. The inspector was informed that a procedure would be established or incorporated into existing procedures and would be implemented prior to August 1, 1980. The inspector stated that IEB 79-18 would remain open to be reviewed during subsequent inspections.

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

SEP 3 0 1980

In Reply Refer To:
RII:MBS
50-250/80-21
50-251/80-21

Florida Power & Light Company
ATTN: R. E. Uhrig, Vice President
Advanced Systems & Technology
P. O. Box 529100
Miami, FL 33152

Gentlemen:

Thank you for your letter of July 29, 1980, informing us of steps you have taken to correct the items of noncompliance concerning activities under NRC Operating License Nos. DPR-31, and DPR-41 brought to your attention in our letter of June 30, 1980. We will examine your corrective actions and plans during subsequent inspections.

We appreciate your cooperation with us.

Sincerely,

Richard C. Lewis, Acting Chief
Reactor Operations & Nuclear
Support Branch

cc: H. E. Yaeger, Plant Manager

P.O. BOX 529100, MIAMI, FL 33152

FLORIDA POWER & LIGHT COMPANY

July 29, 1980
L-80-243

Mr. James P. O'Reilly, Director, Region II
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

Re: RII:RVL
50-250/80-21
50-251/80-21

Florida Power & Light Company has reviewed the subject inspection report and a response is attached.

There is no proprietary information in the report.

Very truly yours,

Robert E. Uhrig

Robert E. Uhrig
Vice President
Advanced Systems & Technology

REU/MAS/cph

Attachment

cc: Harold F. Reis, Esquire

ATTACHMENT

Re: RII:RVL
50-250/80-21
50-251/80-21

Finding A

As required by Section 6.8.1 of the Technical Specifications, written procedures and administrative policies that meet or exceed the requirements and recommendations of Section 5.1 and 5.3 of ANSI N18.7-1972 and Appendix A of USNRC Regulatory Guide 1.33 shall be implemented.

Contrary to the above, the following three examples represent a failure to implement existing procedures:

(1) Main Steam Check Valve steam anti-rotation devices mislaid on the Unit 3 steam platform were not identified in QC steam platform housekeeping Inspection Reports dated October 25, 1979, March 28, 1980 and April 22, 1980 as required by procedure AP 0103.11, "Housekeeping".

(2) The Supervisor on shift at the conclusion of the October 1979 maintenance of the Unit 3 Main Steam Check Valves (MSCV) failed to verify the proper dispositioning of the MSCV steam anti rotation devices remaining on the steam platform at the conclusion of the maintenance activity as required by AP 0103.11.

(3) QC housekeeping inspection reports dated May 30, 1979, and October 25, 1979, were not documented on QC Inspection Report Form 5416 as required by AP 0103.11.

Response A

With respect to the first example, housekeeping inspections conducted in accordance with Administrative Procedure 0103.11 are concerned with cleanliness, personnel safety, and fire prevention and protection (including disposal of combustible materials and debris). The procedure does not require QC inspectors to identify specific equipment or parts associated with work completed or in progress, or to identify other parts which may be located in the area. During the housekeeping inspections that were conducted in the area under consideration, the concern of the inspector was as set forth in Administrative Procedure 0103.11, i.e., for cleanliness, fire protection and prevention, and personnel safety. In response to the finding, QC inspectors will be instructed by copy of this letter to bring items that need further investigation to the attention of the responsible work area or work activity supervisor.

Full compliance will be achieved by August 15, 1980.

With respect to the second example, the anti-rotation devices were reinstalled on the check valve. Our investigation was unable to determine with certainty why the anti-rotation devices had not been reinstalled. To prevent recurrence, each supervisor in the Mechanical Maintenance Department will be instructed to supervise field work for which he is responsible to the extent that he can insure that the work is completed in the correct manner and the work area is restored to a satisfactory state as set forth in Administrative Procedure 0103.11.

Full compliance will be achieved by August 30, 1980.

With respect to the third example, a new QC inspector check off list was developed to be used in lieu of QC Inspection Report 5416. A procedural change has been made to Administrative Procedure 0103.11 to allow, at the discretion of the inspector, the use of either inspection report form to document housekeeping inspection results. This change had been made and reviewed by the Plant Nuclear Safety Committee prior to the exit interview.

Full compliance was achieved on June 6, 1980.

Finding B

As required by Technical Specification 6.8.1, written procedures shall be established, implemented and maintained that meet or exceed the requirements and recommendations of Section 5.1 and 5.3 of ANSI N18.7-1972.

Contrary to the above, Maintenance Procedure 1507.8, "MSIV and MSCV Disassembly Repair and Reassembly" (dated 4/3/80) does not meet the requirements and recommendations of: (1) paragraph 5.3.5.2 of Section 5.3 of ANSI N18.7-1972 requiring procedures to contain enough detail to permit the maintenance work to be performed safely and expeditiously in that it contains no detail on the disassembly/reassembly of the MSCV operators; (2) paragraph 5.3.5.3 of Section 5.3 of ANSI N18.7-1972 requiring procedures to include, or reference, instructions for returning the equipment to its normal operating status in that such instructions are unavailable for the post maintenance check out of the MSCV's.

Response B

As corrective action, Maintenance Procedure 1507.8 is being split into two distinct procedures, one on the MSIV's and the other on the MSCV's. The new MSCV procedure, which is now in the process of being written, will detail the MSCV disassembly, repair, and reassembly and will include the removal and reinstallation of the MSCV operators.

Full compliance will be achieved by August 31, 1980.

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

JUN 30 1980

In Reply Refer To:
RII:RVL
50-250/80-21
50-251/80-21

Florida Power and Light Company
ATTN: R. E. Uhrig, Vice President
P. O. Box 529100
Miami, FL 33152

Gentlemen:

This refers to the inspection conducted by R. Vogt-Lowell of this office on May 1 through 31, 1980 of activities authorized by NRC Operating License Nos. DPR-31 and DPR-41 for the Turkey Point facility, and to the discussion of our findings held with J. K. Hays at the conclusion of the inspection.

Areas examined during the inspection and our findings are discussed in the enclosed inspection report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector.

During the inspection, it was found that certain activities under your license appear to be in noncompliance with NRC requirements. These items and references to pertinent requirements are listed in the Notice of Violation enclosed herewith as Appendix A. This notice is sent to you pursuant to the provisions of Section 2.201 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations. Section 2.201 requires you to submit to this office, within 20 days of your receipt of this notice, a written statement or explanation in reply including: (1) corrective steps which have been taken by you and the results achieved; (2) corrective steps which will be taken to avoid further noncompliance; and (3) the date when full compliance will be achieved.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you (or your contractor) believe to be proprietary, it is necessary that you make a written application within 20 days to this office to withhold such information from public disclosure. Any such application must include a full statement of the reasons on the basis of which it is claimed that the information is proprietary, and should be prepared so that proprietary information identified in the application is contained in a separate part of the document. If we do not hear from you in this regard within the specified period, the report will be placed in the Public Document Room.

JUN 3 0 1980

Should you have any questions concerning this letter, we will be glad to discuss them with you.

Sincerely,

R. C. Lewis

R. C. Lewis, Acting Chief
Reactor Operations and Nuclear
Support Branch

Enclosures:
1. Appendix A, Notice of Violation
2. Inspection Report Nos. 50-250/80-21 and 50-251/80-21

cc w/encl:
H. E. Yaeger, Plant Manager

APPENDIX A

NOTICE OF VIOLATION

Florida Power and Light Company
Turkey Point Units 3 and 4

License Nos. DPR-31
& DPR-41

Based on the NRC inspection May 1-31, 1980, certain of your activities were apparently not conducted in full compliance with NRC requirements as indicated below. These items have been categorized as described in correspondence to you dated December 31, 1974.

A. As required by Section 6.8.1 of the Technical Specifications, written procedures and administrative policies that meet or exceed the requirements and recommendations of Sections 5.1 and 5.3 of ANSI N18.7-1972 and Appendix A of USNRC Regulatory Guide 1.33 shall be implemented.

Contrary to the above, the following three examples represent a failure to implement existing procedures:

(1) Main Steam Check Valve steam anti-rotation devices mislaid on the unit 3 steam platform were not identified in QC steam platform housekeeping Inspection Reports dated October 25, 1979, March 28, 1980 and April 22, 1980 as required by procedure A.P.103.11, "Housekeeping".

(2) The Supervisor on shift at the conclusion of the October 1979 maintenance of the Unit 3 Main Steam Check Valves (MSCV) failed to verify the proper dispositioning of the MSCV steam anti-rotation devices remaining on the steam platform at the conclusion of the maintenance activity as required by A.P.103.11.

(3) QC housekeeping inspection reports dated May 30, 1979, and October 25, 1979 were not documented on QC Inspection Report Form 5416 as required by A.P.103.11.

This is an infraction (applies only to Unit 3).

B. As required by Technical Specification 6.8.1, written procedures shall be established, implemented and maintained that meet or exceed the requirements and recommendations of Section 5.1 and 5.3 of ANSI N18.7-1972.

Contrary to the above, Maintenance Procedure 1507.8, "MSIV and MSCV Disassembly Repair and Reassembly" (dated 4-3-80) does not meet the requirements and recommendations of: (1) paragraph 5.3.5.2 of Section 5.3 of ANSI N18.7-1972 requiring procedures to contain enough detail to permit the maintenance work to be performed safely and expeditiously in that it contains no detail on the disassembly/reassembly of the MSCV operators; (2) paragraph 5.3.5.3 of Section 5.3 of ANSI N18.7-1972 requiring procedures to include, or reference, instructions for returning the equipment to its normal operating status in that such instructions are unavailable for the post maintenance check out of the MSCV's.

This is an infraction.

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

Report Nos. 50-250/80-21 and 50-281/80-21

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

Facility: Turkey Point

Docket Nos. 50-250 and 50-251

License Nos. DPR-31 and DPR-41

Inspection at Turkey Point Site near Homestead, Florida

Inspector: R. J. Vogt-Lowell — Date Signed: 6/24/80

Accompanied by: W. Marsh

Approved by: R. D. Martin, Section Chief, RONS Branch — Date Signed: 6/24/80

SUMMARY

Inspection on May 1-31, 1980

Areas Inspected

This routine inspection involved 120 inspector hours onsite in the areas of plant operations, maintenance procedures, licensee event report followup, plant tours and surveillance of safety-related systems and components.

Results

Of the 5 areas inspected, no apparent items of noncompliance or deviations were identified in 3 areas; two apparent items of noncompliance were found in 2 areas (Infraction - failure to follow procedure - paragraph 5; Infraction - inadequate maintenance procedure - paragraph 6).

DETAILS

1. Persons Contacted

Licensee Employees

H. E. Yaeger, Site Manager
J. K. Hays, Plant Manager-Nuclear
J. E. Moore, Operations Superintendent-Nuclear
D. W. Haase, Technical Department Supervisor
K. E. Beatty, Training Supervisor
V. B. Wager, Operations Supervisor
J. Wade, Chemistry Supervisor
P. W. Hughes, Health Physics Supervisor
G. G. Jones, Nuclear Plant Supervisor
T. A. Finn, Nuclear Plant Supervisor
L. C. Huenniger, Nuclear Plant Supervisor
V. A. Kaminskas, Reactor Engineering Supervisor
W. A. Klein, Licensing Engineer
J. Bates, Health Physics Operations Supervisor
P. J. White, Maintenance Superintendent
W. R. Williams, Assistant Superintendent Electrical Maintenance
J. P. Medieta, I&C Department Supervisor
L. Thomas, Assistant Superintendent Nuclear Maintenance-Primary
B. C. Kilpatrick, Assistant Superintendent Nuclear Maintenance Secondary
R. L. Longtemps, Maintenance Supervisor

Other licensee employees contacted included operators, craftsmen, technicians, security personnel, QA personnel, and engineering personnel.

2. Management Interviews

Management interviews were conducted on May 16, 1980 and May 30, 1980 with the Plant Manager-Nuclear and selected members of his staff. The inspector summarized the scope and findings of his inspection activities. The items of noncompliance discussed in this report were presented to the licensee during the May 30, 1980 meeting.

3. Licensee Action on Previous Inspection Findings

Not inspected during this inspection report period.

4. Unresolved Items

No new unresolved items were identified during this inspection report period.

5. Plant Operations

The inspector kept informed on a daily basis of the overall plant status and any significant safety matters related to plant operations. Discussions were held with plant management and various members of the operations staff on a regular basis. Selected portions of daily operating logs and operating data sheets were reviewed on at least a weekly basis during the report period.

The inspector conducted various plant tours and made frequent visits to the control room. Observations included witnessing work activities in progress, status of operating and standby safety systems, confirming valve positions, instrument readings and recordings, annunciator alarms, housekeeping, radiation area controls, and vital area controls.

Informal discussions were held with operators and other personnel on work activities in progress and status of safety-related equipment or systems. During a tour of the Unit 3 steam platform conducted the week of May 26, 1980, the inspector noted several items whose origin was not readily identifiable. A followup with the maintenance department disclosed these items to be anti-rotation devices which had been removed from the main steam check valve (MSCV) operators at some prior undetermined time. They subsequently had not been reinstalled. The last maintenance on these valves had been done in October, 1979. The devices were reinstalled shortly after the inspector brought it to the attention of the licensee.

This occurrence identifies certain discrepancies resulting in items of noncompliance with regulatory requirements. The information that follows further describes these items.

Plant Administrative procedure AP 103.11, "Housekeeping" requires QC inspectors to periodically perform housekeeping surveillance of the steam platforms for both units. Housekeeping is defined in the procedure as: "Housekeeping - the control of work activities, conditions and environments that affect the overall cleanliness of the facility, and material and equipment located in or near nuclear safety related areas." This procedure was not followed in that the MSCV steam anti-rotation devices found by the NRC inspector on the unit 3 steam platform were not identified in QC steam platform houskeeping inspection reports dated 10/25/79, 3/28/80 and 4/22/80.

A.P. 103.11 further requires a supervisor or foreman to verify that subsequent to the performing of a maintenance job under their congnizance that the area is clean and that tools and equipment have been returned to their proper storage location or removed from the area. In that no maintenance on the unit 3 MSCV's has been done since October, 1979, it can be concluded that the supervisor on that job failed to verify the proper dispositioning of the MSCV steam anti-rotation devices remaining on the steam platform subsequent to the termination of the maintenance. This is contrary to the requirements of the procedure.

In addition, AP 103.11 requires a QC inspection report form 5416 to be completed for QC housekeeping surveillances and a retention of these forms in accordance with the requirements for Quality Assurance Records. Form 5416 was not completed for QC housekeeping inspection reports dated 5-30-79 and 10-25-79.

The above paragraphs represent three examples of a failure to follow the requirements of A. P. 103.11 and as such constitute an item of noncompliance (50-250/80-21-01).

6. Maintenance Procedure

Maintenance procedure MP 1507.8 was found to be inadequate due to the following:

a. Paragraph 5.3.5.2 of ANSI N18.1972 requires maintenance procedures to containenough detail to permit the work to be performed safely and expeditiously. Contrary to this, MP 1507.8 contains no detail on the disassembly/reassembly of the MSCV operator. This raises the possibility of the unnecessary removal of the MSCV steam anti-rotation devices (discussed in paragraph 5 of this report) during the last maintenance performed on these valves.

b. Paragraph 5.3.5.3 of ANSI N18.7-1972, "Post Maintenance Check Out and Return to Service" requires a maintenance procedure to include, or reference, instructions for returning the equipment to its normal operating status. These instructions for post maintenance check out of the MSCV's in MP 1507.8, are unavailable thereby contributing to the failure to discover that the MSCV steam anti-rotation devices had not been reinstalled following the October, 1979 maintenance of the valves.

In that MP 1507.8 does not meet the above cited requirements of ANSI N18.7-1972, this is an item of noncompliance (50-250/80-21-02), (50-251/80-21-02).

7. Licensee Event Report Followup

The following events were reviewed to ascertain that:

a. reporting requirements were met;

b. corrective action was taken as required by Appendix B to 10 CFR Part 50;

c. the event was reviewed and evaluated; and

d. The facility was operated within the requirements of 10 CFR 50.59 and the Technical Specifications subsequent to the event.

50-250/80-01	Fire Water Pump Inoperability
50-250/80-04	"A" Emergency Diesel Generator
50-251/80-07	4A Main Steam Check Valve

No items of noncompliance or deviations were identified within the areas inspected.

8. Plant Tours

During a tour of the Unit 4 containment, the inspector noted that a portion of metal lagging on the 4B steam generator was not in place. The location of the missing lagging was in the area of transition between the upper and the lower shell. The inspector informed the plant manager of his findings. The plant manager took the necessary steps to generate a work order request for reinstallation of the lagging. The licensee presently intends to install the lagging prior to the conclusion of the current "steam generator inspection/turbine rotor replacement" outage. This will be carried as an inspector followup item (50-251/80-21-01).

9. Surveillance of Safety Related Systems and Components

The inspector verified that properly approved procedures for a sample of Technical Specification surveillance tests relating to each of the following systems were available:

a. Reactivity control and power distribution

b. Instrumentation

c. Reactor Coolant System

d. Emergency Core Cooling System

e. Containment Systems

f. Plant and Electrical Power Systems

g. Fire Protection/Prevention Systems

The availability of approved procedures for surveillance testing of pumps and valves identified in the licensee's inservice inspection program was also ascertained. The procedures were reviewed for proper format and technical content.

Portions of various surveillance tests were witnessed by the inspector and a sampling of completed tests were reviewed to ascertain conformance with applicable requirements.

No items of noncompliance or deviations were identified within the areas inspected.

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

AUG - 8 1980

In Reply Refer To:
RII:NE
50-250/80-20
50-251/80-17

Florida Power and Light Company
ATTN: R. E. Uhrig, Vice President
P. O. Box 529100
Miami, FL 33152

Gentlemen:

Thank you for your letter of August 4, 1980, informing us of steps you have taken to correct the item of noncompliance concerning activities under NRC Operating License Nos. DPR-31 and DPR-41 brought to your attention in our letter of July 2, 1980. We will examine your corrective actions and plans during subsequent inspections.

We appreciate your cooperation with us.

Sincerely,

C. E. Murphy, Chief
Reactor Construction and Engineering
Support Branch

cc: H. E. Yaeger, Plant Manager

P.O. BOX 529100, MIAMI, FL 33152

FPL
FLORIDA POWER & LIGHT COMPANY

August 4, 1980
L-80-256

Mr. James P. O'Reilly, Director, Region II
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

Re: RII:NE
50-250/80-20
50-251/80-17

Florida Power & Light Company has reviewed the subject inspection report and a response is attached.

There is no proprietary information in the report.

Very truly yours,

Robert E. Uhrig
Vice President
Advanced Systems & Technology

REU/MAS/pa

Attachment

cc: Harold F. Reis, Esquire

ATTACHMENT

Re: RII:NE
50-250/80-20
50-251/80-17

FINDING:

As required by Criterion V of Appendix B to 10 CFR 50, and implemented by FPL Topical FPLTQAR 1-76. Section 5, paragraph 5.1 specifies in part that activities affecting quality shall be accomplished in accordance with instructions, procedures, or drawings. Paragraph 8.2 of specification 5177-M-53 Appendix 13 "Welding Filler Material Requirements", states in part that at the end of each shift, or after 12 hours whichever is less, unused filler material shall be returned to the rod room and processed per Table 2.

Contrary to the above, between June 3 and 4, 1980, two (2) instances were identified where the aforementioned procedural requirements were not being followed.

(1) In the lower residual heat removal (RHR) heat exchanger room of Unit 3 the inspector observed 26 weld electrodes of 1/8" 7018 low hydrogen material in an area where no welding was in progress.

(2) At the work area of Unit 4 steam generator "C" feedwater nozzle, craft had left the work station at the end of their work shift without returning the unused weld electrodes to the rod room. Electrodes were observed resting on various locations of this work station and inside a portable warmer.

RESPONSE:

Corrective action consisted of immediate destruction of the weld rods. To prevent recurrence, the following steps have been taken:

1) written instructions, which give precise details on how to implement the requirements of specification 5177-M-53 for low hydrogen flux covered weld rod, have been issued for use by contractor welders,
2) whenever a welder is issued low hydrogen flux covered weld rod for a job he will also be issued an individual rod warmer,
3) each individual welder will discard used rod in a burnt rod discharger pail.

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

JUL 3 1980

In Reply Refer To:
RII:NE
50-250/80-20
50-251/80-17

Florida Power and Light Company
ATTN: R. E. Uhrig, Vice President
P. O. Box 529100
Miami, FL 33152

Gentlemen:

This refers to the inspection conducted by N. Economos of this office on May 27 through 29, 1980 and June 3 through 4, 1980 of activities authorized by NRC Operating License Nos. DPR-31 and DPR-41 for the Turkey Point facility, and to the discussion of our findings held with J. K. Hays at the conclusion of the inspection.

Areas examined during the inspection and our findings are discussed in the enclosed inspection report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector.

One new unresolved item resulted from this inspection and is discussed in the enclosed report. This item will be examined during subsequent inspections.

During the inspection, it was found that certain activities under your license appear to be in noncompliance with NRC requirements. This item and references to pertinent requirements are listed in the Notice of Violation enclosed herewith as Appendix A. This notice is sent to you pursuant to the provisions of Section 2.201 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations. Section 2.201 requires you to submit to this office, within 20 days of your receipt of this notice, a written statement or explanation in reply including: (1) corrective steps which have been taken by you and the results achieved; (2) corrective steps which will be taken to avoid further noncompliance; and (3) the date when full compliance will be achieved.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you (or your contractor) believe to be proprietary, it is necessary that you make a written application within 20 days to this office to withhold such information from public disclosure. Any such application must include a full statement of the reasons on the basis of which it is claimed that the information is proprietary, and should be prepared so that proprietary information identified in the application is contained in a separate part of the document. If we do not hear from you in this regard within the specified period, the report will be placed in the Public Document Room.

Should you have any questions concerning this letter, we will be glad to discuss them with you.

Sincerely,

C. E. Murphy, Chief
Reactor Construction and Engineering
Support Branch

Enclosures:
1. Appendix A, Notice of Violation
2. Inspection Report Nos. 50-250/80-20 and 50-251/80-17

cc w/encl:
H. E. Yaeger, Plant Manager

APPENDIX A

NOTICE OF VIOLATION

Florida Power and Light Company
Turkey Point, Units 3 and 4

License Nos. DPR-31
& DPR-41

Based on the NRC inspection May 27 to June 4, 1980, certain of your activities were apparently not conducted in full compliance with NRC requirements as indicated below. These items have been categorized as described in correspondence to you dated December 31, 1974.

As required by Criterion V of Appendix B to 10 CFR 50, and implemented by FPL Topical FPLTQAR 1-76, Section 5, paragraph 5.1 specifies in part that activities affecting quality shall be accomplished in accordance with instructions, procedures, or drawings. Paragraph 8.2 of specification 5177-M-53 Appendix 13 "Welding Filler Material Requirements", states in part that at the end of each shift, or after 12 hours whichever is less, unused filler material shall be returned to the rod room and processed per Table 2.

Contrary to the above, between June 3 and 4, 1980, two (2) instances were identified where the aforementioned procedural requirements were not being followed.

(1) In the lower residual heat removal (RHR) heater exchange room of Unit 3 the inspector observed 26 weld electrodes of 1/8" 7018 low hydrogen material in an area where no welding was in progress.

(2) At the work area of Unit 4 steam generator "C" feedwater nozzle, craft had left the work station at the end of their work shift without returning the unused weld electrodes to the rod room. Electrodes were observed resting on various locations of this work station and inside a portable warmer.

This is an infraction.

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

JUL 3 1980

Report Nos. 50-250/80-20 and 50-251/80-17

Licensee: Florida Power & 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, Florida

Inspector: _____ 6/27/80
N. Economos Date Signed

Approved by: _____ 6/27/80
for A. R. Herdt, Section Chief, RCES Branch Date Signed

SUMMARY

Inspection on May 28-29 and June 3-4, 1980

Areas Inspected

This routine, announced inspection involved 38.5 inspector-hours on site in the areas of follow-up of IE Bulletins 79-13 and 79-17 Rev. 1 (Units 3 & 4); Feedwater nozzle welding (unit 4).

Results

Of the three areas inspected, no items of noncompliance were identified in two areas; one item of noncompliance was found in one area (Infraction - failure to follow weld electrode - procedural requirements - paragraphs 5 and 7).

DETAILS

1. Persons Contacted

Licensee Employees

*J. K. Hays, Plant Manager - Nuclear
*J. P. Mendieta, Maintenance Superintendent - Nuclear
*G. Gotch, PRN - General Office
*R. E. Tucker, Level III Examiner
*S. M. Feith, Operations Supervisor - QA
*J. O'Brien, Project QC Supervisor
*F. W. Rothermel, Project Construction Supervisor

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

Other Organizations

Westinghouse Electric Corporation (W)

*J. M. Gilkinson, Senior Engineer S/G Materials Development
D. L. Wolker, Senior Field Service Engineer - Nuclear Service Division

Bechtel Power Croporation, (Bechtel)

L. Benett, Welding Engineer
J. Gregg, Project Field Engineer

Lambert MacGill Thomas, Inc. (LMT)

E. L. Thomas, Senior NDE Specialist, Level III examiner

U. S. Testing

J. P. Long, Level II RT Examiner

NRC Resident Inspectors

*R. Vogt-Lowell
W. Marsh

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on May 29 and June 4, 1980 with those persons indicated in paragraph 1 above. The inspector identified the areas inspected which included welding and NDE of feedwater piping, review of IE Bulletin 79-13 radiographs, work observation and

record review relative to IE Bulletin 79-17 Rev. 1. The noncompliance on weld electrode control described in paragraphs 5.a and 7 was discussed in detail.

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 noncompliance or deviations. New unresolved items identified during this inspection are discussed in paragraph 6.

5. IE Bulletin 79-13 "Cracking in Feedwater System Piping" (Unit 4)

a. Removal of the feedwater pipe welds found to contain cracks in steam generators (S/G) "A", "B" and "C" was in progress at the start of this inspection on May 27, 1980. This matter had been reported earlier by the licensee and was discussed in preliminary notification (PN) number PNO-II-80-94 and daily report on May 23 and 27, 1980 respectively.

The licensee discussed details of the repair plan and provided the inspector with copies of related nonconformance reports and process sheets 80-008 Rev. 2, 80-009 Rev. 1 80-010 Rev. 1 which were used to provide instructions for this repair activity. (W) provided engineering guidance and Bechtel was responsible for welding/NDE and related activities. The governing code was ANSI B31.1 (77S79). Welding procedures and welders were qualified in accordance with ASME Section IX. The governing welding specification was Bechtel's W.P.S 5177-M-53 with the following applicable appendicies: weld procedure qualifications - 11, 16 and 25; welding filler material control - 13; post weld heat treatment - 34 and 35. These and other procedures reviewed for technical content and/or code compliance included:

1. ASP-6 "Welding Control"
2. QI 9.1 Rev. 3 "Visual Inspection of Welds"
3. QI 9.3 Rev. 1 "Radiographic Inspection"

The inspector observed the crack indications in the feedwater nozzle to reducer weld of S/Gs 4A, 4B and 4C. Also the inspector witnessed liquid penetrant inspection of the 4C nozzle bore. This test showed (1) some pitting and (2) linear indications in the counterbore at the toe of the previous weld and at the throat between the 3 to 5 o'clock position, looking into the nozzle, in front of the thermal sleeve.

In all cases the crack indications appeared at the toe of the nozzle to reducer weld on the reducer side of the joint. The liquid penetrant results were relayed to (W) who subsequently provided specifics on the

method and amounts of metal that could be removed from the suspect area. In addition (W) supported RII's position that the nozzle to reducer joint be welded with an open butt weld instead of the backing ring type, proposed by Bechtel.

The inspector observed various stages of welding the reducer to pipe welds for S/Gs "A", "B", and "C"; the nozzle to reducer and pipe to pipe welds for S/Gs "A" and "C" were observed prior to the final pass. For these welds the inspector reviewed fabrication related QA/QC records, pipe material quality documents, welder performance qualifications, weld procedure qualification records and the radiographs for field weld No. 2on S/Gs "A" and "C".

Within these areas on the morning of June 4, 1980 the inspector noted the presence of a substantial quantity of low hydrogen coated electrodes scattered around the work area of Unit 4 S/G "C" feedwater nozzle. A portable rod warmer containing the same type electrodes was in this area also. In response to questioning the contractor's representative stated that this material should have been returned to the rod issue room by the craft at the end of the shift at midnight. Failure to return weld rod material to the rod room was contrary to requirements of procedure 5177-M-53 Appendix 13 "Welding Filler Material Requirements" paragraph 8.2 which states that at the end of each shift unused filler material shall be returned to the rod room and processed per Table 2, which requires that rod be returned to the rod room at the end of a work shift or after 12 hours whichever is less. The contractor representative destroyed the loose rod and took steps to have the warmer returned to the rod room.

In discussing this matter, the licensee QA representative stated that control of weld rod has been a problem at this site and had been identified in their latest audit surveillance report which had not yet been issued. Moreover the QA representative argued that since they (QA) had identified this problem earlier, the example of procedural violation stated above and that discussed in paragraph 7 of this report should be identified as unresolved items instead of a noncompliance. (In response to questioning the QA representative agreed that neither of the specific examples cited by the inspector had been identified in the QA surveillance report.) The inspector stated that he was not aware of QA's findings prior to his own and that the examples of uncontrolled rod found during this inspection effort shows that no effective corrective action had been taken to achieve control of weld rod materials as required by the approved procedure. Failure to accomplish activities affecting quality in accordance with approved procedures is in noncompliance with Criterion V of Appendix B 10 CFR 50 as implemented by paragraph 5.1 of FPL Topical FPLTQAR 1-76. This noncompliance was catagorized as an infraction and was identified as item: 250/80-17-01, 250/80-20-01, "failure to follow weld electrode procedural requirements".

b. Visual Inspection of Welds

The new welds being fabricated on the feedwater piping were visually inspected for compliance with the aforementioned code and QI-9.1 Rev. 3, "Visual Inspection of Welds", within these areas the inspector noted that the information entered in the appropriate QC form under material traceability of components (pipe), was the material type e.g., SA-106 or A-234 instead of the heat number normally entered under other code requirements. In discussing this matter with the licensee representative the inspector stated that while identification of material type may help to show material compatibility with regards to welding, it provides no useful information needed to trace the parts to quality records now on file - hence there appears to be a breakdown in the correlation of fabrication records with quality records. In response the licensee stated and the inspector agreed that the applicable code does not require this information to be recorded but agreed to look further into the matter and discuss it further on a future RE:II inspection. This matter was identified as an inspector followup item: 251/80-17-02 "Material traceability".

6. Review of Radiographs IE Bulletin 79-13 (Unit 3)

This work effort was a followup to the on going review of radiographs taken to verify the integrity of certain auxiliary feedwater pipe welds. This matter was discussed in RII Report Nos. 50-250/79-22 and 50-251/79-22. The following radiographs were reviewed to determine whether they met applicable code, ASME Section III (77S78) NC-5000 and to the 2T sensitivity level. The radiographic procedure was identified as QI-9.3 Rev. 1. As the cracking in unit 4 was on the reducer side of the feedwater nozzle to reducer weld, only radiographs of those welds in each of the three steam generators were reviewed. Within these areas radiographic positions 5 through 7 and 12 through 20 S/G "A" nozzle to reducer weld exhibited evidence of possible linear indication(s) within the weld metal and near the fusion line on the reducer side of the joint. The licensee level III examiner concurred with this finding and agreed to look further into the matter on the next Unit 3 extended outage. This item was identified as unresolved item 250/80-20-02: "Linear Indications S/G "A" Feedwater Nozzle".

7. IE Bulletin No. 79-17 Rev. 1 Pipe Cracks in Stagnant Borated Water Systems at Power Plants (Units 3 and 4)

Visual and volumetric examinations of selected welds for evidence of intergranular stress corrosion cracking (IGSCC) in stagnant borated water engineered safeguard pipe systems was being performed by Lambert, MacGill, Thomas Inc. (LMT) under contract with FPL. The ultrasonic (UT) examination procedure used for this program was developed and demonstrated using weld specimens with IGSCC indications in the HAZ. The procedure was written to comply with ASME Code Section XI (75S77) and Appendix III of the (W75) addenda. It had been approved for use by LMT's level III examiner and the licensee representative. The procedure and field changes entitled UT-10 Rev. 7 "Ultrasonic

examination of Nuclear Coolant System Piping for Stress Corrosion Cracking" was reviewed for technical content and compliance with the applicable code above. The inspection program, system and weld selection, was under the direction of the licensee's Power Resources Nuclear (PRN) staff. QA surveillance of field activities was provided by FPL site NDE level III examiner. Welds selected in Unit 3 for observation during UT examination were as follows:

Weld No.	Size	Type	Iso	System
2	8" sch. 40	Ell-to-Pipe	IC-248A	Safety Injection
12	8" sch. 40	Ell-to-Pipe	IC-248A	Safety Injection

In addition the inspector reviewed records of completed examinations in Unit 4. Welds selected for this effort were as follows:

Weld No.	Size	Type	Line
24	8" sch. 120	Ell to Tee	8"-SI-2501R
17	8" sch. 120	Pipe to Ell	8"-SI-2501R
12	8" sch. 120	Pipe to Ell	8"-SI-2501R
10	14" sch. 140	Pipe to Ell	14AC-2501R
3	3" sch. 80	Pipe to ELl	3"-SI-2501R

Within these areas the inspector reviewed personnel qualification, quality certifications of equipment and material and, observed equipment calibration, examination and evaluation of indications.

On June 3, 1980 while the examination of the Unit 3 welds discussed above was in progress inside the lower heater exchange room, the inspector observed a can with a substantial quantity of partially used and unused low hydrogen coated electrodes. There was no evidence of on-going welding activity in this area. This is another example of failure to exercise control of welding electrodes as required by the approved procedure which in noncompliance with Criterion V of Appendix B to 10 CFR 50 discussed in paragraph 5.a. of this report.

Within the areas inspected relative to IE Bulletin 79-17 Rev. 1 no items of noncompliance or deviations were identified.

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

NOV 21 1980

In Reply Refer To:
RII:WHM
50-250/80-19
50-251/80-20

IE FILE COPY

Florida Power and Light Company
ATTN: R. E. Uhrig, Vice President
Advanced Systems and Technology
P. O. Box 529100
Miami, FL 33152

Gentlemen:

Thank you for your letter of October 20, 1980, informing us of steps you have taken to correct the items of noncompliance and deviation concerning activities under NRC Operating License No. DPR-31 and DPR-41 brought to your attention in our letter of June 27, 1980. We have examined your corrective actions and have no further questions at this time.

We appreciate your cooperation with us.

Sincerely,

Charles E. Murphy, Chief
Reactor Construction and
Engineering Support Branch

cc: H. E. Yaeger
Plant Manager

USNRC RECD
OCT 22 AM 9:49

FLORIDA POWER & LIGHT COMPANY

October 20, 1980
L-80-344

Mr. James P. O'Reilly, Director, Region II
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

Re: RII:WHM
50-250/80-19
50-251/80-20

In our letter (L-80-244) dated July 28, 1980, which responded to the above inspection reports, we said we would have any necessary revisions to our fire training procedures reviewed and approved by October 15, 1980. In order to fulfill this committment, we systematically reviewed the requirements of Technical Specification 6.4.2 (which invokes NFPA 27) and our existing fire training procedures to determine if our program procedures fully implemented these requirements. In the course of this review, it became apparent that some other aspects of the procedures could be improved in addition to the records portions. Because of this change of scope, our scheduled submittal date of October 15, 1980 is no longer practical. On October 14, 1980, we verbally requested, from our resident inspector, an extension of this commitment to November 15, 1980. We had been unable to contact the inspector who performed the inspection because he was out of the office.

In our letter L-80-244, we also said we would provide evaluations of the actions we plan to take in response to the six deviations from the commitments identified in the inspection report. These evaluations are attached.

Very truly yours,

J. A. De Mostry
for

Robert E. Uhrig
Vice President
Advanced Systems and Technology

REU/MAS/ah
Attachment
cc: Harold F. Reis, Esquire

OFFICIAL COPY

PEOPLE . . . SERVING PEOPLE

ATTACHMENT

RE: RII:WHM
50-250/80-19
50-251/80-20

ITEM 1. Plant Procedure 0190.19 (Control of Maintenance of Nuclear Safety Related and Fire Protection Systems) will be revised by December 31, 1980 to designate the on site position/organization responsible for the review and evaluation of Plant Work Orders to identify potential transient fire loads.

ITEM 2. Plant and contractor personnel are presently receiving training in appropriate fire protection administrative procedures and emergency fire protection procedures as part of the "red badge" Health Physics course. Plant Procedure 11550.81 (Health Physics Training) will be revised by November 15, 1980 to include a requirement that this fire protection training be included in the "red badge" course.

ITEM 3. Plant Procedure 0190.19 (Control of Maintenance of Nuclear Safety Related and Fire Protection Systems) will be modified by December 31, 1980, to require a review of transient fire loads resulting during maintenance and modification work activities and the need for additional fire protection equipment to be provided in this area.

ITEMS 4, 5 and 6.

In our letter (L-78-197) dated June 5, 1978, we stated that we would meet the intent of the Control of Welding, Cutting, Grinding and Open Flame Work Section by adhering to the FP&L Welding and Cutting Guidelines enclosed in that letter. Additional comments on each item are as follows:

ITEM 4. We do not feel that further procedures are necessary to control open flame and other possible ignition sources due to the minimal fire hazards involved in these operations because of other restrictions on combustible materials at the work site.

ITEM 5. The work experience and the fire prevention knowledge of the supervisors who approve welding and cutting permits make further formal industrial fire fighting and fire prevention training unnecessary.

ITEM 6. It is a common work practice for workers to check tools and equipment prior to use. The operators of the oxyacetyline equipment perform these checks and also routinely check the pressure reading on the equipment during use.

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

AUG 2 5 1980

In Reply Refer To:
RII:WHM
50-250/80-19
50-251/80-20

Florida Power & Light Company
ATTN: R. E. Uhrig, Vice President
Advanced Systems & Technology
P. O. Box 529100
Miami, FL 33152

Gentlemen:

Thank you for your letter of July 28, 1980, informing us of steps you have taken to correct the items of noncompliance and deviation concerning activities under NRC Operating License Nos. DPR-31 and DPR-41 brought to your attention in our letter of June 27, 1980. We will examine your corrective actions and plans during subsequent inspections.

We appreciate your cooperation with us.

Sincerely,

Charles E. Murphy, Chief
Reactor Construction & Engineering
Support Branch

cc: H. E. Yaeger, Plant Manager

P.O. BOX 529100, MIAMI, FL 33152

USNRC REGION II
ATLANTA, GEORGIA

80 AUG 1 AM 11:16

FPL
FLORIDA POWER & LIGHT COMPANY

July 28, 1980
L-80-244

Mr. James P. O'Reilly, Director, Region II
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

Re: RII:WHM
50-250/80-19
50-251/80-20

Florida Power & Light Company has reviewed the subject inspection report and a response is attached.

There is no proprietary information in the report.

Very truly yours,

Robert E. Uhrig

Robert E. Uhrig
Vice President
Advanced Systems & Technology

REU/MAS/cph

Attachment

cc: Harold F. Reis, Esquire

OFFICIAL COPY

ATTACHMENT

Re: RII:WHM
50-250/80-19
50-251/80-20

FINDING

As required by Section 6.4.2 of the Technical Specifications, a fire brigade training program which meets or exceeds the requirements of National Fire Protection Association Manual No. 27 (NFPA), Private Fire Brigades, is required to be maintained except training sessions are required to be conducted quarterly. Sections 41 and 42 of NFPA-27 requires a schedule of training to be established and to be adopted to the needs of the brigade and to include actual fire fighting operations. Section 51 of NFPA-27 requires practice drills to be conducted to check the ability of the brigade members to perform the operations that they are expected to carry out.

Contrary to the above, records available do not indicate that all members of the brigade, primarily members from operations, routinely attend the quarterly fire brigade training drills, participate in actual fire fighting practice sessions, participate in quarterly schedued classroom training sessions, and, that fire brigade team leaders are given advanced training in fire protection and fire fighting.

RESPONSE

As corrective action, we will review and revise as necessary our procedures related to fire training to ensure that they clearly delineate the records which are required to be generated and retained to adequately document complianee with the requirements of Technical Specification 6.4.2. These procedures will be reviewed by September 15, 1980, and any necessary revisions to them will be reviewed by the Plant Nuclear Safety Committee and approved by the Plant Manager by October 15, 1980. In order to prevent recurrence of this finding, Quality Control inspectors will perform surveillances of the records generated in compliance with the revised procedures and Quality Assurance auditors will audit the records generated. Full compliance will be achieved by October 15, 1980.

FINDING

Florida Power & Light (FP&L) Company's letter L-78-197 from R. E. Uhrig to A. Schwencer, NRC, dated June 5, 1978 states in part that the NRC guidelines entitled "Nuclear Plant Fire Protection Functional Responsibilities, Administrative Controls, and Quality Assurance" dated June 14, 1977, would be adhered to except as noted within Enclosure 1 to the June 5, 1978 letter.

Contrary to the above, the fire protection administrative control procedures do not meet the following NRC guidelines and no exception to these guidelines were identified in FP&L's letter of June 5, 1978:

1. Onsite plant procedures do not designate the onsite position responsible for the review and evaluation of proposed work activities to identify potential transient fire loads as required by Paragraph 1.d.(4) of Attachment 1 to NRC guidelines.

2. Existing procedures do not require a program to indoctrinate all plant contractor personnel in appropriate fire protection administrative procedures and emergency fire protection procedures as required by Pargraph 1.d.(5) of Attachment 1 to NRC guidelines.

3. Procedures do not address the review of transient fire loads resulting during maintenance and modification work activities and the need for additional fire protection equipment to be provided in the work area as required by Paragraph b of Attachment 3 to the NRC guidelines.

4. Procedures are not provided for the control of open flame and other possible ignition sources other than welding and cutting operations as required by Paragraph 1 of Attachment 4 to the NRC guidelines.

5. Procedures do not require the supervisor who approves welding and cutting permits to be trained in industrial fire fighting and fire prevention as required by Paragrpah 2.a of Attachment 4 to the NRC guidelines.

6. Procedures do not require oxyacetylene equipment to be checked for leaks before being mvoed into the work area as required by paragraph 2.b.(4) of Attachment 4 to the NRC guidelines.

RESPONSE

Becuase of the potential for change in the federal regulations addressing fire protection (i.e., proposed Appendix R to 10 CFR 50), we find it advisable to establish a position on each of the items listed above. Therefore, we plan to evaluate each item and either (1) implement it in accordance with the guideline, (2) implement an alternate action that will accomplish the objective of the guideline or (3) establish justification for not revising our current program. We will advise you of the results of our evaluation by October 15, 1980.

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

JUN 27 1980

In Reply Refer To:
RII:WHM
50-250/80-19
50-251/80-20

Florida Power and Light Company
ATTN: R. E. Uhrig, Vice President
P. O. Box 529100
Miami, FL 33152

Gentlemen:

This refers to the inspection conducted by W. H. Miller, Jr., of this office on June 4 through 6, 1980 of activities authorized by NRC Operating License Nos. DPR-31 and DPR-41 for the Turkey Point facility, and to the discussion of our findings held with J. K. Hays at the conclusion of the inspection.

Areas examined during the inspection and our findings are discussed in the enclosed inspection report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector.

One new unresolved item resulted from this inspection and is discussed in the enclosed report. This item will be examined during subsequent inspections.

During the inspection, it was found that certain activities under your license appear to be in noncompliance with NRC requirements. This item and references to pertinent requirements are listed in the Notice of Violation enclosed herewith as Appendix A. This notice is sent to you pursuant to the provisions of Section 2.201 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations. Section 2.201 requires you to submit to this office, within 20 days of your receipt of this notice, a written statement or explanation in reply including: (1) corrective steps which have been taken by you and the results achieved; (2) corrective steps which will be taken to avoid further noncompliance; and (3) the date when full compliance will be achieved.

During the inspection it was found that certain activities under your license appear to deviate from commitments to the Commission and have safety significance. This item is identified in the Notice of Deviation enclosed herewith as Appendix B. Please provide us in writing within 20 days of your receipt of this letter your comments including a description of corrective actions that have been or will be taken, corrective actions which will be taken to avoid further deviations, and the date corrective actions were or will be completed.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you (or your contractor) believe to be proprietary, it is necessary that you make a written application within 20 days to this office to withhold such information from public disclosure. Any such application must

include a full statement of the reasons on the basis of which it is claimed that the information is proprietary, and should be prepared so that proprietary information identified in the application is contained in a separate part of the document. If we do not hear from you in this regard within the specified period, the report will be placed in the Public Document Room.

Should you have any questions concerning this letter, we will be glad to discuss them with you.

Sincerely,

C. E. Murphy, Chief
Reactor Construction and Engineering
Support Branch

Enclosures:
1. Appendix A, Notice of Violation
2. Appendix B, Notice of Deviation
3. Inspection Report Nos. 50-250/80-19 and 50-251/80-20

cc w/encl:
H. E. Yaeger, Plant Manager

APPENDIX A

NOTICE OF VIOLATION

Florida Power and Light Company
Turkey Point

License Nos. DPR-31
& DPR-41

Based on the NRC inspection June 4-6, 1980, certain of your activities were apparently not conducted in full compliance with NRC requirements as indicated below. These items have been categorized as described in correspondence to you dated December 31, 1974.

As required by Section 6.4.2 of the Technical Specifications, a fire brigade training program which meets or exceeds the requirements of National Fire Protection Association Manual No. 27 (NFPA-27), Private Fire Brigades, is required to be maintained except training sessions are required to be conducted quarterly. Sections 41 and 42 of NFPA-27 requires a schedule of training to be established and to be adopted to the needs of the brigade and to include actual fire fighting operations. Section 51 of NFPA-27 requires practice drills to be conducted to check the ability of the brigade members to perform the operations that they are expected to carry out.

Contrary to the above, records available do not indicate that all members of the brigade, primarily members from operations, routinely attend the quarterly fire brigade training drills, participate in actual fire fighting practice sessions, participate in quarterly scheduled classroom training sessions, and, that fire brigade team leaders are given advanced training in fire protection and fire fighting.

This is an infraction.

APPENDIX B

NOTICE OF DEVIATION

Florida Power and Light Company
Turkey Point

License Nos. DPR-31
& DPR-41

Based on the results of the U.S. Nuclear Regulatory Commission inspection conducted on June 4-7, 1980 certain of your activities appear to deviate from your commitments to the Commission as indicated below:

Florida Power and Light (FP&L) Company's letter L-78-197 from R. E. Uhrig to A. Schwencer, NRR dated June 5, 1978 states in part that the NRC guidelines entitled "Nuclear Plant Fire Protection Functional Responsibilities, Administrative Controls, and Quality Assurance" dated June 14, 1977, would be adhered to except as noted within Enclosure 1 to the June 5, 1978 letter.

Contrary to the above, the fire protection administrative control procedures do not meet the following NRC guidelines and no exception to these guidelines were identified in FP&L's letter of June 5, 1978:

1. Onsite plant procedures do not designate the onsite position responsible for the review and evaluation of proposed work activities to identify potential transient fire loads as required by Paragraph 1.d.(4) of Attachment 1 to NRC guidelines.

2. Existing procedures do not require a program to indoctrinate all plant contractor personnel in appropriate fire protection administrative procedures and emergency fire protection procedures as required by Paragraph 1.d.(5) of Attachment 1 to NRC guidelines.

3. Procedures do not address the review of transient fire loads resulting during maintenance and modification work activities and the need for additional fire protection equipment to be provided in the work area as required by Paragraph b of Attachment 3 to the NRC guidelines.

4. Procedures are not provided for the control of open flame and other possible ignition sources other than welding and cutting operations as required by Paragraph 1 of Attachment 4 to the NRC guidelines.

5. Procedures do not require the supervisor who approves welding and cutting permits to be trained in industrial fire fighting and fire prevention as required by Paragraph 2.a of Attachment 4 to the NRC guidelines.

6. Procedures do not require oxyacetylene equipment to be checked for leaks before being moved into the work area as required by paragraph 2.b.(4) of Attachment 4 to the NRC guidelines.

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

Report Nos. 50-250/80-19 and 50-251/80-20

Licensee: Florida Power & 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, Florida

Inspector: T. E. Conlon for 6/27/80
W. H. Miller, Jr. Date Signed

Approved by: T. E. Conlon 6/27/80
T. E. Conlon, Section Chief, RCES Branch Date Signed

SUMMARY

Inspection on June 4-6, 1980

Areas Inspected

This routine, unannounced inspection involved 17 inspector-hours on site in the areas of fire protection/prevention.

Results

Of the areas inspected, one item of noncompliance was found (Infraction - inadequate fire brigade training program - paragraph 5.a); and, one deviation was found (Deviation - fire protection administrative control procedures do not meet the NRC guidelines - paragraph 5.d).

DETAILS

1. Persons Contacted

Licensee Employees

H. E. Yaeger, Site Manager
*J. K. Hays, Plant Manager - Nuclear
*D. W. Jones, QC Supervisor
*W. A. Klein, Technical Department
*T. E. Knox, Training Supervisor
*W. C. Miller, Nuclear Training
*R. E. Tucker, QA Engineer
*E. F. Baker, QA Engineer
*R. A. Kaminsky, Nuclear Licensing/GO
*G. A. Patrissi, Fire Protection Administrator/GO
V. B. Wagner, Nuclear Operations

NRC Resident Inspector

*R. Vogt-Lowell
*W. Marsh

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on June 6, 1980 with those persons indicated in Paragraph 1 above.

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 noncompliance or deviations. New unresolved items identified during this inspection are discussed in paragraph 5.b.

5. Fire Protection Program

The inspector reviewed the fire brigade organization and training and the fire protection administrative control procedures for this facility.

a. Fire brigade

Presently, there are two fire brigade organizations at Turkey Point. One brigade is composed of maintenance employees and the other brigade is composed of operations employees. Since the maintenance employees are not available at the site 24 hours a day, seven days per week, the

brigade composed of the operation's personnel are used to meet the three man fire brigade requirements of Technical Specification Section 6.2. A fire brigade training program is required by Section 6.4.2 of the Technical Specifications to be maintained. This training program is required to meet or exceed the requirements of National Fire Protection Association manual No. 27 (NFPA-27) Private Fire Brigades, except training sessions are only to be conducted quarterly. Sections 41 and 42 of NFPA-27 requires a schedule of training to be established for members of the brigade, to be adapted to the purpose of the brigade and to include actual fire fighting operations with extinguishers and fire hose lines. Section 51 of NFPA-27 requires practice drills to be conducted to check the ability of the brigade members to perform the operations they are expected to carry out. Presently, the records available at the site indicates that the operation members of the brigade do not routinely attend the required quarterly fire brigade training drills and practice sessions. The records available do not identify the type classroom training received and the date of training. Records available for review indicate that many fire brigade members have not received any actual "hands-on" fire fighting training since 1979 and a number of them have not received any actual fire fighting training since 1977. This item was identified as Noncompliance (Infraction) Item (250/80-19-01 and 251/80-20-01), inadequate fire brigade training program. Also, data was not available to indicate that the team leaders for the fire brigade had received the advance training required by Section 8.4.1 of Turkey Point Adminstrative Procedure 0305, Emergency Team Training. This is also included as a part of this noncompliance.

b. Fire brigade organization and training procedures

A review was made of the fire brigade organization and training procedures which include Turkey Point Adminstrative Procedure 0305, Emergency Team Training, and Procedure 15500, Fire Protection Program. These procedures do not address or do not provide adequate details to meet many of the NRC fire protection guidelines of the document entitled, Nuclear Plant Fire Protection Functional Responsibilities, Administrative Controls and Quality Assurance. Examples of areas in which the licensee's fire brigade procedures do not meet the NRC guidelines are as follows:

(1) Qualifications of brigade members are not provided as required by Paragraph 2.b of Attachment 1 to the NRC guidelines.

(2) Annual practice sessions for each brigade member are not a mandatory requirement as required by Paragraph 2 of Attachment 2 to the NRC guidelines.

(3) Qualifications of fire brigade training instructors are not defined as required by Paragraph 1.b of Attachment 2 to the NRC guidelines.

(4) Simulated use of fire fighting equipment in drills is not stipulated as required by Paragraph 3.c of Attachment 2 to the NRC guidelines.

(5) Some drills are not specified to be conducted on backshift and unannounced as required by Paragraph 3.e of Attachment 2 to the NRC guidelines.

(6) All drills are not required to be preplanned as required by Paragraph 3.f of Attachment 2 to the NRC guidelines.

(7) Fire fighting strategies are not provided for safety-related areas of the plant as required by Paragraph d of Attachment 5 of the NRC guidelines.

These above items are examples of some of the fire brigade training and organization features currently being evaluated by NRC (NRR). This item is identified as Unresolved Item (250/80-19-03 and 251/80-20-03), fire brigade organization and training does not meet the NRC guidelines, and will be reviewed upon completion of the NRR evaluation.

Data was not available at the site to adequately review the scope of the physical examinations given to the members of the fire brigade to determine if this examination included performance of strenuous activity as required by Paragraph 2.b of Attachment 1 to the NRC guidelines. The licensee advised that this data would be available at the site prior to a reinspection of the fire protection program area. This item is identified as Inspector Followup Item. (250/80-19-04 and 251/80-20-04) scope of fire brigade physical examinations, and will be reviewed during a subsequent NRC inspection.

c. Offsite fire protection forces

This site is dependent upon the professional fire fighting forces at the adjacent Homestead Air Force Base and Dade County Fire Department. The records available for review indicates that an extensive training program existed between the plant and the offsite fire departments in 1977. However, since that time very little contact has been made between the plant and the offsite departments. The most recent visit by Dade County appears to have been a brief visit during an emergency drill in October 1978. During 1978 several visits were made to the plant by the Air Force Fire Department but no drills or training were apparently conducted in 1979. On May 26, 1980 six Air Force fire fighters visited and toured the facility. The licensee advised that planning is underway to improve the fire and radiation training provided to the offsite departments by the plant. This item is considered part of the unresolved item in paragraph 5.b. and will be reviewed during a subsequent NRC inspection.

The procedures for requesting offsite fire fighting assistance are not consistent. Emergency Procedure 20107 and Duties of Emergency Coordinator Procedure 20101 require that both the Dade County and Homestead

Air Force Base Fire Departments be contacted for assistance in the event of large fires. However, Emergency roster procedure 20104 (call list) requires that Dade County Fire Department be called only for fires in non radiation areas and the Homestead Air Force Base Fire Department be called only for fires in the radiation areas of the plant. The licensee is to review this problem and these procedures and take necessary corrective action prior to September 1, 1980. This item is identified as Inspector Followup Item (250/80-19-05 and 251/80-20-05), inconsistent procedures for requesting offsite fire fighting assistance, and will be reviewed during a subsequent NRC inspection.

d. Fire protection administrative control procedures

The licensee's procedures were reviewed to assure compliance with the NRC guidelines contained in document entitled, Nuclear Plant Fire Protection Functional Responsibilities, Administrative Controls and Quality Assurance as commited to by the licensee in letter L-78-197 from Robert E. Uhrig of FP&L to A. Schwemcer of NRR dated June 5, 1978. The following discrepancies were noted:

(1) Procedures do not designate the onsite position responsible for the review and evaluation of proposed work activities to identify potential transient fire loads, as required by Paragraph 1.d(4) of Attachment 1 to NRC guidelines.

(2) Procedures do not require a program to indoctrinate all plant contractor personnel in appropriate fire protection administrative procedures and emergency fire protection procedures as required by Paragraph 1.d.(5) of Attachment 1 to NRC guidelines.

(3) Procedures do not address the review of transient fire loads occuring during maintenance and modification work activities and the need for additional fire protection equipment to be provided in the work area as required by Paragraph B of Attachment 3 to the NRC guidelines.

(4) Procedures are not provided for the control of open flames and other possible iginition sources other than welding and cutting operations as required by Paragraph 1 of Attachment 4 to the NRC guidelines.

(5) Procedures do not require the supervisor who approves welding and cutting permits to be trained in industrial fire fighting and fire prevention as required by Paragraph 2.a of Attachment 4 to the NRC guidelines.

(6) Procedures do not require oxyacetylene equipment to be checked for leaks before being moved into the work area as required by Paragraph 2.b.(4) of Attachment 4 to the NRC guidelines.

The above procedure discrepancies are considered a failure to meet a commitment to the NRC and are identified as Deviation Item (250/80-19-02 and 251/80-20-02), Fire protection Administrative procedures do not meet the NRC guidelines.

Except as noted above, within the areas examined no additional items of noncompliance or deviations were disclosed.

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

SEP 29 1980

In Reply Refer To:
RII:RMC
50-250/80-18
50-251/80-18

Florida Power & Light Company
ATTN: R. E. Uhrig, Vice President
Advanced Systems & Technology
P. O. Box 529100
Miami, FL 33152

Gentlemen:

Thank you for your letters of August 8, 1980, September 8, 1980, and September 15, 1980, informing us of steps you have taken to correct the item of noncompliance concerning activities under NRC Operating License No. DPR-41 brought to your attention in our letter of July 10, 1980. We will examine your corrective actions and plans during subsequent inspections.

We appreciate your cooperation with us.

Sincerely,

Charles E. Murphy, Chief
Reactor Construction & Engineering
Support Branch

cc: H. E. Yaeger, Plant Manager

P.O. BOX 529100 MIAMI, FL 33152

FLORIDA POWER & LIGHT COMPANY

September 15, 1980
L-80-303

Mr. James P. O'Reilly, Director, Region II
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

Re: RII:RMC
50/250/80-18
50/251/80-18

On September 8, 1980 (L-80-293), Florida Power & Light Company described the corrective action which will be taken in response to the subject inspection. We stated that complete reinspections will be performed of the discrepant items. This letter provides the additional corrective action necessary to resolve the inspection finding.

Florida Power & Light Company plans to compare the supports that were identified during the IE Bulletin 79-14 program with the supports that were inspected during the IE Bulletin 79-02 program. The purpose of this comparison is to confirm that all supports requiring inspection in accordance with IE Bulletin 79-02 have been inspected. This activity will be completed prior to January 1, 1981. A procedure for accomplishing the activity will be written by September 22, 1980. Since the Turkey Point Unit 4 refueling outage will begin on approximately November 10, 1980, the comparison will begin with systems inside Unit 4 containment.

In response to the discrepancies that are concerned with IE Bulletin 79-02 documentation, an engineering examination of the documentation developed during the May-June, 1979 Unit 4 refueling outage will be conducted prior to January 1, 1981. FPL believes the concern is limited to the first inspection, i.e., the May-June inspection, because of; (1) procedural changes (see Attachment A for chronological history of inspection procedure changes and Attachment B for history of QC procedural changes), (2) improved training due to experience gained during the May-June outage and the use of training mock-ups, (3) the assignment of Level II QC inspectors to evaluate the documentation as it left the field (see Attachment B), and (4) the results from a subsequent FPL audit (TPQ-80-033 dated April 8, 1980). A procedure for conducting the engineering examination of the IE Bulletin 79-02 May-June, 1979 documentation will be written by October 15, 1980. If after an examination of 35% of the total May-June documentation, the number of unacceptable deviations is less than 5% at a

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95% confidence level, the examination program will be terminated.

Unacceptable deviations identified in the IE Bulletin 79-14 and 79-02 comparisons, and the engineering examination of the 79-02 documentation will result in inspections of the specific discrepant items. Inspections and repairs on systems which are inaccessible during normal operation will be conducted during scheduled outages.

Future QC training for the remaining IE Bulletin 79-02 and 79-14 work will emphasize the need to follow procedures.

Very truly yours,

Jack E. Vesely for

Robert E. Uhrig
Vice President
Advanced Systems & Technology

REU/RAK/ah

Attachments

cc: Harold F. Reis, Esquire

ATTACHMENT A

Re: RII:RMC
50-250/80-18
50-251/80-18

The following revisions were made to Bechtel Repair Procedure 5177-098-P-1 during the course of the IE Bulletin 79-02 work:

REVISION 0, 5/5/79

Issued for Use.

REVISION 1, 5/10/79

Revised reference document from CPL: W110.24 to CPL: Q110.24.

Revised to allow alternate hole location in cases where rebar was encountered during core drilling operations.

Revised to reference NCR disposition for hole depth and anchor location, spacing, type, length and diameter.

Revised to reference Bechtel welding procedure number.

Revised to clarify bolt projection. Instead of "The bolt projection shall provide a minimum of 2 threads per nut.", the words "per nut" were revised to read "past the nut".

REVISION 2, 5/18/79

Revised to reference the use of deficiency reports in addition to nonconformance reports.

Revised to require submission of cut rebar records to engineering for evaluation.

Added requirement to maintain records of deficiency reports.

Added torque values for Hilti Kwik-Bolts.

Revised Figure 1 to show required weld dimensions for base plate repair.

REVISION 3, 10/29/79

Added provision to permit relocation of small pipe supports up to 2 feet along the axis of the pipe.

REVISION 4, 10/19/79

Deleted requirement to give Inspection Reports and Deficiency Reports to Bechtel,

Lead Resident Engineer for evaluation.
(Rev. 4 only requires NCR's to be forwarded.)

Added provision to permit relocation of large pipe supports in accordance with Spec. 5177-M-56 (after verification of design location).

Added piping Specs. 5177-M-56 and 5177-M-53 as reference documents.

Deleted requirement to send final copies of Procurement documentation wrench calibration records, as-builts, and deficiency reports to Project Engineer.

Governing document for welding and weld examination was changed to Spec. 5177-M-53 (welding was formerly controlled by Bechtel Welding Procedure P1-A-Lh; weld examination was formerly as per ANSI B31.1.

REVISION 5, 12/18/79

Added option to extend existing base plates "with plate stiffener, if needed".

REVISION 6, 2/28/80

Revised torque values for Hilti-Kwik bolts for lower allowable torques per manufacturer test results.

REVISION 7, 8/28/80

Added torque value for ¼ inch diameter Hilti-Kwik bolt to allow field use of this size bolt.

ATTACHMENT B

Re: RII:RMC
50-250/80-18
50-251/80-18

Quality Instruction 10.24, "Inspection and Testing of Concrete Expansion Anchors for Installed Pipe Supports," was revised on October 30, 1979 prior to the next I. E. Bulletin 79-02 Anchor Bolt Inspection/Repair Program. The revisions were of two general types:

1) Refinements, based upon field experience during the first unit work, which defined how to accomplish the inspection task.

2) The inclusion of a paper review by Senior Level II QC inspectors to identify inconsistent data and the inclusion of acceptance criteria for QC to perform an accept/reject review. These changes are reflected in the new/revised Attachments #2, 3, 4, & 5 to QI 10.24 Rev. 1 dated 10/31/79.

The changes that were made in Rev. 1 of QI 10.24 resulted in the Quality Control Department making a major change in the processing of Inspection Reports for subsequent I. E. Bulletin 79-02 work.

Upon completion of an inspection in the field the Inspection Record was routed to a Level II - 79-02 evaluator, who performed an indepth review of the Inspection Report for completeness, acceptability and legibility. The Level II inspector was responsible for determining the acceptability or rejectability of the Inspection Report, which resulted in one of the following three conditions:

1. As-found condition is acceptable and no further work is required.

2. As-found condition is unacceptable and a descrepancy report is generated.

3. Inspection Report is incomplete or inconsistent and the report sent back to the field for completion of inspection.

This screening process by the Senior Level II inspector identified inconsistent data at a time frame that the questions could be easily resolved resulting in better quality Inspection Reports.

A further review was performed on the completed Isometric Drawing packages, which included all Inspection Reports and Descrepancy Reports, by a Level II - 79-02 Evaluator to further assure the completeness and acceptability of the inspection process prior to transmittal to the QA vault.

USNRC REGION II
ATLANTA, GEORGIA

80 SEP 11 AM 11:03

FLORIDA POWER & LIGHT COMPANY

September 8, 1980
L-80-293

Mr. James P. O'Reilly, Director, Region II
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

Re: RII:RMC
50-250/80-18
50-251/80-18 /A

Florida Power & Light Company has reviewed the subject inspection report and a response is attached.

There is no proprietary information in the report.

Very truly yours,

J. A. de Mustey
for
Robert E. Uhrig
Vice President
Advanced Systems & Technology

REU/PLP/pah

Attachment

cc: Harold F. Reis, Esquire

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PEOPLE . . . SERVING PEOPLE

ATTACHMENT

Re: RII:RMC
50-250/80-18
50-251/80-18

FINDING

As required by Criterion V of Appendix B to 10 CFR 50, as implemented by Florida Power and Light Topical Quality Assurance Report Section 5.0, "Activities affecting quality shall be prescribed by documented instructions, procedures...and shall be accomplished in accordance with those instructions, procedures,...". Florida Power and Light Quality Instruction 10.24, titled "Inspection and Testing of Concrete Expansion Anchors for Installed Pipe Supports", has the following requirements:

1. Sections 1.0 and 2.0 state that concrete expansion anchors for Seismic Category I systems are to be inspected and tested as required to fulfill the requirements of IE Bulletin 79-02.

2. Section 4.2.5 requires documentation of the length of wedge type anchors by ultrasonic examination.

3. Section 4.2.9 requires documentation of expansion pins and washer position for "wej-it" type expansion anchors.

Contrary to the above:

1. Quality Assurance records do not indicate that expansion anchors for the following supports in Seismic Category I systems were inspected or tested as required.

   a. Three supports, 001, 002, and 007 on isometric 719.

   b. Supports 4VCH65 and 4VCH67 on isometric 268.

2. The inspection records for one bolt each on supports H7 and H8 on isometric 712 show zero inches for bolt length but indicate that bolts are installed. No explanation or justification was noted.

3. The washer expansion pin inspection block was marked "not applicable" for "wej-it" anchors on supports H7, H8, and H9 on isometric 712.

RESPONSE

Upon review by Florida Power & Light Company and the Architect-Engineer it has been concluded that the proper corrective action is to completely reinspect all of the discrepant items identified by the audit.

Because these supports are located in Containment on Unit 4 they will be available for inspection during the regular refueling outage commencing approximately 10 November 1980.

The additional scope needed to resolve this item will be defined by October 8, 1980.

P. O. BOX 529100, MIAMI, FL 33152

FPL
FLORIDA POWER & LIGHT COMPANY

USNRC REGION II
ATLANTA, GEORGIA

80 AUG 14 A 9: 40

August 8, 1980
L-80-264

Mr. James P. O'Reilly, Director, Region II
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

Re: RII:RMC
50-250/80-18
50-251/80-18

Florida Power & Light Company has reviewed the subject inspection report and has initiated coordination with the Architect-Engineer to disposition the inspection findings. A followup report is scheduled for submittal to your office by September 1, 1980.

Please call if you have additional questions on this subject.

Very truly yours,

Robert E. Uhrig
Vice President
Advanced Systems & Technology

REU/MAS/ms

cc: Harold Reis, Esquire

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

JUL 10 1980

In Reply Refer To:
RII:RMC
50-250/80-18
50-251/80-18

Florida Power and Light Company
ATTN: R. E. Uhrig, Vice President
P. O. Box 529100
Miami, FL 33152

Gentlemen:

This refers to the inspection conducted by R. M. Compton of this office on June 3 through 6, 1980 of activities authorized by NRC Operating License Nos. DPR-31 and DPR-41 for the Turkey Point facility, and to the discussion of our findings held with J. K. Hays at the conclusion of the inspection.

Areas examined during the inspection and our findings are discussed in the enclosed inspection report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector.

We have examined actions you have taken with regard to previously reported unresolved items. The status of these items is discussed in the enclosed report.

One new unresolved item resulted from this inspection and is discussed in the enclosed report. This item will be examined during subsequent inspections.

During the inspection, it was found that certain activities under your license appear to be in noncompliance with NRC requirements. This item and references to pertinent requirements are listed in the Notice of Violation enclosed herewith as Appendix A. This notice is sent to you pursuant to the provisions of Section 2.201 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations. Section 2.201 requires you to submit to this office, within 20 days of your receipt of this notice, a written statement or explanation in reply including: (1) corrective steps which have been taken by you and the results achieved; (2) corrective steps which will be taken to avoid further noncompliance; and (3) the date when full compliance will be achieved.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you (or your contractor) believe to be proprietary, it is necessary that you make a written application within 20 days to this office to withhold such information from public disclosure. Any such application must include a full statement of the reasons on the basis of which it is claimed that the information is proprietary, and should be prepared so that proprietary information identified in the application is contained in a separate part of the document. If we do not hear from you in this regard within the specified period, the report will be placed in the Public Document Room.

JUL 1 0 1980

Should you have any questions concerning this letter, we will be glad to discuss them with you.

Sincerely,

C. E. Murphy, Chief
Reactor Construction and Engineering
Support Branch

Enclosures:
1. Appendix A, Notice of Violation
2. Inspection Report Nos. 50-250/80-18 and 50-251/80-18

cc w/encl:
H. E. Yaeger, Plant Manager

APPENDIX A

NOTICE OF VIOLATION

Florida Power and Light Company
Turkey Point

License Nos. DPR-41

Based on the NRC inspection June 3-6, 1980, certain of your activities were apparently not conducted in full compliance with NRC requirements as indicated below. These items have been categorized as described in correspondence to you dated December 31, 1974.

As required by Criterion V of Appendix B to 10 CFR 50, as implemented by Florida Power and Light Topical Quality Assurance Report Section 5.0, "Activities affecting quality shall be prescribed by documented instructions, procedures... and shall be accomplished in accordance with those instructions, procedures,...". Florida Power and Light Quality Instruction 10.24, titled "Inspection and Testing of Concrete Expansion Anchors for Installed Pipe Supports", has the following requirements:

1. Sections 1.0 and 2.0 state that concrete expansion anchors for Seismic Category I systems are to be inspected and tested as required to fulfill the requirements of IE Bulletin 79-02.

2. Section 4.2.5 requires documentation of the length of wedge type anchors by ultrasonic examination.

3. Section 4.2.9 requires documentation of expansion pins and washer position for "wej-it" type expansion anchors.

Contrary to the above:

1. Quality Assurance records do not indicate that expansion anchors for the following supports in Seismic Category I systems were inspected or tested as required:

   a. Three supports, 001, 002, and 007 on isometric 7T9.

   b. Supports 4VCH65 and 4VCH67 on isometric 268.

2. The inspection records for one bolt each on supports H7 and H8 on isometric 712 show zero inches for bolt length but indicate that bolts are installed. No explanation or justification was noted.

3. The washer expansion pin inspection block was marked "not applicable" for "wej-it" anchors on supports H7, H8, and H9 on isometric 712.

This is an infraction.

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

Report Nos. 50-250/80-18 and 50-251/80-18

Licensee: Florida Power & Light Company
9250 West Flagler Stree
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, Florida

Inspector: R. M. Compton — 7/1/80
R. M. Compton — Date Signed

Approved by: A. R. Herdt — 7/1/80
A. R. Herdt, Section Chief, RCES Branch — Date Signed

SUMMARY

Inspection on June 3-6, 1980

Areas Inspected.

This routine, announced inspection involved 27 inspector-hours on site in the areas of IE Bulletin 79-02, "Pipe Support Base Plate Designs Using Concrete Expansion Anchor Bolts", IE Bulletin 79-14, "Seismic Analysis for As-Built Safety-Related Piping Systems" and licensee action on previous inspection findings and licensee identified items.

Results

Of the four areas inspected, no items of noncompliance or deviations were identified in three areas; one item of noncompliance was found in one area (Infraction - Failure to follow concrete expansion anchor inspection procedure - paragraph 3).

DETAILS

1. Persons Contacted

Licensee Employees

*J. K. Hays, Plant Manager - Nuclear
*S. G. Brain, Engineering Project Manager
*F. W. Rothermel, Project Construction Supervisor
*J. F. O'Brien, Project QC Supervisor
*E. F. Baker, Senior QA Engineer
D. L. Osborn, Shift QC Supervisor

Other Organizations

Bechtel Power Corporation (Bechtel)

*A. W. Brown, Plant Design Group Supervisor
*C. W. Andrews, Civil Group Supervisor
*G. P. Nutwell, Assistant Project Engineer - Site Engineering
C. O. Hacker, IEB 79-14 Walkdown Team Leader

NRC Resident Inspector

*R. Vogt-Lowell

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on June 6, 1980 with those persons indicated in Paragraph 1 above. The infraction concerning IEB 79-02 inspections and the minimum necessary corrective actions were discussed at length with the licensee. The inspector's concern about inadequate ripout control by the construction department, Unresolved Item 251/80-18-03, was also discussed.

3. Licensee Action on Previous Inspection Findings

(Closed) Unresolved Item 50-250/80-05-01, IEB 79-02 inspection record inconsistency. Because of discrepancies noted in the expansion anchor inspection record for support 3ARH99 and two other NCR's on anchor bolts the licensee committed to review IEB 79-02 inspection records. This review was to determine if these items were isolated cases or if further inspection/documentation is required. FP&L QC took a randon sample of 50 packages where repairs were required from the approximately 900 Unit 3 packages. The review determined that in three packages improper actions had either been specified by engineering or had been taken by the crafts. These deficiencies were as follows:

a. Replacement of broken bolts with new bolts into sleeve anchors rather than replacement with wedge anchors as specified by engineering.

b. Erroneous reference by engineering to previously issued NCR corrective action that would not result in replacement of anchors as indicated by engineering.

c. A support was relocated approximately 13 inches without proper authorization/documentation.

NCR's have been written to provide resolution to each of these items. The sampling plan selected by FP&L QC considered that three defective samples were acceptable; four defects would require further action.

This inspector randomly selected IEB 79-02 inspection packages for Unit 4 for examination of completeness, accuracy and type and extent of deficiencies noted. The following packages were examined:

a. Isometric IC-268, CVCS system, inspection packages 958 through 969.

b. Isometric IC-361, CVCS system, supports VCH 104 and 105.

c. Isometric IC-13, Main Steam system, support 13A.

d. Isometric FSK-M-712, SG Blowdown system, supports H7, H8 and H9

e. Isometric FSK-M-719, SG sample system, supports H1 and H2.

f. Isometric IC-274, Auxiliary Coolant system, inspection report 025.

g. Isometric IC-249A, Auxiliary Coolant system, inspection reports 123 through 128.

Expansion anchors on the first four isometrics listed above had been inspected/tested during the May-June 1979 Unit 4 outages. Those on the last three isometrics had been inspected/tested during the current Unit 4 outage. The following discrepancies were noted during the documentation review:

a. Isometric FSK-M-719 developed during the IEB 79-14 program shows seven supports that are installed with expansion anchors. Two of these are multi-pipe supports and their anchors were tested and the documentation filed with other isometrics. However, only two of the remaining five supports had anchor inspection reports on file. Supports SGB-719-001, 002 and 007 do not appear to have been inspected/tested. In addition, the QC HOLD point for relocation of one support that had been moved had not been signed off.

b. Expansion anchors in supports 4VCH-65 and 4VCH-67 on isometric IC-268 were not inspected/tested; apparently due to confusion by engineering as to the type of support installed.

c. On the inspection records for three supports on isometric FSK-M-712 the "wej-it" washer and expansion pin inspection block was marked "not applicable", although "wej-it" type anchors are installed. The lengths of one bolt each on two supports were shown as zero inches although bolts are installed and no explanation or justification was provided. In addition, the engineering evaluation of these supports, "acceptable", included a note "no uplift loads". However, the supports are actually vertical-lateral seismic restraints (as designed and installed) which would certainly indicate that there are uplift loads on these anchors.

Because of these failures to follow the expansion anchor inspection procedures, Quality Instruction QI-10.24, this Unresolved Item is being upgraded to a noncompliance. This noncompliance will be identified as an infraction, 251/80-18-01, Failure to follow inspection procedure for IEB 79-02.

4. Unresolved Items

Unresolved items are matters about which more information is required to determine whether they are acceptable or may involve noncompliance or deviations. New unresolved items identified during this inspection are discussed in paragraph 7.

5. Licensee Identified Items

(Open) Item 250/80-18-01 and 251/80-18-02: Overstress in RTD Bypass Loop Piping. On May 6, 1980 the licensee reported that calculations performed for IE Bulletin 79-14 indicated an overstress condition in the 1 inch diameter primary system RTD manifold piping (three lines per unit) under design seismic loading. The inspector examined Plant Change/Modification reports 80-66 and 80-67, with change requests 1, which included Design Verification Reports. For Unit 3 the required changes included four additional snubbers, two new supports and one spring support adjustment. For Unit 4 two new supports and four modifications are required. These changes are based on preliminary calculations using reduced ASME Section III Code Case allowables. Final analysis may indicate further changes.

The required changes are complete for Unit 3 and are in progress on Unit 4. The inspector reviewed the applicable Process Sheets for both units, Bechtel correspondence with FP&L and the Activity Inspection Reports concerning new snubber H-420A-01 on Unit 3. These reports included weld inspections, torquing of expansion anchors, Inspection Checklist for Expansion Anchors and a General Inspection Report for the surveillance of support installation. These items will remain open pending final analysis and completion of work on Unit 4.

No deviations or items of noncompliance were identified.

6. (Open) IE Bulletin 79-02, "Pipe Support Base Plate Designs Using Concrete Expansion Anchor Bolts", Units 3 and 4

Paragraph 3 herein details inspection efforts related to IE Bulletin 79-02. The inspector also requested a report of the current status of the expansion anchor inspection program for both units and a schedule of completion of work. This was requested due to the large number of additions and changes in scope in this inspection program and the fact that a number of common supports can not be inspected until concident shutdown of both units. The licensee agreed to provide this information.

7. (Open) IE Bulletin 79-14, "Seismic Analysis for As-Built Safety-Related Piping Systems", Units 3 and 4

All initial system walkdowns are complete for both units. The Bechtel program for verification of materials of construction was discussed with the involved personnel. Procedures are being developed for this work to research the available FP&L records for comparison with information shown on the isometrics used for analysis. Per the Bechtel design engineer, conservative assumptions are being used in the analysis; for example where seamless or seam welded pipe could have been used, the lower allowables for the welded pipe are used.

FP&L QA audit QAO-CPL-80-05-011 dated May 8, 1980 was examined. This audit included a review of training, inspection data sheets, field verification of selected isometrics and observation of inspection teams. No deficiencies were recorded. The following portions of safety-related piping systems in the Unit 4 containment were walked down to compare the actual as-built conditions to design drawings and site walkdown inspection packages. Supports and restraints listed were inspected as much as possible (due to access and insulation) to detail drawings.

a. Isometric IC-264, CVC system, supports VCH-45 through VCH-49, Valves RV-4-706 and RV-4-382.

b. Isomtric IC-261A, Safety Injection system, supports 4-SIH-74 and S444, Penetration # 11.

c. Isometric FSK-M-719A, Steam Generator Sample system, supports SGB-1-719-001 through 007.

d. Isometric FSK-M-712, Steam Generator Blowdown system, supports SR-418 and 420, penetration # 24.

No significant discrepancies were noted. However, during the walkdown the inspector noted on an adjacent line that the mounting bolts had been removed from support H7 on FSK-M-762. Although this support had been satisfactorily inspected during this outage by both IEB 79-02 and IEB 79-14 inspection teams, it could not immediately be determined by whom or why this support had been disassembled. A nonconformance report was issued against this support to provide for restoration and determination of the cause of the

condition. Ripout control was discussed with the licensee. It was not apparent from these discussions that the construction department had procedures or requirements that would identify, document and provide for reinspection of existing plant equipment, supports, etc., that required removal or alternation to permit performance of other work. Typical Plant Change/ Modifications and Process Sheets reviewed did not provide sufficient detail to achieve this control. The Construction Department has responsibility for many major work efforts during plant outages. This inspector noted that the ripout control used by construction department on an operating (licensed) plant should be as stringent as that exercised by the Operations Department maintenance force. Because there was insufficient time to determine the adequacy of site procedures and to determine the cause of the observed nonfunctional pipe support these questions will be identified as Unresolved Item 251/80-18-03. The licensee agreed to examine this area for adequacy.

No deviations or items of noncompliance were identified.

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

In Reply Refer To:
RII:JRW
50-250/80-17
50-251/80-15

OCT 28 1980

Florida Power and Light Company
ATTN: R. E. Uhrig, Vice President
Advanced Systems and Technology
P. O. Box 529100
Miami, FL 33152

Gentlemen:

Thank you for your letter of September 23, 1980, informing us of steps you have taken to correct the items of noncompliance and significant appraisal findings concerning activities under NRC Operating License Nos. DPR-31 and DPR-41 brought to your attention in our letter of August 28, 1980. We will examine your corrective actions and plans during subsequent inspections.

Based upon a telephone conversation between A. F. Gibson, Chief, Radiation Support Section, and P. W. Hughes of your staff on October 24, 1980, it is our understanding that the electric vaults are posted "Caution-Radiation Area" and not "Caution Radioactive Area".

We appreciate your cooperation with us.

Sincerely,

for J. Philip Stohr, Chief
Fuel Facility and Materials
Safety Branch

cc: H. E. Yaeger, Plant Manager

9 OCT 6 AM : 03

FLORIDA POWER & LIGHT COMPANY

September 23, 1980
L-80-316

Mr. James P. O'Reilly, Director, Region II
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

Re: RII:RZ
50-250/80-17
50-251/80-15

orida Power & Light Company has reviewed the subject inspection report and a response is attached.

There is no proprietary information in the report.

Very truly yours,

J. A. De Mastry
on

bert E. Uhrig
ice President
ivanced Systems & Technology

U/PLP/md

achment

Mr. Harold F. Reis, Esquire

RESPONSE TO USNRC INSPECTION REPORT 80-17 AND 80-15

APPENDIX A

FINDING A:

Routine radiation and contamination surveys were not being conducted outside the Radiation Controlled Area (RCA). As a result, the licensee was unaware that the South East sector of the plant grounds was contaminated due to steam generator explosive tube plugging operations in January coupled with inversion type meterological conditions existing at that time. In addition, electrical vaults outside the RCA became contaminated due to problems with the "A" CVCS holdup tank. Adequate surveys by the licensee could have identified and solved these problems before the inspectors found them. (Section 7) In addition, the failure to perform adequate surveys directly contributed to the item of noncompliance (Item B) listed in Appendix B.

RESPONSE:

We have posted and labeled these areas with signs stating "Caution Radioactive Material". Surveys outside the RCA were completed by May 13, 1980.

These surveys will be continued on a quarterly basis.

FINDING B:

The direction of ventilation flow in the Auxiliary Building and Radwaste Building in some cases flows from areas of high contamination to areas of lower contamination. The inspectors found a flow of air coming from the decay heat pits and equipment decontamination room into the hallways of the Auxiliary Building. Over the years the ventilation system has been modified, but the entire system has not been rebalanced. The ventilation systems in the Auxiliary Building and the Radwaste Building need to be balanced to assure proper air flow and thereby reduce the possibility of the inadvertent spread of contamination.

RESPONSE:

A ventilation system test is being prepared to address the conditions noted in the finding. Upon completion of the test, any modifications necessary to correct imbalances in the air flow will be made.

FINDING C:

The normal containment building exhaust system was not adequately maintained. The change-out of the roughing filters was not covered by procedures and actual field inspection revealed the filters were overloaded with dust, to such an extent that the filter medium was separated from its frame in more than 50% of the filters. The filters need to be changed and maintained in an acceptable condition. (Section 7.a and 8.b) The inadequate maintenance of the roughing filters directly contributed to the contamination found in the South East sector of the plant, as discussed in Item A above.

APPENDIX A (cont'd)

RESPONSE:

We have determined that it is necessary that a preventative maintenance program be established to inspect and change as appropriate the filters on a periodic basis. This program is part of a revision to the Plant's preventative maintenance program which is scheduled for implementation on January 1, 1981. A portion of the filters identified in the report have been replaced. The remaining filters will be changed on receipt of sufficient filter material, which is expected shortly.

FINDING D:

An adequate radiological engineering group or ALARA group does not exist. For example, an adequate radiological engineering evaluation of the steam generator explosive plugging operation was not performed. Alternate means of limiting the spread of contamination due to explosive plugging are available and are commonly used, e.g. expandable bags, mechanical plugs, and HEPA filters. Had these alternatives been evaluated and used as appropriate prior to explosive plugging operations back in January, 1980, many of the problems identified in this report would not have occurred. A radiological engineering group or an ALARA group should be formed to evaluate proposed problems and plan action to prevent occurrence of these problems.

RESPONSE:

We have evaluated methods of tube plugging and have decided to use mechanical plugs in the future. We are presently evaluating a steam generator ventilation system in the event that we have to use explosive plugging in the future. Although we presently practice ALARA Program methods in many areas, we realize that a formal documented ALARA Program is essential. This program is being developed with implementation scheduled for 1981.

APPENDIX B

FINDING A:

As required by 10 CFR 20.105.b(1), "no licensee shall possess, use or transfer licensed material in such a manner as to create in any unrestricted area . . . radiation levels which, if an individual were continuously present in the area, could result in his receiving a dose in excess of two millirems in any one hour . . ."

Contrary to the above on May 8, 1980, the radiation level on the readily accessible radwaste discharge piping in the unrestricted area was at 3.5 millirem/hr for at least one hour.

RESPONSE:

As corrective action, the piping in the finding has been labeled with signs stating "Caution Radioactive Material" and area surveys were conducted. In order to prevent recurrence, these surveys will be continued on a quarterly basis.
Full compliance was achieved on May 8, 1980.

FINDING B:

As required by 10 CFR 20.201 (b) "Each licensee shall make or cause to be made such surveys as may be necessary for him to comply with the regulations in this part".

1. Contrary to the above on May 8, 1980, surveys were not performed to assure compliance with 10 CFR 20.207 (b) in that licensed material was undetected and thus unattended and uncontrolled in the South East sector of the backyard beyond the protected area fence.

2. Contrary to the above on May 8, 1980, surveys were not performed to assure compliance with 10 CFR 20.105.b(1) in that licensed material was found in electrical vaults outside the restricted area and radiation dose rates in the lower portions of the vaults were 2.5 millirem/hr for at least one hour.

RESPONSE:

Part (1):

As corrective action, the area in the South East sector of the backyard beyond the protected area was posted with signs stating "Caution Radioactive Material", and plans were formulated to remove the contaminated dirt. This removal of the dirt commenced on May 17, 1980, and as of this date approximately 75% of material has been drummed and removed. In order to prevent recurrence we will begin conducting quarterly surveys of these areas.

Full compliance was achieved by May 16, 1980.

APPENDIX B (cont'd)

Part (2):

As corrective action, the electrical vaults were posted with signs stating "Caution Radioactive Area" and area surveys were conducted. These areas are at present still posted, and decontamination techniques are being studied to find methods to reduce the contamination levels below those required by 10 CFR 20.105.b(1). In order to prevent recurrence of this finding, the area surveys will be continued on a quarterly basis.

Full compliance was achieved by May 8, 1980.

FINDING C:

As required by 10 CFR 20.203(f)(1) "each container of licensed material shall bear a durable, clearly visible label identifying the radioactive contents . ."

Contrary to the above on May 8, 1980, an unmarked drawer in the chemistry lab had numerous reactor coolant sludge samples which contained greater than Appendix C quantities of radioactive material. One sample had a contact reading of approximately 200 millirem/hour.

RESPONSE:

As corrective action, the drawer in the chemistry lab was labeled, "Caution Radioactive Materials". In order to prevent recurrence, the entrance door to the chemistry lab has also been posted with a sign stating "Caution Radioactive Material".

Full compliance was achieved by May 8, 1980.

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

AUG 28 1980

In Reply Refer To:
RII:RZ
50-250/80-17
50-251/80-15

Florida Power and Light Company
ATTN: R. E. Uhrig, Vice President
Advanced Systems and Technology
Post Office Box 529100
Miami, FL 33152

Gentlemen:

Subject: Health Physics Appraisal

During the period of May 5-16, 1980, the NRC conducted a special appraisal of the health physics program at the Turkey Point Units 3 and 4 Nuclear Power Station. This appraisal was performed in lieu of certain routine inspections normally conducted in the area of health physics. Areas examined during this appraisal are described in the enclosed report (50-250/80-17 and 50-251/80-15). Within these areas, the appraisal team reviewed selected procedures and representative records, observed work practices, and interviewed personnel. It is recommended that you carefully review the findings of this report for consideration in improving your health physics program.

The appraisal conducted at the Turkey Point facility was part of the NRC's general program to strengthen the health physics program at nuclear power plants. As a first step in this effort, the Office of Inspection and Enforcement is conducting these special appraisals of the health physics programs at all operating power reactor sites. (These appraisals were previously identified to you in a letter dated January 22, 1980, from Mr. Victor Stello, Jr., Director, NRC Office of Inspection and Enforcement.) One of the objectives of the health physics appraisals is to evaluate the overall adequacy and effectiveness of the total health physics program at each site and to identify areas of weakness that need to be strengthened. We also intend to use the findings from these appraisals as a basis for improving NRC requirements and guidance. Consequently, our appraisal encompassed certain areas which may not be explicitly addressed by current NRC requirements. The next step that is planned in this overall effort will be the imposition of a requirement by the Office of Nuclear Reactor Regulation (NRR) that all licensees develop, submit to the NRC for approval, and implement a Radiation Protection Plan. Each licensee will be expected to include in the Radiation Protection Plan sufficient measures to provide lasting corrective action for any significant weaknesses identified during the special appraisals of the current health physics program. Guidance for the development of this plan will incorporate pertinent findings from the special appraisals and will be issued by NRR in the fall of this year.

The findings of this appraisal at the Turkey Point facility indicate that, although your overall health physics program is adequate for present operations, several significant weaknesses exist. These include the following:

a. routine radiation and contamination surveys were not being conducted outside the Radiation Control Area;

b. the direction of ventilation flow in the Auxiliary Building and Radwaste Building in some cases flows from areas of high contamination to areas of lower contamination;

c. the normal containment building exhaust system filters were not adequately maintained;

d. an adequate radiological engineering group or ALARA group does not exist.

These findings are discussed in more detail in Appendix A, "Notice of Significant Appraisal Findings". We recognize that regulatory requirements pertaining to the significant weaknesses identified in Appendix A may not currently exist. However, to assist us in determining whether adequate protection will be provided for the health and safety of workers and the public, you are requested to submit a written statement within twenty (20) days of your receipt of this letter describing your corrective action for the significant weakness identified in Appendix A, including: (1) steps which have been taken; (2) steps which will be taken; and (3) a schedule for completion of action. This request is made pursuant to Section 50.54(f) of Part 50, Title 10, Code of Federal Regulations.

The findings of this appraisal also indicate certain activities which apparently were not conducted in full compliance with NRC requirements as set forth in the Notice of Violation enclosed herewith as Appendix B. The items of noncompliance in Appendix B have been categorized into the levels of severity as described in our Criteria For Enforcement Action dated December 1, 1974. Section 2.201 of Part 2, Title 10, Code of Federal Regulations, requires you to submit to this office, within twenty (20) days of your receipt of this notice, a written statement or explanation in reply including: (1) corrective steps which have been taken by you and the results achieved; (2) corrective steps which will be taken to avoid further items of noncompliance; and (3) the date when full compliance will be achieved.

In accordance with Section 2.790 of the NRC's "Rules of Practice", Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosures will be placed in the NRC's Public Document Room. If this material contains any information that you believe to be proprietary, it is necessary that you make a written application within 20 days to this office to withhold such information from public disclosure. Any such application must be accompanied by an affidavit executed by the owner of the information, which identifies the document or part sought to be withheld, and which contains a statement of reasons which addresses with specificity the items which will be considered by the Commission as listed in Subparagraph (b)(4) of Section 2.790. The information sought to be withheld shall be incorporated as far as possible into a separate part of the affidavit. If we do not hear from you in this regard within the specified period, this letter and the enclosures will be placed in the Public Document Room.

AUG 2 8 1980

Should you have any questions concerning this inspection, we will be pleased to discuss them with you.

Sincerely,

James P. O'Reilly
Director

Enclosures:
1. Appendix A, Notice of Significant Appraisal Findings
2. Appendix B, Notice of Violation
3. Office of Inspection and Enforcement
   Inspection Report Nos. 50-250/80-17
   and 50-251/80-15

cc w/encl:
H. E. Yaeger, Plant Manager

AUG 2 8 1980

APPENDIX A

NOTICE OF SIGNIFICANT APPRAISAL FINDINGS

Florida Power and Light Company
Turkey Point 3 and 4

License Nos. DPR-31
DPR-41

Based on the Health Physics Appraisal conducted May 5-16, 1980, the following items appear to require corrective actions. (Section references are to the Details portion of the enclosed Inspection Report.)

A. Routine radiation and contamination surveys were not being conducted outside the Radiation Control Area (RCA). As a result, the licensee was unaware that the South East sector of the plant grounds was contaminated due to steam generator explosive tube plugging operations in January coupled with inversion type meterological conditions existing at that time. In addition, electrical vaults outside the RCA became contaminated due to problems with the "A" CVCS holdup tank. Adequate surveys by the licensee could have identified and solved these problems before the inspectors found them. (Section 7). In addition, the failure to perform adequate surveys directly contributed to the item of noncompliance (Item B) listed in Appendix B.

B. The direction of ventilation flow in the Auxiliary Building and Radwaste Building in some cases flows from areas of high contamination to areas of lower contamination. The inspectors found a flow of air coming from the decay heat pits and equipment decontamination room into the hallways of the Auxiliary Building. Over the years the ventilation system has been modified, but the entire system has not been rebalanced. The ventilation systems in the Auxiliary Building and the Radwaste Building need to be balanced to assure proper air flow and thereby reduce the possibility of the inadvertent spread of contamination. (Section 8.b)

C. The normal containment building exhaust system was not adequately maintained. The change-out of the roughing filters was not covered by procedures and actual field inspection revealed the filters were overloaded with dust, to such an extent that the filter medium was separated from its frame in more than 50% of the filters. The filters need to be changed and maintained in an acceptable condition. (Section 7.a and 8.b). The inadequate maintenance of the roughing filters directly contributed to the contamination found in the South East sector of the plant, as discussed in Item A above.

D. An adequate radiological engineering group or ALARA group does not exist. For example, an adequate radiological engineering evaluation of the steam generator explosive plugging operation was not performed. Alternate means of limiting the spread of contamination due to explosive plugging are available and are commonly used, e.g. expandable bags, mechanical plugs, and HEPA filters. Had these alternatives been evaluated and used as appropriate prior to explosive plugging operations back in January, 1980 many of

the problems identified in this report would not have occurred. A radiological engineering group or an ALARA group should be formed to evaluate proposed work activities and other situations which present potential radiological problems and plan action to prevent occurrence of these problems. (Sections 4.e, 7.a, 7.b, 7.c, 7.d and 8.b, 8.c and 9.a)

AUG 2 8 1980

APPENDIX B
NOTICE OF VIOLATION

Florida Power and Light Company
Turkey Point 3 and 4

License Nos. DPR-31
DPR-41

Based on the NRC inspection of May 5-16, 1980, certain of your activities were apparently not conducted in full compliance with NRC requirements as indicated below. These items have been categorized as described in correspondence to you dated December 31, 1974.

A. As required by 10 CFR 20.105.b(1), "no licensee shall possess, use or transfer licensed material in such a manner as to create in any unrestricted area ... radiation levels which, if an individual were continuously present in the area, could result in his receiving a dose in excess of two millirems in any one hour..."

Contrary to the above on May 8, 1980, the radiation level on the readily accessible radwaste discharge piping in the unrestricted area was at 3.5 millirem/hr for at least one hour.

This is an infraction.

B. As required by 10 CFR 20.201.(b) "Each licensee shall make or cause to be made such surveys as may be necessary for him to comply with the regulations in this part."

1. Contrary to the above on May 8, 1980, surveys were not performed to assure compliance with 10 CFR 20.207(b) in that licensed material was undetected and thus unattended and uncontrolled in the South East sector of the back yard beyond the protected area fence.

2. Contrary to the above, on May 8, 1980, surveys were not performed to assure compliance with 10 CFR 20.105.b(1) in that licensed material was found in electrical vaults outside the restricted area and radiation dose rates in the lower portions of the vaults were 2.5 millirem/hr for at least one hour.

This is an infraction.

C. As required by 10 CFR 20.203(f)(1) "each container of licensed material shall bear a durable, clearly visible label identifying the radioactive contents ...."

Contrary to the above on May 8, 1980, an unmarked drawer in the chemistry lab had numerous, unmarked reactor coolant sludge samples which contained greater than Appendix C quantities of radioactive material. One sample had a contact reading of approximately 200 millirem/hour.

This is a deficiency.

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

Report Nos. 50-250/80-17 and 50-251/80-15

Licensee: Florida Power and Light Company
Miami, FL 33101

Facility Name: Turkey Point Units 3 and 4

Docket Nos. 50-250 and 50-251

License Nos. DPR-31 and DPR-41

Inspection at: Homestead, Florida

Inspectors: R. W. Zavadoski — August 1, 1980
R. W. Zavadoski, Team Leader, Radiation Specialist — Date Signed

R. W. Zavadoski for — August 1, 1980
J. R. Wray, Radiation Specialist — Date Signed

Accompanying Personnel: L. Munson, Battelle Northwest
R. Will, Consultant to Battelle Northwest

Approved by: A. F. Gibson — 8/5/80
A. F. Gibson, Section Chief — Date Signed
Fuel Facility and Materials Safety Branch

SUMMARY

Inspection on May 5-16, 1980

Areas Inspected

This special announced inspection involved 469 inspector-hours onsite in the area of health physics including organization, qualifications, training procedures, ALARA programs, external exposure control, personnel dosimeter program, internal dosimetry, respiratory protection, medical emergencies, instrumentation, surveillance and access control, radwaste control, facilities and equipment, re-entry, and in-plant systems.

Results

Of the 16 areas inspected, no items of noncompliance or deviations were identified in 13 areas; 3 items of noncompliance were found in 3 areas.

DETAILS

1. Persons Contacted

Licensee Employees

*C. O. Woody, General Office
*H. E. Yaeger, Site Manager (PTP)
*Pat Hughes, Health Physics Supervisor (PTP)
*J. K. Hays, Plant Manager - Nuclear
*John S. Wade, Jr., Chemistry Supervisor (PTP)
*Edward R. Lapierre, Radiochemist (PTP)
*S. M. Feith, Supervisor QA Operations
*J. E. Moore, Operations Superintendent - Nuclear
*J. Kanouse, Systems & Programming G. O.
*M. Plummer, Systems & Programming G. O.
*J. L. Danek, Health Physics
*T. S. Peck, Health Physics
*R. G. Mende, Reactor Engineer
*T. D. Burkett, Plant Manager - Fossil
*P. J. White, Maintenance Superintendent
*V. A. Kaminskas, Reactor Supervisor
*J. R. Bates, Health Physics
*W. A. Klein, Technical Department
*H. F. Story, Health Physics (Corporate)
*F. Marder, Health Physics
*R. P. McAllister, Site Coordinator for IRM
*D. W. Jones, QC Supervisor
*J. E. Vessely, Director - QA
*T. Essinger, Assistant Manager - QA Operations
*G. D. Whittier, Nuclear Licensing G. O.
*D. L. Hartsfield, PGM
*John E. Powell, Flo. Construction Manager
*R. A. Kaminsky, Nuclear Licensing G. O.

Other licensee employees contacted included 37 construction craftsmen, 48 technicians, 6 operators, 18 mechanics, 12 security force members, and 8 office personnel.

*Attended exit interview.

2. Exit Interview

The inspection scope and findings were summarized on May 16, 1980 with those persons indicated in Paragraph 1 above. The inspectors reviewed and examined all aspects of the health physics program at the facility. This examination included organization, staffing, audits, procedures, training, retraining, exposure control, instruments, access control, ALARA, radwaste surveys and facilities. The inspectors stated that the areas of radiological surveys outside the Radiation Control Area, ALARA review of steam generator

tube plugging operation, procedures for change out of filters on the containment building exhaust and the ventilation flow distribution in the auxiliary building should be reevaluated by the licensee; the licensee agreed to consider a reevaluation. At the exit interview the inspectors also identified items of noncompliance which included: (1) failure to post a radioactive materials area (discussed in paragraph 6.h); (2) unacceptable radiation levels in the unrestricted area (discussed in paragraph 7.c); and (3) failure to perform adequate surveys (discussed in paragraph 7.a, 7.c and 8.c). The plant manager acknowledged the items of noncompliance.

3. List of Unresolved Items, Noncompliance and Inspector Follow-up Items

The following is a summary tabulation of all the unresolved items, noncompliance and inspector follow-up items identified throughout this report. Unresolved items are matters about which more information is required to determine whether they are acceptable or may involve noncompliance or deviations. New unresolved items identified during this inspection are discussed in Section 6. Inspector follow-up items (IFI) are matters which the NRC desires to look into again and which will be examined in future inspections.

(Open) IFI 950-250/80-17-01; 50-251/80-15-01) Reporting recommendations for health physics supervisor (paragraph 4.a)

(Open) IFI (50-250/80-17-02; 50-251/80-15-02) Establishing a formal group with the sole responsibility of ALARA (paragraph 4.c and 9.a)

(Open) IFI (50-250/80-17-03; 50-251/80-15-03) Independent measurements by quality assurance auditors (paragraph 4.f)

(Open) IFI (50-250/80-17-04; 50-251/80-15-04) Organizing and documenting the Health Physics retraining program (paragraph 5.b)

(Open) IFI (50-250/80-17-05; 50-251/80-15-05) Formal listing of qualifications for each health physics supervisor (paragraph 5.d)

(Open) IFI (50-250/80-17-06; 50-251/80-15-06) Preparation of job description for health physics personnel (paragraph 5.e)

(Open) IFI (50-250/80-17-07; 50-251/80-15-07) Closer liaison between the corporate health physicist and the plant (paragraph 5.g)

(Open) IFI (50-250/80-17-08; 50-251/80-15-08) Review of the contents of the training programs (paragraph 5.h)

(Open) IFI (50-250/80-17-09; 50-251/80-15-09) Critiques of nonroutine tasks (paragraph 5.i)

(Open) Unresolved Item (50-250/80-17-10; 50-251/80-15-10) Records of Grade D quality air for supplied air system (paragraph 6.b)

(Open) IFI (50-250/80-17-11; 50-251/80-15-11) Records System for Bullard Type Air Filters (paragraph 6.b)

(Open) Unresolved Item (50-250/80-17-12; 50-251/80-15-12) Air certification for SCBA's (paragraph 6.c)

(Open) IFI (50-250/80-17-13; 50-251/80-15-13) Inspection of emergency supplies (paragraph 6.c)

(Open) IFI (50-250/80-17-14; 50-251/80-15-14) Increasing the computer capabilities for dose control (paragraph 6.d and 9.b)

(Open) IFI (50-250/80-17-15; 50-251/80-15-15) Proper wearing of dosimetry (paragraph 6.e)

(Open) IFI (50-250/80-17-16; 50-251/80-15-16) Performance audits to validate the calibration and performance of TLD systems (paragraph 6.f)

(Open) IFI (50-250/80-17-17; 50-251/80-15-17) Acquisition of a GeLi system for the health physics department (paragraph 6.g)

(Open) Infraction (50-250/80-17-18; 50-251/80-15-18) Failure to label radioactive material containers (paragraph 6.h)

(Open) IFI (50-250/80-17-19; 50-251/80-15-19) General retraining of plant staff for radiation levels (paragraph 6.h)

(Open) IFI (50-250/80-17-20; 50-251/80-15-20) More sensitive instruments for surveys (paragraph 6.i)

(Open) IFI (50-250/80-17-21; 50-251/80-15-21) Laundry survey procedures (paragraph 6.l)

(Open) Infraction (50-250/80-17-22; 50-251/80-15-22) Failure to survey (paragraph 7.a, 7.c and 8.c)

(Open) Infraction (50-250/80-17-23; 50-251/80-15-22) Failure to control radiation levels in an unrestricted area in accordance with 10 CFR 201.105.b.1 (paragraph 7.c)

(Open) IFI (50-250/80-17-24; 50-215/80-15-24) Development of procedures for surveys of areas outside the RCA (paragraph 7.d)

(Open) IFI (50-250/80-17-25; 50-251/80-15-25) Development of procedures for change out of the containment exhaust filters (paragraph 7.d)

(Open) IFI (50-250/80-17-26; 50-251/80-15-26) Methyl iodine testing for charcoal samples from emergency ventilation systems (paragraph 8.b)

(Open) IFI (50-250/80-17-27; 50-251/80-15-27) Evaluation of ventilation flow in the auxiliary building (paragraph 8.b)

(Open) IFI (50-250/80-17-28; 50-251/80-15-28) Hard piping of portable demin system (paragraph 8.c)

(Open) IFI (50-250/80-17-29; 50-251/80-15-29) Procedure for dewatering portable demins (paragraph 8.c)

(Open) IFI (50-250/80-17-30; 50-251/80-15-30) Evaluation of the need for air sampling by compactor (paragraph 8.d).

(Open) IFI (50-250/80-17-31; 50-251/80-15-31) Activity estimation for new compactor (paragraph 8.e)

(Open) IFI (50-250/80-17-32; 50-251/80-15-32) Determination of Groups I and II (paragraph 8.e)

(Open) IFI (50-250/80-17-33; 50-251/80-15-33) Evaluation of present supply of portable instrumentation (paragraph 10.a)

(Open) IFI (50-250/80-17-34; 50-251/80-15-34) Reverification of high calibration point on instrumentation calibrator (paragraph 10.c)

(Open) IFI (50-250/80-17-35; 50-251/80-15-35) Records for air sampler flow calibration (paragraph 10.c)

(Open) IFI (50-250/80-17-36; 50-251/80-15-36) Setting of frisker alarm setpoints (paragraph 10.d)

(Open) IFI (50-250/80-17-37; 50-251/80-15-37) Functional checks of instrumentation (paragraph 10.e)

(Open) IFI (50-250/80-17-38; 50-251/80-15-38) Changes to procedures (paragraph 11.a)

(Closed) Unresolved (50-250/80-11-01; 50-251/80-11-01) Dose Rate Limit for Open Exclusive use Vehicles The inspector reviewed a letter dated February 16, 1979 from the Department of Transportation confirming that the only requirement on dose rate from an open exclusive use vehicle is that it not exceed 10 mr/hour at 2 meters from the vehicle. The inspector had no further questions.

4. Radiation Protection Organization and Management

a. The inspectors reviewed the organizational structure of the plant. Figure 1 shows the overall plant organizations and Figure 2 shows the health physics organization. The organizational interrelationship of the plant with the corporate health physics office was not reviewed during the appraisal as it was already addressed in the St. Lucie Health Physics Appraisal (Report No. 50-335/80-06). At the Turkey Point facility there are two plant managers, one for the fossil units and one for the nuclear units, both of whom report to the site manager.

The nuclear plant manager has a maintenance superintendent, an operations superintendent, a technical department supervisor and a quality control supervisor reporting to him. The health physics supervisor, along with the reactor engineering supervisor, chemistry supervisor, training supervisor and waste handling supervisor, report to the plant manager, nuclear, through the operations superintendent, nuclear. The inspectors pointed out that Regulatory Guide 8.8, March 1977, Revision 2, Section C.1.b.c., recommends that "The Radiation Protection Manager (RMP) (onsite) has a safety-related function and responsibility to both employees and management that can be best fulfilled if the individual is independent of station divisions, such as operations, maintenance or technical support, whose prime responsibility is continity or improvement of station operability." No conflicts due to health physics reporting through operations were ascertained by the inspectors; however, this may be strongly dependent on the people involved. Therefore, the inspectors recommend a reporting chain of the health physics supervisor directly to the plant manager (Inspector Follow-up Item 50-250/80-17-01; 50-251/80-15-01). The inspectors also noted that the chemistry and health physics functions were split at the facility, thereby not diluting the health physics effort. Licensee's representatives informed the inspectors that the primary responsibility for radioactive waste management was in the process of being turned over to the health physics department. The inspectors commented that such a realignment appeared to be prudent.

b. The organization of the health physics department is shown in Figure 2. The entire department presently consists of 32 permanent employees. The health physics operations supervisor's responsibilities is to ensure that the day-to-day operations in the plant are adequately covered. He is also responsible for ensuring that required surveys are taken, instruments are calibrated, and respirators are cleaned and repaired. In addition to all the health physics shift supervisors, a radwaste supervisor reports directly to the operations health physics supervisor. In part, the present function of the radwaste supervisor, is to ensure that solid waste shipments are made in accordance with regulations. The direct responsibility for liquid and gaseous radioactive wastes lies in the chemistry department. The health physics administrative supervisor is responsible for ensuring that all required records are maintained, that dosimetry records are reviewed and adequate, that respirator and employee training are administered and adequate. In addition, he is responsibile for the development of computer programs, which aid the department in gathering, distributing and evaluating raw data necessary for efficient routine daily operations. The staffing and delegation of authority within the health physics department appeared adequate except as detailed below.

c. The inspectors noted that there was no formal structure within the health physics organization which had overall responsibility for ALARA (i.e., maintaining plant personnel radiation exposures as low as reasonably achievable). From discussions with the plant manager, the health physics staff and other plant personnel, and through direct observation, the inspectors concluded that many elements of an ALARA

program were present and functional. For example, the steam generator mock-up located in the radwaste building represented a significant commitment to ALARA. Not only did the mock-up represent realistic dimensions of scale, height (platform included) and sturdiness (it is fabricated of steel), but also included an expensive extra set of tools and jigs dedicated solely to training. The portable air filtration units (approximately 1,000 cfm) for steam generator ventilation also represents another major licensee commitment to ALARA. However, the problems discussed in Section 7 of this report i.e., explosive steam generator tube plugging which led to contamination of areas outside the Radiation Control Area (RCA) and collapse of the CVCS Holdup Tank which led to the contamination of several electrical vaults outside the RCA, potentially could have been avoided if a radiological engineering group had been looking out for such problems. Therefore, based on their judgement and observation the inspectors recommend the establishment of an ALARA coordination group (or radiological engineering group) with sole responsibility for implementating ALARA programs and unencumbered by other responsibilities (Inspector Follow-up Item 50-250/80-17-02; 50-251/80-15-02). Additional findings and comments on the ALARA program at Turkey Point are discussed in detail in the ALARA section of this report.

d. Communications at the facility seemed adequate within the plant health physics staff. For example, a direct link between the health physics shift supervisor at the health physics office and the health physics technician at a steam generator control point inside containment was maintained anytime platform work was in progress. It was also apparent to the inspectors that considerable health physics preparation had been made for the outage. The inspectors reviewed the health physics operations log books and witnessed several shift changeovers and observed that pertinent information was transferred from shift to shift. The inspectors also noted that the health physics supervisor was present for many of the shift turnovers to extract difficulties which required resolution beyond the health physics department.

e. The inspectors noted that health physics coverage is provided twenty four hours a day, seven days a week for both normal operations and outages. The permanent staff is augmented by health physics rental technicians (commonly referred to as rent-a-techs) during outage situations. For the present outage, the plant employed some 25 senior rent-a-techs and an additional 15 to 20 junior or decon technicians. The inspectors found the staffing for the outage and the supervision of rent-a-techs by permanent plant employees adequate to meet the demands.

f. The health physics program at the site is audited by the corporate quality assurance group. The inspectors reviewed the results and findings of the quality assurance audits for 1979 and 1980. The inspector also discussed the quality assurance health physics audits with the quality assurance auditors and found that the health physics program is continuously being audited. From discussions and review of

reports, the inspectors noted that the depth and degree of attention of quality assurance to the procedural and performance elements of the health physics program were commensurate with an adequate quality assurance function. Quality assurance personnel did not carry health physics type instrumentation during the conduct of their audits. The inspectors stated that their effectiveness could be enhanced if they could make independent measurements (Inspector Follow-up Item 50-250/80-17-03; 50-251/80-15-03). In the professional judgement of the inspectors, the scope and depth of the quality assurance audit program of health physics activities at Turkey Point is adequate.

g. The inspectors found the organization at Turkey Point to be acceptable. Based on the inspector's professional judgement, improvements to the organization of the health physics program could be obtained if licensee consideration is given to: (1) changing the reporting chain of the health physics supervisor (paragraph 4.a); (2) establishing a group with the sole responsibility of ALARA (paragraph 4.c); and (3) allowing the quality assurance auditors to make independent measurements (paragraph 4.f).

5. Personnel Selection, Qualification and Training

a. The basic plant personnel selection criteria are those found in ANSI N18.1-1971, "Selection and Training of Nuclear Power Plant Personnel". Health Physics Procedure HP-80, "Qualification of Health Physics Personnel" (dated February 17, 1978) sets forth the further qualifications required at the Turkey Point plant. A "Health Physics Qualification Guide" is utilized and consists of eight sections each specific to a major area of HP concern. Within each section there are specific items which must be discussed with, or demonstrated to, the appropriate level of supervision. The supervisor initials and dates each item as it is successfully completed, and each section is reviewed by the HP Supervisor. Upon completion of the Qualification Guide, a candidate is given a comprehensive oral and written examination. If successful in all respects, the candidate is designated fully qualified to perform all HP duties without supervision. Beyond the qualifications listed, there are those for two related levels---junior and senior technician. The former, in accordance with ANSI 18.1, 45.2 "Technicians", shall have a minimum of two years' working experience. The latter should have four years working experience in accordance with both Plant and contractor requirements. The licensee hires only at the senior technician level for technicians in responsible positions. There is an unwritten, but firmly adhered-to policy at the plant that only candidates whose capabilities are known to a staff member will be hired. As evidenced by the apparent quality and level of expertise of health physics personnel, this policy, and the comprehensive qualification review procedure (HP - 80) are effective in obtaining qualified technicians.

b. The inspectors reviewed the refresher training of health physics personnel. Ten hours of refresher training per year are required.

The inspectors found no documented training plan, no time scheduled, nor recorded evidence of what and how much training any individual has received. There is no offsite training afforded health physics personnel at any level below that of the Corporate, and very occasionally for the Health Physics Supervisor. State-of-the-art information that may have been gained by attendance at Health Physics Society meetings, conferences and seminars does not appear to have been disseminated to plant health physics personnel on any formal basis. In the professional judgement of the inspector the unusual hiring practices and the ability to obtain and maintain quality personnel mitigates the effect of an unorganized retraining program. The inspectors recommended that consideration of a formal and documented refresher and updating training program should be initiated (Inspector Follow-up Item 50-250/80-15-04; 50-251/80-17-04).

c. The inspectors ascertained that the health physics supervisor (HPS) meets the qualifications set forth in paragraph 4.4.4, ANSI 18.1-1971 and Regulatory Guide 1,8 Section C for Radiation Protection Supervisor Manager, and Flordia Power and Light Turkey Point Operations Procedure 11500, Health Physics Manual, 3.3.1.2. The incumbent was employed in plant operations prior to transferring to radiation protection and is well versed in the technical specifications and nuclear operations of the facility. The job description for the HPS position appears to be a brief but adequate listing of the overall duties. It does not indicate lines of authority or delegation of responsbilities. The incumbent is recognized as being a "field" man-personal supervision and observation of HP activities throughout the plant--rather than an office man. The routine office functions commonly associated with an HPS are rested in the Adminstrative Supervisor. In the professional judgement of the inspectors the supervisor and management of the health physics department is adequate.

d. There are two levels of supervision below that of the HPS. The first consists of Operations Supervisor, HP Steam Generator Replacement Project Supervisor, and Administrative Supervisor. Under the Operations Supervisor, there are the Day Shift Supervisor, Peak Shift Supervisor, Mid Shift Supervisor, Fourth Shift Supervisor, Radwaste Supervisor, and the Refueling Operations Coordinator. None of the foregoing is less than a Senior Plant Technician Level. Qualifications for all of the foregoing are those set forth in ANSI 18.1-1971, section 4.5.2, as implemented by HP Procedure HP-80. All the individuals listed above were found to meet the qualifications specified. In the professional judgement of the inspectors, a recommendation was made that the licensee establish a formal list of qualifications for each health physics supervisor and typical senior technician independent of ANSI 18.1-1971 (Inspector Follow-up Item 50-250/80-17-0;5 50-251/80-15-05).

e. The inspectors reviewed job descriptions of specific health physics positions. They do not appear to be consistent in detail, depth or format. Only a few appeared to reflect the actual duties and responsibilities of the incumbent related to specific qualifications for the job in question. For example, the job description for the HP Administrative Supervisor does not reflect the need for the individual to be a qualified HP as the functions described are clerical in nature and no mention is made of his direct supervision over training, bioassay, dosimetry, or his need for technical expertise in the area of review and analysis of exposure data. As another example, a generic job description for HP Shift Supervisor was available, as was one for Fourth Shift Supervisor and the Refueling Coordinator. None of these relate to qualifications and, at best, are brief and vague. A supporting job description for the HP SGRP Supervisor was not available, because the position was newly established. The Operations Supervisor position has been changed, primarily to include radwaste operations, and the description would be nearly that for the plant HP program supervisor. Job descriptions were available and reviewed for those positions shown on Figure 2 as "Biossays", "Red Badge Respirator Training," "Records Clerk, Personnel Dosimetry," and for an "Administration Assistant, Personnel Exposure Records." It was not evident that there was clear separation of the duties of the Records Clerk and the Administration Assistant, Personnel Exposure Records. Based on their judgement the inspectors recommended that the job descriptions for each member of the health physics staff should be prepared in a consistent format and to a depth that adequately describes each persons duties (Inspector Follow-up Item 50-250/80-17-06; 50-251/80-15-06).

f. The qualifications for senior contractor technician level personnel are essentially the same as those for plant personnel as set forth in ANSI 18.1-1971, NRC Reg. Guide 1.8. An entry level technician is also supplied by contractors, i.e., decontamination technician. There are essentially no qualifications for this class. It does, however, provide a means whereby an individual may acquire the two years of experience necessary to qualify as a junior technician. Contract personnel (senior technicians only) are, in addition to the red badge (security and general health physics practices) course and test, given an examination. The cover sheet states "This examination is given to ascertain what can best be described as a general evaluation of your capabilities as a technician" and is the plant counterpart of the Qualification of HP Personnel (HP-80) assessment for plant personnel. The exam is not graded numerically.

The inspectors reviewed the qualifications of a number of contract personnel (primarily junior and senior technicians) and determined that the qualifications met or exceeded the standards. The consistency and familiarity of the HP contractor personnel were verified in the fact that a high percentage (about 50%) of the Contractor HP "rent-a-tech's" request to, and do, return to the plant each year, and that many permanent plant HP personnel have had previous assignments there as contractor technicians. In the opinion of the inspectors, the contract personnel are well qualified.

g. The inspectors reviewed the health physics training program at Turkey Point. All permanently assigned personnel are required to successfully complete a radiation safety training course. Vistors (all personnel who are not Flordia Power and Light Company (FP&L) personnel permanently assigned to Turkey Point) may also receive health physics training, the "Red Badge Course" and be allowed to take the written examination for unescorted entry into the Radiation Control Area (RCA). Vistors with adequate education, training and experience may take the portions of the course pertaining solely to plant procedures and the examination. Health Physics (HP) personnel must complete the qualifications program as set forth in Procedure HP-80, qualification of Health Physics Personnel. Contract HP personnel are given an examination described as "a general evaluation of your capabilities as a technician". Review of the examination indicates that it is fairly comprehensive and is adequate for the purpose intended.

On a routine basis, there are eight training courses in health physics given at the plant. Two of these are based on the classification of the personnel and to which department they are assigned.

1. A "Group A" course is given for employees assigned to operations, nuclear, maintenance, radiochemistry, health physics, quality control, nuclear training, security, electrical, instrument and control, technical, reactor engineering, power plant testing, relay, power plant construction and quality assurance. The course consists of approximately 20 hours of classroom lecture and demonstration and examination.

2. A "Group C" course is given for new employees assigned to any department other than those listed under the Group A class. It consists of 4 hours of classroom lecture on basic health physics. There is no examination.

3. A third course--Refresher Training for Group A personnel is given. It consists of 8 hours of orientation toward the maintenance aspects , covering use of instruments, radiation work permits, respiratory protection, decontamination, entry and exit procedures, exposure and contamination limits, etc. Basic health physics is not reviewed. Returning employees (within two years or less) or those who have completed health physics training at another FP&L facility may be exempt from the basic training at the discretion of the Health Physics Supervisor (HPS). Those who have not been through refresher training for more than 2 years are required to be retrained and/or satisfactorily complete the written refresher examination.

4. The Health Physics (HP) personnel who are permanent employees must be certified by the HPS, based on successful completion of qualifications by permanent HP personnel. This procedure requires that the new person "Must demonstrate adequate knowledge and/or ability consistent with the particular section of the Guide and with his position (i.e., RPM or Shift Supervisor). Each section is initialed and dated by a qualified shift supervisor. Upon completion of each section the individual is given an oral or written examination.

If satisfactory, the HPS will sign off, section by section, and finally designate the individual as fully qualified to perform all health physics duties without supervision.

5. Refresher Training for HP Personnel consists of approximately 10 hours of lecture, demonstration, and practical exercise covering most aspects of health physics.

6. HP Orientation for Contract Personnel consists of two hours of a highly condensed version of the group A course. Apparently, it is assumed that these contract personnel (Westinghouse, Bechtel, ANS, etc.) have adequate training and experience in radiation protection and that orientation to plant specific practicies is sufficient.

7. A Control Center Operator Class in HP is given. The lesson outline for the training indicates that it is a more sophisticated coverage of all the basic elements of the Group A course, and extends to practical exercises and problems involving time, distance and shielding, as well as discussions of selected sections of 10 CFR 19, 20, 55, and 100.

8. The last of the eight scheduled courses is the Emergency Radiation Team Class, consisting of four hours of instruction covering the Emergency Organization, organization and responsibilities of the Emergency Radiation Team, evacuation, equipment, injuries, and includes a workshop in typical emergencies.

In addition, annually the HP and Nuclear Operations departments conduct a cross-training course. HP trains Nuclear Operations in such things as air sampling, surveys, ect., and in turn, Nuclear Operations trains HP in emergency procedures. This is scheduled and there is no documented lesson plan. It appears to be fairly comprehensive "refresher type" training. All permanent plant employees are included in the initial training program, either in a Group A class (individuals who have any potential for exposure or contamination in their job routine) or in a Group C class (typically managers) as appropriate.

Initial training is required of all personnel, plant, contractor and vistor, who are engaged in work of any type at the Unit 3 and 4 site. Retraining is required for all personnel on a biennial basis. The content and duration of the refresher courses are based on the initial training received.

There is no HP Manual requirement that states that the corporate health physicist (CHP) should coordinate seminars for HP no less than annually in the area of current HP practices and policies. In the inspector's opinion, this is one weakness at the plant. Historically, plant personnel have not been afforded the opportunity to attend seminars or conferences offsite. In addition, it appears that CHP has not kept all plant HP personnel abreast of the information which he or his immediate staff gleans from attendance at professional and technical meetings. Over the long term this could result in a deterioration of

HP personnel quality. In essence, it is apparent that closer liaison between the CHP and the plants would be most beneficial (Inspector Follow-up Item 50-250/80-17-07; 50-251/80-17-07). There was no evidence of special training for unique activities. The inspectors was advised that there were no formal post-operations de-briefings or critiques, especially for non-routine jobs nor were there "all staff" discussion periods in which HP activities were discussed on a routine basis. Much of the information is conveyed informally.

h. The training class which was observed was for "steam generator jumpers" and, as such, required a very limited sphere of knowledge. Orientation to other departments (maintenance, operations, ect.) was not observed. Verification of satisfactory completion of training is adequate since the information is furnished in a timely manner on the "Computer Training Base". Site Procedures (Health Physics procedures) are touched upon very lightly in discussions. However, the video tape and practial exercise emphasize the procedures graphically, resulting in adequate instruction.

After observation of the 20-hour steam generator jumper course, the inspector noted the entire subject of instrumentation, capabilities and limitations, purposes and uses, did not receive much attention. It is recognized that the class observed was not for permanent employees and that time restrictions (20 hours for lectures, discussions, video tape, demonstrations, examinations, and respirator training and fitting) do not facilitate in-depth training in any one area of concern. However, the personnel are under close scrutiny at all times by trained health physics technicians and therefore, the training can be considered adequate.

The inspectors recommended that a review and assessment, including a test of results mechanism, be made of the training programs. Preferably the review team should have at least one non-FP&L member with expertise in training methods, the Corporate Health Physicist and in-plant departmental representation (Inspector Follow-up Item 50-250/80-15-08; 50-251/80-17-08).

i. The inspectors noted that while there has been no documented, planned cross-training, the overall capabilities and previous experience of personnel appeared adequate. Depending upon length of time at the plant, about 50% of the HP personnel have served in several different capacities over the years. The routine scheduled tasks and operations appear to be performed with frequency sufficient to maintain competency. As was pointed out above, unusual tasks or situations are not critiqued nor presented as the subject of regularly scheduled staff discussions. It is the inspector's judgement that such critiques or discussions would help to maintain a degree of competency in the area of non-routine tasks (Inspector Follow-up Item 50-250/80-15-09; 50-251/80-17-09).

j. The inspectors found the personnel selection, qualifications and training at Turkey Point to be acceptable. However, based on the inspector's professional judgement, improvements to the program could be obtained if licensee consideration is given to: (1) refresher and updating training program for health physics technicians (paragraph 5.b); (2) a formal list of qualifications for each health physics supervisor (paragraph 5.d.); (3) a detailed job description for each member of the health physics department (paragraph 5.e); (4) a closer liaison between the corporate health physicist and the plant (paragraph 5.g); (5) a review of the contents of the training program (paragraph 5.h); and (6) routine critiques for non-routine tasks (paragraph 5.i).

6. Exposure Controls

a. The respiratory protection program was reviewed by the inspectors for training, content and adequacy including: medical content, respirator fit program, cleaning and decontamination methods, inspection and testing, repair, packaging and storage, and inventory. The respiratory protection training encompassed approximately 1-1/2 hours and included the requirements of NUREG-0041. The program utilized primarily video-tape presentations, but did include live lectures and demonstrations of appropriate methods of inspections and donning of equipment. Upon completion of the classroom sessions, the student is requested to read and sign a document stating the primary requirements of the respiratory protection program and his signature indicates that he has read and understood those limitations. This document is maintained as a record indication of respiratory protection training. No formal written examination is given. An examination to determine fitness for the purpose of wearing respiratory protective devices is conducted by a medical technician and results reviewed and signed by a local physician. A medical examination is required prior to authorization to wear respiratory protection and annually thereafter. The examination consists of completing a one-page medical history questionaire, blood pressure check, ear, nose and throat medical check, aural examination of lung and heart actions and lung capacity check. The lung capacity graph is attached to the medical record and both are maintained as permanent files. The primary criteria for non-approval is lung capacity readings of less than 80 percent of the norm for age and body size.

The respiratory fit program utilizes a sealed booth to perform quantitative tests of individual respirator fits. The equipment uses a NaCl challenge atmosphere. Each individual is instructed in donning the respirator. A standard Scott respirator is utilized for the test. The booth attendent visually checks the fit and observes a negative pressure leak test. The individual to be tested enters the booth and attaches a hose to the internal test fittings. The operator samples the booth atmosphere and adjusts the equipment to read 100 percent at that concentration. The equipment is cleared and the measurement range is reduced such that a full scale will be equal to 10 percent of the booth concentration. Leakage indications of less than one percent are required for a successful fit. The procedure for conducting the test was posted and followed. A chart recording test result is

completed and indicates the name and social security number of the individual, the machine parameters and the tracing of the machine indicated concentrations for each of the phases of the test. This chart recording is retained as a permanent record. Respirator refit is scheduled on a two-year frequency.

Upon completion of respirator training, medical examination, and respirator fit, the records are reviewed and approval for respiratory protection wearing is authorized if all records so indicate. Authorization to wear respiratory protection is then entered into a computer program and printed out routinely on the current radiation exposure report. A flagging system is in place to indicate rescinding authorization to wear respiratory protection when any of the required frequencies have been exceeded. Respirators are issued by HP for specific jobs as covered by an RWP. Issuance of a respirator is made only after physically reviewing the current radiation exposure report and verifying that an individual is qualified to wear respiratory protection equipment.

b. The respirator cleaning, decontamination and drying station is located in the new radwaste facility. Bagged respirators are delivered to this facility where they are brushed and then placed in a dishwater type-cleaning machine, washed twice in the machine--once face up and the second time face down-then hung for air drying. Procedures are posted in this facility giving instructions on the demonstration methods, materials and procedures. The cleaned respirators are then delivered to the HP respirator station where they are inspected surveyed, smeared and disinfected. Masks requiring repair are tagged and sent to the HP repair facility. Acceptable masks are tagged and sealed in plastic bags in preparation for storage or issuance.

Each respirator has a unique number attached on a brass tag. At the inspection and bagging station a record is kept of each respirator that is inspected and its condition noted. Maintenance and repair records are maintained on each individual respirator in a card file in the respirator repair facility. Several respirators were removed from the station and from the stand by storage station and independently checked for radiation levels, condition and contamination levels. No unacceptable conditions were detected. A system has been established whereby respirators found contaminated near acceptable limits (1000cpm per 100 sq centimeters or 1.5 mR/hr) are re-marked as special use and maintained for high level contamination work, i.e., steam generator work. If the contamination or radiation levels on the respirator are above 1.5 mR/hr, the respirators are discarded as waste.

The supply of respirators was reviewed for adequacy. Approximately 355 regular Scott respirators, 15 new Scott lightweight and 47 Scott welding masks are in a rotating use system. A backup supply of approximately 300 new Scott respirators is available onsite. A comprehensive supply of repair parts for the Scott respirators was available on site. A supply of bubble air-supplied hoods was also available and air tubes for use with the Scott respirators when used as a supplied-air unit. The air tubes are a single use item and are

discarded as radioactive waste because of the inability to assure internal cleanliness of the tube. The breathing air system used in reactor containment is supplied from four oil-less air compressors leased specifically for this purpose. A breathing air piping system delivers air to selected locations in the reactor containment. The air is then fed to a Bullard filter manifold. NIOSH-approved fittings, hoses, and respiratory devices are used.

Health Physics Procedure HP-65, Maintenance, Accountability, Cleaning, Inspection, Repair and Storage of Respiratory Protection Equipment, indicates that supplied air should be of grade D quality. No records were available to indicate quality of air provided and no routine sampling of supplied air is provided. However, the licensee representatives were still attempting to locate the records (Unresolved Item 50-250/80-17-10; 50-251/80-15-10).

The above procedure also specifies, "Air reducer/distribution device (Bullard type) should be checked prior to each installation for use and after repairs." No record is maintained of this check. Discussions with the licensee personnel indicated that this check and filter change is made prior to each outage and a sticker placed on the device to indicate the check has been completed. Two devices were noted in Unit 4 reactor containment which had no sticker visible. A system should be implemented which will assure that these units are acceptable for use (Inspector Follow-up Item 50-250/80-17-11; 50-251/80-15-11).

c. Self-contained breathing apparatus (SCBA) is used at the facility for emergency use. The air tanks of this equipment are refilled at the facility. Air for this refilling is provided by a commercial vendor. No record of certification of air quality was available for these tanks at the time of the inspection. However, licensee representatives stated the air was certified and were attempting to locate the record. Labels on the tanks indicated oxygen percentage and nitrogen percentage, but no other certification of air quality. It is recommended that certification of air quality from the vendor be procured and maintained at the site (Unresolved Item 50-250/80-17-12; 50-251/80-15-12). Health Physics Procedure No. HP-90, Inventory of Emergency Equipment, provides for inventory of emergency equipment required on an annual basis and preferably on a monthly basis.

Inspection of SCBA units in the respirator supply station and in the reactor control room indicated that monthly inspections were being made. However, masks in the SCBA containers indicated tags up to two years old. Discussions with licensee representatives indicated that inspections did not include removal from the bag of face pieces for inspection. The inspector recommended the removal of the respirators from the bags for an adequate inspection to meet the intent of Health Physics Procedure HP-60, Respiratory Protection Manual, section 13.1 (Inspector Follow-up Item 50-250/80-17-13; 50-251/80-15-13). With this exception, the inspection and record of inspection of the emergency respiratory equipment appeared to be adequate.

d. The inspectors reviewed the licensee's program for external exposure control. The overall dosimetry program at the Turkey Point facility is described in the Health Physics Manual. Personnel doses are maintained in accordance with 10 CFR 20.101 and 20.103 limits for both external control with suitable plant administrative control in place to provide some margin of safety for personnel exposures. Flordia Power and Light Company does utilize the banking concept, i.e., 5 (N-18) for workers, both permanent and temporary. Paragraph 4.3 of the Health Physics Manual states that all permanent personnel dose records for external dose is by use of thermoluminescent dosimeters (TLD). An airborne monitoring program is used for internal exposures and bioassay and whole-body count results are used for internal dose. Paragraph 4.3.1 of the health physics manual contains the details of the TLD program. All processing is done at the general office in Miami on a monthly basis except for potential high exposures which are to be processed immediately.

Paragraph 4.3.2 of the Health Physics Manual describes the self-reading pocket dosimeter system, their prime system for providing daily external exposure control. Each person entering the radiation controlled area has a permanent TLD and is issued a self-reading pocket dosimeter by the security guards at the control point. A sign prominently displayed requests each individual to assure that the self-reading pocket dosimeter reads zero before entry into the RCA. Each employee, upon exit from the radiation control area, is required to give the security guard at the exit point his dosimeter number (TLD), the self-reading pocket dosimeter reading, and the RWP for the work he was performing. This information is entered by computer terminal by the guards onto cassette tape, and a hard copy is also provided. Errors or changes at the control point result in a second entry. No corrections other than a re-entry can be made at this point. During outages, twice per day the cassette tape is removed and inputed into the health physics whole-body counter computer. This computer printout is then hand checked against the hard copy from the security printout and errors and changes hand-written on the printout. A corrected copy from the health physics whole-body counter computer is then hand inputed into the Miami computer data base. A hard copy printout of accumulated exposures is received back from the Miami computer and copies posted and distributed to supervisory personnel, health physics personnel, the security guards at the entrance to the RCA and posted in the corridor at the entrance to the RCA. The printout includes a section listing personnel who are excluded from the radiation control area because of exceeding limits, and a listing of personnel who have reached 80 percent of an extension limit administrative guideline, as well as a listing of current exposures of all personnel. Also available, is a computer printout of Exposure Use by RWP, job and trade category. This Exposure Use printout is available to the health physics supervisor. It is recommended that consideration be given to developing a computer system with a direct tie in to the corporate exposure data base (Inspector Follow-up Item 50-250/80-17-14; 50-251/ 80-15-14). This would reduce the number of hand computer entries required with a commensurate reduction of potential error points.

e. The inspectors observed on numerous occasions workers consulting the twice daily updated computer exposure records posted in the corridor at the entrance to the RCA. The posted records were subdivided into various trades and consultants. Discussions with individual workers indicated that they were able to comprehend the information presented. Further discussion with various job foremen and supervisors indicated that they frequently reviewed the radiation exposure lists for their particular department and utilized the information contained on the list to evenly distribute the exposure the members of their group received.

Florida Power and Light's Health Physics Manual, Chapter 6, Personnel Exposure, specifies the company's exposure guidelines. The guidelines are: 500 mrem/week whole body, etc., (paragraph 6.1.1.2) with exceptions. The exceptions (paragraph 6.1.1.3) are: extensions to 800 mrem/week without NRC form 4 and 1000 mrem/week with it and with the approval of the health physics supervisor. With the completed NRC form 4, over 1000 mrem/week can be given when requested by the individual supervisor and approved by the HP supervisor with prior notification of the plant superintendent and/or plant manager. Doses for women should not exceed 500 mrem during any two consecutive months. This, too, can be extended if she and her supervisor request it, the HP supervisor approves it and prior notification is given to the plant manager. Paragraph 6.1.1.3.2, further states that no individual shall be allowed to enter the radiation control area when their dosimeter (self-reading pencil) results indicate a quarterly dose of equal to or greater than 800 mR (2150 mR with completed NRC form 4) until his TLD is read, reported and verified. If his TLD indicates less than 1000 mrem (2750 mrem with completed NRC form 4) he may be allowed back in the radiation control area. His dose is to be monitored closely until he reaches either 1000 mrem or 2750 mrem at which time he shall not be allowed within the radiation control area except for emergencies. In the case of an emergency the Health Physics Manual states that an individual may receive up to 25 Rem whole body dose in order to prevent a serious injury or to prevent destruction of equipment which could result in a serious injury or up to 100 Rem whole body for life saving actions. In any event, every effort shall be made to insure doses to not exceed either 1250 mrem or 3000 mrem.

TLD results are recieved monthly from processing in Miami. A review for correlation between pocket dosimeter records and TLD dose records is made at that time. A variation of ±25% is investigated. Neutron dosimetry consists of an albedo neutron dosimeter issued to an individual going into areas where neutrons are expected. Daily neutron dosimetry control is provided by dose rate versus stay time calculations. Calculated neutron doses are recorded and entered in the daily computer printout for inclusion in the current radiation exposure report issued twice daily.

A quality assurance audit of wearing of dosimeters made prior to this appraisal recognized a problem with the correct wearing of dosimeters. From inspectors observations, this finding is valid and continued

corrective action should be emphasized. Discussions with licensee representatives indicated they were well aware of the problem and were implementing corrective actions. (Inspector Follow-up Item 50-250/80-17-15; 50-251/80-15-15). In summary the inspectors found the external exposure control program to be acceptable if consideration is given to recommendations stated above.

f. The system for control, drift check and source checks of personnel dosimeters (pocket dosimeters or pencils) was reviewed. Drift and source checks are made each 6 months and/or after dropping. Source checks are performed with a certified source to predetermined exposures. The dosimeter must fall within +15% to successfully pass both tests. Dosimeters not passing these tests are removed from service. Documented records of drift checks and source checks were available and complete. This program is comparable to that suggested by ANSI N13.5. All pocket dosimeters are maintained at the entry to the radiation control area by security personnel. Dosimeters are re-zeroed by security personnel and placed in receptables for reissue. Any off-scale or unusually high readings are referred to the health physics supervisor for investigation. Investigations are documented and consist of discussions with the individual as to his actions and locations of potential exposure and comparisons with other personnel in the same locations as that individual and independent HP surveys of areas where the individual had been. Dosimeters with questionable results are removed from service until rechecked and recalibrated.

All beta-gamma TLD's are issued by Health Physics. Permanent personnel have the TLD's attached to their security identification card and when not in-plant the TLD's are stored at the entrance to the protected area. Neutron TLD's are stored at the entrance to the radiation control area and are issued as required. Records of neutron badge numbers and identification of neutron TLD recipients are maintained by security and each badge is issued to only one individual for the monthly period. Normal exchange period for both beta gamma and neutron TLD badges is monthly. All TLD's are read out at the general office om Miami. Control for background dosimeters are maintained at each TLD storage location. These badges are returned with the used badges to Miami where the control badges are averaged and one reading is given as the background for all TLD's. Based on the movement of TLD's from issue points to storage locations, this appears to be an acceptable compromise for background determination.

From discussions with licensee representatives the inspectors determined that there are no dosimter performance audits or checks. The only audit is a quality assurance procedural audit at approximately annual periods. The inspectors recommend that there should be initiated performance audits to validate the calibration and performance of TLD systems as per ANSI N13.11 (Inspector Followup Item 50-250/80-17-16; 50-251/80-15-16). In summary the inspectors found the personnel dosimetry program at Turkey Point to be acceptable, but recommended improvements outlined above.

g. Health Physics Procedure HP-66, Selection, Use, Control and MPC Hour Accountability of Respiratory Protection Equipment, defines the requirements for MPC hours accountability. In practice, MPC accountability is only maintained for unusual or accident conditions. Any entries into air concentrations above detection limits require the wearing of respiratory protection. For those instances where personnel are exposed to airborne contamination levels without respiratory protection or if the levels exceed the protection factor of the respiratory protection equipment worn, MPC hours are caluclated and recorded. These records are maintained in personnel folders. Air sample filters are counted by HP, and results logged in both a sequential logbook and on individual air sample forms. The air sample forms are reviewed by the health physics supervisor. Air samples for iodine collection (activated charcoal cartidges) are counted by the chemistry department on a GeLi detector and isotopic analysis completed by them. Depending upon the work load of the chemistry department this practice could result in delays of work while determining air concentrations. Discussions with licensee represnetatives indicate that plans are in progress to provide a GeLi detector and counting capability to the health physics organization. The inspectors recommended a speed up in the accquistion of the GeLi system for the health physics department (Inspector Followup Item 50-250/80-17-17; 50-251/80-15-17).

An in-house whole-body counter is used to establish baseline data for new employees, support for the air sampling program and evaluation of suspected or actual uptake of radioactive material. The counting system is composed of three main components: (1) a chair counter with detectors, high voltage sources and milti-channel analyzer detection group, (2) a secondary computer used to record on cassette tape the spectral data from the calibration background and personnel counts, and (3) a Hewlett Packard 9830 computer with memory system and impact printer for the data analysis and reporting. The system utilizes three detectors; one for the lower torso; one for the lung; and one for the thyroid. Health Physics Procedure HP-34, Matrix Calibration of the Whole-Body Counter, provides for periodic calibration of the system. A review of the calibration indicates that standardized solutions traceable to the Bureau of Standards are placed in a phantom and nuclide spectra from the calibrated sources are entered into the computer program. The instrument is calibrated using 6 separate radionuclides, those in common abundance in an operating plant, as the comparison library for the data analysis. To preclude missing any library, an alert level of 100 counts in any portion of the spectra is cause for notification of supervision and an additional investigation. All permanent personnel are required to get a whole-body count at least annually. Temporary personnel are required to get a whole-body count prior to any potential internal exposure and at termination from the plant. Whole-body count data is included in form HP-31 and the computer printout is attached and placed in the permanent record of the person, as well as copies provided to the individual. Each whole-body count is reviewed by the HP supervisor and signed before issuance. The above procedure also provides for urinalysis to be used in place of

the whole-body count in the instances where the counter is out of service. Urinalysis samples are sent offsite to a certified laboratory for analysis. Review of records indicated that in some instances this was done and records were in the file for those analyses.

h. The inspectors reviewed the licensee's posting and control of radiation areas, high radiation areas, airborne radioactivity areas, contamination areas, radioactive material areas, and the labeling of radioactive materials in the tours inside the plant. Significant levels of contamination were detected outside of the radiation controlled area and outside of the protected areas by the inspectors and these are discussed separately in section 7 of this report. The inspectors reviewed the radiation controlled area for posting and radiation levels. The Turkey Point facility specifies that the total auxiliary building within the RCA be posted as a radiation area and each high radiation area within the building is posted when the levels exceed 100 mr/hr. The layout of the facility makes this philosphy consistent with 10 CFR 20. All high radiation areas and hot spots were posted with one exception. An unmarked drawer in the chemistry laboratory was noted which contained numerous unmarked reactor coolant sludge samples reading in excess of 200 mR/hr. The samples were not labeled as radioactive materials as required by 10 CFR 20.203 (f) and this was identified to licensee representatives as an item of noncompliance (Infraction 50-250/80-17-18; 50-251/80-15-18). No other discrepancies of the posting requirements were noted within the radiation controlled area.

A survey was conducted of 22 personnel in the radiation controlled area selected at random to determine if they were aware of what dose rates may be expected inside the radiation controlled areas but outside of marked areas. The personnel interviewed covered numerous crafts. Three of those interviewed specifically recognized that dose rates may be from 0-100 mR/hr in the unmarked areas. The other 19 indicated responses such as none, zero, very low, maybe up to 5 or 10 millirem/hour. Discussions with training personnel indicated that they, too, recognized this problem some months ago and had revised their training program to re-emphasize the restrictions and potential dose rates in the radiation controlled areas. They indicated that approximately one third personnel had been through subsequent retraining. The inspectors urged a speed up in the retraining efforts (Inspector Followup Item 50-250/80-17-19; 50-251/80-15-19).

i. Random selection of radiation work permits were reviewed for adequacy of instructions and adequacy of surveys to cover the radiation work procedure requirements. This review indicated that requirements on the RWP's appeared appropriate for the work being performed and that surveys and air samples were available, if indicated, for the RWP's.

Radiation work permits are required for most jobs. The procedure is outlined in Health Physics Procedure HP-1, Radiation Work Permits. Copies of current permits were posted at the entrance to the radiation

controlled area and at the entrances to each of the rooms or facilities for which the RWP's were written. The RWP's frequently stated that surveys were required by HP prior to entry, or notification of HP prior to entry was required, and it was noted that current surveys were posted with the RWP's at those entrances.

The practice as specified on RWP's of requiring personnel to carry a dose rate meter for jobs where dose rates may be above 100mR/hr is supplemented in many instances by health physics coverage, or as in the case of containment work in Unit 4, by Health Physics rovers who routinely survey the various levels of containment and are available for specific work and for general observation and control as necessary. Specific high-level jobs within containment such as the steam generator plugging work were covered separately by specifically-assigned Health Physics personnel.

Observations of personnel entering containment and other areas for radiation work indicated that they were aware of the radiation work permit number and the requirements of the radiation work permit. The radiation work permit system as defined and as practiced appeared to adequately provide radiation protection for personnel and instructions to those personnel.

The routine contamination and radiation survey program for the facility was reviewed. The program requires 38 areas to be smear surveyed and radiation level checked daily. In addition, there are requirements for 34 weekly area surveys, 38 monthly area surveys and 7 quarterly surveys. Records reviewed indicated that surveys were completed, records maintained and that survey activities appeared adequate. Observation of HP personnel conducting daily surveys was also made. Smears are extensively taken and general background levels, radiation levels in the various rooms and areas are checked. It is suggested that HP personnel should consider carrying a more sensitive detection instrument with them on the routine surveys to increase their ability to detect sources not readily visible such as the sources found in the chemical laboratory noted above. (Inspector Followup Item 50-250/80-17-20; 50-251/80-15-20). The routine survey program appears to be complete and adequate with the exceptions mentioned previously.

j. The frequency and location of air sampling appeared generally good. Routine air samples are taken from the auxiliary air ducts. Investigation and action is required if the level of activity shows significant increase over the norm. The majority of air samples are for job-specific activities. During the period March 6 through May 14, a total of 462 air samples were taken. Sampling locations were throughout the radiation control area with a significant number in Unit 4 reactor containment for the specific work going on. As would be expected, sample frequency increased as work load increased. Each air sample is calculated and recorded on a specific form and results reviewed by shift supervision.

k. The licensee's radioactive source check and inventory program was reviewed. Records were in place and indicated that smear surveys had been completed and the inventory was intact. It was noted that the current source check and inventory survey record did not have the signature of the HP tech performing the survey. It was recommended that furture surveys have signatures affixed.

l. Contamination and radiation surveys were made of laundered protective clothing ready for issue. A sampling of 9 single coverall-type protective clothing was surveyed at 6 specific locations. The maximum radiation level detected was 1.5 mR/hr on an elbow using a Xetec instrument. Smears of the garments indicated less than 100 cpm removable contamination.

While observing a routine survey of the clean clothing areas by HP personnel, a significantly high radiation level was detected in the rubber glove storage bin. HP personnel sorted out the gloves and found one with a maximum reading of 21 mR/hr gamma and 475 mrad/hr beta on it. Smears of the glove indicated approximately 26,000 cpm of loose contamination. Observation of a similar licensee routine survey by the inspectors, disclosed another hot glove in the same area. Both of these gloves exceeded the release limits on laundred protective clothing for reissue. However, the laundry was surveyed when it was placed in the bins. The laundry is presently manned by maintenance personnel who are not qualified to survey the protective clothing.

The inspectors recommended the clothing be surveyed by the health physics before it reaches the bins. The procedure for survey of laundred protective clothing was modified to the licensee to prevent a recurrence of the problem (Inspector Followup Item 50-250/80-17-21; 50-251/80-15-21). The supply and availablity of protective clothing for the level of activity being conducted appeared to be adequate.

m. Unit 4 was shut down for steam generator tube plugging work during the period of the appraisal. The dose control system for steam generator jumpers was reviewed. Dose rates in the primary side head of the steam generators range from 10 to 15 rem/hr. Dose controls for personnel entering this area is, of necessity, very critical to control prevent overexposures of personnel. The system for determining exposure available and controlling dose for steam generator jumpers is as follows. Personnel who are assigned as steam generator jumpers spend significant time prior to work performance in a cold mockup away from the radiation area to become familiar with the location and their specific job. Health physics personnel are specifically assigned to control doses to steam generator jumpers. These personnel receive from the individual's supervisor his past absorbed dose and the NRC Form 4 dose history. A separate card and dose record is completed for each individual. Their past exposure record and the daily exposure recieved at Turkey Point facility are checked and entered on a special steam generator record (Form HP-110). Also included on this form is the amount of exposure available for the particular day's work and the estimated dose rates of the particular site he will be going to and the stay time that he is allowed to receive his allotted exposure.

In the work observed by the inspectors, two HP personnel were assigned to the particular job that was to be done. The steam generator jumper, dressed in normal protective clothing required for all reactor containment work, reported to the HP tech at the job site. The HP tech assisted the individual in dressing in an additional waterproof layer of protective clothing. Additional dosimeters, both TLD and high range pencil dosimeters, were taped to the individual's head, then supplied air respiratory protection and hood covering was donned. All protective clothing seams and openings were taped closed by the HP personnel. Immediately prior to the jumper entering the steam generator head, an air sample was taken of the area where he would be. An HP tech using a stopwatch timed the individual from the time he entered the zone until he exited. After the individual left the zone he was assisted in undressing and his pencil dosimeters read by the HP. The steam generator jumper then leaves the zone and all of the information for that entry is collected, entered on record, air sample evaluated and air sample results entered on that data sheet. The information from the data sheet is then retained as a record of that particular individual's entry into the steam generator and pencil readings entered into the computer program. This cycle was completed for each steam jumper entry.

n. In December 1979, a contract worker was overexposed while marking defective steam generator tubes for future plugging (NRC Inspection Report RII 50-250/79-40; 50-251/79-40). An inspector observed the steam generator tube marking and plugging operations and agreed that the commitments made in response to NRC report appear to be adequately followed.

On May 15, an inspector observed mechanical plugging of a unit four steam generator. The operation appeared far more radiologically acceptable than the previous system of explosive plugging. A jumper enters the channel head with a hand held drill, the drill is loaded with a plug, the plug is placed in the tube to be plugged and driven up into the tube where it expands and seals the defective tube. The operation is very fast and no appreciable radioactivity is stirred up. After six separate jumps, exposures averaged approximately 150 millrem per jump in the channel head. A licensee representative stated that the value is close to that which would be expected during explosive plugging. The licensee has commited to mechanically plugging its defective steam generator tubes during the remainder of the outage. The inspector had no further questions or comments regarding tube plugging operations.

n. Some portion of the radiation work in progress at Turkey Point may require exposure to significant beta fields. Discussions with licensee personnel indicated that beta dose rate measurements have been made but that exposure levels were determined primarily by gamma dose rate measurements. Health Physics documentation was reviewed to evaluate if appropriate consideration had been given to beta dose in establishing working dose rates. Documentaion was available that indicated the

Health Physics group had made both dose rate measurements and TLD measurements in steam generator locations to determine the contribution of beta radiation to personnel doses. Comparative measurements have been made with instruments and TLD's covered by protective clothing layers, mask face shield layers and bare to determine the extent of beta exposure. The data indicates that for the energy of beta they experienced in the steam generators the limits for whole-body penetrating gamma radiation will be limiting for all work being done in those locations. Most importantly, the available information in studies that have been made and the knowledge of the individuals responsible showed that the problem of beta dose considerations was recognized, that appropriate consideration had been made for beta dose, and appropriate actions had been selected.

o. Accompanied by licensee's representatives, the inspectors entered the Unit 3 containment while the unit was at 100% power for the purpose of approximating the Nitrogen-16 fields just inside the biological shield wall. Specially prepared TLD's were used for the measurements and a comparison was made with the facilities portable instrumentation. The results of this study indicate that a typical TLD response to a Nitrogen-16 field will underestimate the actual exposure by approximately 20 percent. Therefore, the gamma dose as measured by existing TLD dosimeter systems plus a correction of 20% should be a dose approximation of the true gamma dose, assuming a typical Cesium-137 gamma calibration is used to the TLD dosimeter.

p. The inspectors found the licensees exposure control program to be acceptable, but recommended the following changes: (1) maintain records for Grade D quality air for supplied air systems (paragraph 6.b); (2) establish a records system for Bullard type air filters (paragraph 6.b); (3) obtain air certification records for SCBA's (paragraph 6.c); (4) inspect emergency supplies more thoroughly (paragraph 6.c) (5) increase computer capability for dose control (paragraph 6.d); (6) insure proper wearing of dosimetry (paragraph 6.e); perform performance audits to validate the calibration and performance of TLD systems (paragraph 6.f); (7) acquire a GeLi system for the health physics department (paragraph 6.g); (8) complete general retraining of plant staff for radiation levels (paragraph 6.h); (9) use more sensitive instruments for surveys (paragraph 6.i); and (10) and modify laundry procedures (paragraph 6.l).

7. Surveillance - Outside the Radiation Control Area

a. On May 6, 1980, the inspectors surveyed the area outside the Radiation Control Area (RCA) but within the protected area. In the south-east corner of the RCA, opposite the rad waste building the inspectors noted general area radiation levels of 0.2 to 0.5 mR/hr (1.7 mR/hr maximum) on the ground in front of four temporary construction trailers and approximately six picnic tables. The inspector requested some soil samples to be taken and analyzed by the licensee. Additional surveys by the inspector found some fixed contamination on one of

approximately six picnic tables; no contamination was found inside the four temporary trailers. The licensee's analysis indicated that Cobalt-60 was present in the picnic table and the soil samples indicated the presence of Cerium-144, Cobalt-58, Cobalt-60, Chromium-51, Cesium-137, Manganese-54, Niobium-95, Antimony-125 and Zirconium-9. A quantative assessment was not possible because the licensee had not calibrated the GeLi system for soil samples. It should be noted that a previous inspection (IE Rpt. RII No. 50-250/79-27, 50-251/79-27) had identified contaminated areas outside the RCA in the same general vicinity. Previous inspections also noted the licensee's inability to quantitatively assess soil samples. The area previously (in August 1979) identified had been fenced off. A comparison of the isotopic results from the August 1979 spent fuel pool overflow and the present soil samples indicated that a new problem had arisen.

The licensee posted portions of the protected area as a contaminated area and moved the temporary construction trailers and picnic tables to an uncontaminated location. In addition, several (approximately 20) construction workers were given whole body counts to insure they had no internal contamination. All results of the whole body counts were within expected bounds. Furthermore, each construction worker was independently frisked by health physics personnel prior to exit from the RCA. Only one individual out of approximately 300 had a trace of fixed contamination in his boot.

The licensee continued surveys of the protected area on May 7 and 8. On the late evening of May 8, a small spec was found on the ground in the protected area which read 50,000 counts per minute on an HP-210 probe. Isotopic identification of the spec revealed the same isotopes as the soil samples of May 6. The pattern of samples taken on the seventh and eighth indicated that the area of contamination was heading in a direction beyond the protected area. On the morning of May 9, the inspectors surveyed beyond the protected area fence and found an area approximately 20 to 30 feet wide and 100 yards long which was contaminated above background. The general area was 300 to 500 cpm above background. Hot spots reading from 3000 to 5000 cpm above background were noted. The inspectors also noted that the area was near a sand blasting shop. Sand blasting sand can read in excess of 10,000 cpm. However, isotopic identification identified typical fission and corrosion products in the samples taken. Due to the lay of the land, the contamination stopped some 50 feet before entering the canal system. Samples taken indicated the presence of cobalts and niobium. The inspectors conducted numerous surveys outside the protected area to insure that the contamination was limited to the area identified. Included in these surveys were: the onsite dump, Air Force Survival School, Girl Scout camp, the "Red Barn" picnic facility, outside the Coast Guard facility, boat ramp area, fuel oil storage facilities, construction warehouses, feedwater heater laydown area and the entire plant perimeter. No additional areas of contamination were identified outside the protected area. Licensee's representatives

cordoned off the area outside the protected area and assessed the magnitude of the contamination and the cleanup efforts required.

Meanwhile, other licensee's representatives tried to trace the source of the contamination. The primary suspect was explosive steam generator tube plugging operations which occurred in January 1980. A comparison of the air sample data taken in January 1980, after explosive plugging with the isotopic mixtures found in the soil samples obtained on May 6, 1980, and the isotopic mixtures found in the reactor building ventilation exhaust roughing filters indicated to the inspectors that the explosive plugging operations could have been the source of the problem. Further credence is given to the postulation of the explosive plugging as the source of contamination when the meterological conditions on the days of explosive plugging were examined. During the time of plugging, there existed moderate inversion type conditions with a wind direction blowing to the southeast from the stack, the general area where the contamination was found. The inspectors, accompanied by licensee personnel, surveyed the roofs of the reactor building, auxiliary building, spent fuel pool building, radwaste butler building and the radwaste building. Due to the layout of the buildings relative to the stack, contamination might be expected to be found on the radwaste building and the Unit 4 spend fuel pool building. Slight contamination was found on the radwaste butler building roof.

The inspectors reviewed the plant vent discharge records for January 1980 and found the releases for particulates as measured by the plant vent isokenetic probe to be within Technical Specifications, although elevated over normal releases. The licensee estimated that approximately 8 millicuries of particulate matter was released during the tube plugging operations in January 1980. Estimates of soil contamination indicated approximately two to four millicuries of mixed isotopes to still be on the ground in the backyard. Almost a millicurie of Cobalt-60 was estimated to be present in the backyard. More than one microcurie of Cobalt 60 was present beyond the protected area fence and beyond the surveillance of the licensee. The inspectors observed that, in all likelihood, the explosive steam generator tube plugging operation in January 1980 was the likely source of contamination in the backyard.

When a sample of the reactor building exhaust roughing filter was obtained by the licensee, the inspectors noted the condition of the filters, and later, observed the units in operation. The initial inspection revealed that there was no differential pressure transmitter across the filter bank and the filters appeared dirty and overloaded. Discussions with licensee's representatives revealed that there were no requirements, procedures or uniform system for the change out of the roughing filters. Field observations by the inspectors of the filter bank in operation revealed that the large majority of the filters were separated from their holding frame (because they were overloaded) thereby permitting air to pass unfiltered by them. Ventilation systems problems are discussed further in Section 8 of this report.

Since tube plugging operations for the current outage were immenent, licensee's representatives devoted considerable time and effort to try to avoid a repetition of the past problem. The use of expandable bags to filter the explosive and radioactive off gases from the plugging operation were considered but discarded due to lack of adequate space. The use of mechanical plugging was also considered. The licensee representatives agreed to the use of mechanical plugs. Licensee representatives also stated that the contaminated soil had been removed from the ground outside the protected area and its ultimate disposal was being planned. The inspectors informed licensee representatives that failure to conduct an adequate survey for the period of time January 1980 through May 6, 1980, was contrary to the requirements of 10 CFR 20.201(b) (Infraction 50-250/80-17-22, 50-251/80-15-22).

b. On May 8, 1980, while surveying the area between the RCA and the protected area fence, the inspectors noted that the area around the liquid radwaste discharge lines for units 3 and 4 were reading 0.5 and 3.5 mR/hr respectively. The inspector observed the same radiation levels one hour leter. There was no radiation area posting on either discharge line even though the area is part of the unrestricted area. The inspectors informed licensee representatives that failure to restrict the levels of radiation to less than 2 mR/hr was contrary to the requirements of 10 CFR 20.105.b.1 and was an item of noncompliance (Infraction 50-250/80-17-23; 50-251/80-15-23). Licensee representatives took immediate action to correct the problem.

c. While entering the RCA, the inspectors noted a slight flutter in the response of NRC Region II instrumentation, indicating the presence of radioactivity nearby. The source was found to be emanating from two electrical vaults at the entrance to the RCA. Radiation levels were 0.2 mR/hr at the surface of the vaults to 3 to 4 mR/hr inside the vaults. Additional licensee surveys found an additional six electrical vaults (4 inside the RCA and 2 more outside) with measurable contamination and radiation levels of up to 60 mR/hr in a sump in one of the vaults in the RCA. Subsequently, it was discovered by licensee representatives that the Unit 3 by the containment electrical penetration room had at one time contained approximately 2 feet of contaminated water in the bottom of the room. The inspectors determined that no electrical penetrations had been submerged. However, there were spare conduits in the room which connected the penetration room to the vaults. The penetration room had become contaminated by the failure of the "A" CVCS hold up tank in 1979 and subsequent leakage thru a wall joint. The inspectors also noted that the sumps in the electrical vaults automatically discharge into the storm drain systems. Previously, the inspectors had noticed (IE Rtp. RII: 50-250/79-27; 50-251/79-27) elevated levels of activity in the storm draim system. The inspectors reviewed the licensee's commitments to resolve the problems identified

in the above report and found the commitments were fulfilled. However, the inspectors stated that a more vigorous search for the source of contamination of the storm drain system should have uncovered the contaminated electrical vaults. The inspectors informed licensee representative that failure to survey the electrical vaults to assure compliance with 10 CFR 20.105.b(1) was contrary to the requirements of 10 CFR 20. 201.b and was an item of noncompliance (50-250/80-17-22; 50-251/80-15-22).

d. The inspectors found the licensee's program for surveillance outside the RCA to be inadequate. The inspectors recommended, and licensee's representatives agreed, that procedures should be expanded to include thorough surveys outside the RCA (inspector followup item 50-250/80-17-24; 50-251/80-15-24) and the change out of the containment exhaust filters (Inspector Followup Item 50-280/80-17-25; 50-251/80-15-25).

8. Radioactive Waste Management

a. Process Waste Gas System

An inspector reviewed records of gaseous releases for July 1979 to December 1979 from the licensee's Radioactive Effluent Release Report and gaseous release permits between January and May 1980. All requirements of Technical Specification 3.9.2 appear to have been performed satisfactorily. Calibration records and maintenance request forms for the past 18 months were examined for the gaseous waste processing system. Nuclear Chemistry Procedures C-1 and C-9 were reviewed for calibration of process monitors R-14 (Plant Vent-gross detector) and R-15 (Steam Jet Air Ejector). The calibrations were performed in accordance with Technical Specification, Section 3.9 and Tables 4.1-1 and 4.1-2. No items of noncompliance or deviations were found.

The Steam Jet Air Ejector (R-15) is the primary means of indication of a primary to secondary leak. It is calibrated each time such a leak is confirmed. Air ejector monitor for Unit 3 (R-3-15) was last calibrated 12-22-78. R-4-15 was calibrated March 1980. Weekly samples are taken during a leak, plotted and the data points connected to form a calibration curve. The alarm setpoint is one and a half times background. The inspector had no further questions regarding the Steam Jet Air Ejector Monitor.

The Plant Vent Monitor (R-14) is a G-M tube detector for gross indication of gaseous discharges. It is positioned in the exhaust stack serving both containment buildings as well as the auxiliary building, and the Unit 4 Fuel Handling Building. The NMC monitor is located in the Auxiliary Building. It isokinetically samples the stack effluent for iodines, particulates, and noble gases. The charcoal iodine

sample and the particulate filters are changed weekly. The unit is calibrated based on the gamma spectrum from a Gas Decay Tank sample. Flow rate devices are calibrated by the I&C department. The Plant Vent Monitor (R-14) is calibrated to the NMC. Both were last calibrated July 3, 1979. Each monitor is source checked daily as required by Technical Specification Table 4.1-1. The NMC monitor has no alarm function. R-14 alarms in the control room and automatically terminates any Waste Gas Decay Tank discharge if a high radiation level is reached. Containment purges are not terminated by a high R-14 radiation alarm. The alarm setpoint, one and a half times the expected count rate, is based on the Waste Gas Decay Tank sample gamma spectrum.

In January several releases of radioactive particulate matter were made due to explosive steam generator tube plugging operations (as discussed in Section 7 of this report). The releases were monitored by the containment building monitor as well as the plant vent monitors. No discharge exceeded Technical Specification release limits. The containment building monitor has an automatic isolation function from a high activity signal based on Technical Specification release limits. Review of isotopic discharge records from the NMC plant vent monitor for January showed relatively high releases of Cobalt-58, Cobalt-60, and Cobalt-57.

A licensee representative estimated that a total of eight millicuries of particulate matter was released out of the stack due to explosive plugging operations in January. Although these releases were within Technical Specification release limits, reconcentration of the activity beyond the site protected area boundary has been identified as an item of noncompliance (see Section 7 and Appendix B). The inspectors discussed many methods of containment of particulate matter which becomes airborne following explosive tube plugging. The licensee committed to mechanical tube plugging for the present outage.

NUREG 0578 requires installation of high range effluent monitors on all gaseous discharge pathways. The inspector was informed that work has been progressing toward meeting this requirement. Monitors should be available for installation by January 1, 1981. A licensee representative also stated that an engineering request has been submitted to reroute the air ejector discharge to the plant vent. This will eliminate the requirement to supply a high range effluent monitoring device for each steam jet air ejector.

The inspector reviewed results of the leak testing program for primary systems components outside the containment building as required by NUREG 0578. Operating Procedure 0206.4 was written to ensure compliance.

The data showed numerous small leaks, mainly from valves, which were corrected. In addition, the inspector reviewed maintenance requests on the Waste Gas Compressors and noticed extensive work had been performed to eliminate leaks. The inspector had no further questions regarding the Waste Gas Decay Systems or the requirements of NUREG 0578.

b. Filtration System

An inspector reviewed performance test procedures for the following filter systems:

(1) Emergency Containment Filter System
(2) Post Accident Containment Ventilation System
(3) Control Room Ventilation System

It was noted that although not required by Technical Specification 4.7, these procedures call for testing in accordance with ANSI N510-1975 if the systems had been maintained. The inspector had no further questions concerning filter system procedures.

The inspector reviewed results of testing of the Unit 4 Containment Building Emergency Filtration System on May 12, 1980. Representative charcoal samples from both filter trains A and C were given an elemental iodine test in accordance with ANSI N510-1975 and procedure 4704.3. Filter train A tested to 99.95% efficiency and Filter Train C tested to 99.95%. The inspector recommended that the filters be given an methyl iodide test in place of the elemental iodine test because the former will give a better indication of filter efficiency. A licensee representative stated that their emergency filter system is a recycle system and that the more accurate methyl iodide test was appropriate only for once through effluent filter systems. The inspector reminded the licensee that Regulatory Guide 1.52 calls for the methyl iodide testing. The licensee's action on this matter will be evaluated during a future inspection. (Inspector Followup Item 50-250/80-17-26; 50-251/80-15-26).

The inspector reviewed results of filter inspections performed last January on the Unit 3 filtration systems. Twenty four HEPA filters were replaced in the Emergency Containment Filtration System due to small pin holes. The licensee felt that these resulted from fine matter penetrating the filter during certain outage operations.

The emergency filter banks are now covered with a protective sheath during outages. The HEPA filter of the Post Accident Containment Vent System was also replaced. It was damaged due to the removal of the charcoal filter which is used as a sample and changed each refueling. The inspector had no further comments or questions regarding filtration systems.

On May 13, two inspectors examined air flow patterns throughout the Auxiliary Building and Radwaste Building with a hot wire anemometer and smoke tubes. The air flow direction in the main corridor of the Auxiliary Building was dependent upon the open/closed status of its doors. Numerous cubicles had air flowing in on the bottom of the doorway and out from the top or vice versa. Air movement in most of the cubicles was less than 100 feet per second. In several instances, air was found to flow from a more-contaminated area to one of less contamination. They were: (1) the decontamination room into the tool room, (2) the Unit 3 RHR pit into the Auxiliary Building main corridor, and (3) respirator mask decontamination room into the Radwaste Building. The licensee agreed to evaluate the problems with the ventilation system (Inspector Followup Item 50-250/80-17-27; 50-251/80-15-27).

Based on the above findings, improvements in the following areas are required to achieve an acceptable program:

(1) evaluation of need to upgrade filter systems for the Containment Building (discussed in Paragraph 7.a) and to incorporate the use of a methyl iodide efficiency test in charcoal sample testing (Paragraph 8.b).

(2) complete evaluation of ventilation systems in the Auxiliary and Radwaste Building (Paragraph 8.b).

c. Liquid Waste

Radioactive liquid waste is processed by a portable demineralization system purchased in January 1980 from Hittman Nuclear Development Corporation. Between January 1978 and January 1980, a portable demineralization system from Chem-Nuclear had been used in conjunction with the plant's waste evaporator to process liquid radwaste. The present system is operated by an onsite Hittman representative and consists of two 170 cubic foot demineralizers in series, three diaphragm pumps, and associated piping and instrumentation. It is capable of processing 100 percent of the radioactive liquid presently generated. There are sufficient interlocks between level indicators, pressure sensors, pumps, and valves to ensure no inadvertent spill of radioactive water and/or resin will occur due to equipment failure or overfill. The piping is all flexible hose and connects to the Waste Holdup discharge. Permanent hard piping should be considered by the licensee to improve the system. (Inspector Followup Item 50-250/80-17-28; 50-251/80-15-28).

The volume of water to be processed has decreased markedly with the rerouting of radioactive laboratory drains away from the laundry waste tank. Prior to this system modification the liquid waste processing system handled an estimated 10 to 11 gpm continuous inflow to the holdup tank. Since the installed 2 gpm Waste Evaporator was inadequate to treat this quantity of water, two actions were initiated: (1) an outside contractor installed a portable demineralization processing system, and (2) the conversion of a 20 gpm Boric Acid Evaporator to a

waste evaporator. In the fall of 1979, the elimination of substantial radioactivity in the laundry system by rerouting laboratory drains as mentioned above, permitted laundry waste to be sampled and discharged within technical specification limits, thereby reducing the quantity of liquid radwaste to the Waste Holdup Tank to an estimated 1 to 2 gpm.

Although the waste evaporator has sufficient capacity to process 1 to 2 gpm, the licensee decided to continue operation of the portable demineralization system. At the present time, the waste evaporator and the converted boric acid evaporator are idle with no expectation of restoration to service in the near future. Health Physics personnel have stated that exposures have declined with the use of the portable demineralization system as well as a reduction is solid waste handling.

The inspector reviewed Hittman Nuclear Development Corporation Procedure F-419-P-001 Rev. 1 for the operation of the portable demineralization system and Operating Procedure 5333.4 for waste solidification. The procedures appear to adequately address the operation of the systems. From discussions with a licensee representative and observations of the operation of the Hittman demineralization system, the inspector concluded that good radiological controls and practices are being followed.

When spent demineralizers are removed from operation, they are stored in a controlled, shielded area in preparation for shipment to the burial iste. When asked how he ensures less than one percent free standing liquid remains in the liner before shipping, a licensee representative stated that the liner sits for a certain amount of time at an incline to achieve gravatational concentration of excess liquid at a point where a suction pump is attached and removes the liquid from the liner. The inspector observed a spent demineralizer inclined in preparation for dewatering, the operation of the suction pump used to dewater the resin bed, and concluded that the licensee's actions are adequate to meet all burial site criteria. The inspector informed the licensee that a written procedure describing the dewatering operation in detail should be prepared as soon as possible. (Inspector Follow-up Item 50-250/80-17-29; 50-251/80-15-29).

The inspector reviewed liquid release records for calendar year 1979 and the first 4 1/2 months of 1980. All values appear to be representative of releases expected from equivalent facilities and are less than technical specification limits, except for the quantity of Sr-90 which appeared to have been released from the Waste Disposal System in July 1979. Radiological Effluent Release report dated February 22, 1980, lists 1.16 millicuries of Sr-90 discharged in July 1979 while the highest value for the remainder of the year was a factor 20 less. The inspector was informed by licensee representatives that the chemical analysis was incorrect due to a contaminated sample. A review of the analytical results of the sample showed gross contamination with Co-58, Co-60, and Mn-54. The counts from the contamination were attributed to Sr-90 before the error was discovered. The licensee has initiated a new review process of strontium analysis to preclude the recurrence of the problem. The technical specifications require a

quarterly strontium analysis. The licensee performs a monthly analysis on the composite liquid waste sample. The inspector had no further questions regarding liquid release records.

Following the overflow of the Unit 4 Spent Fuel Pit and resultant ground contamination from the yard drain system pathway (see Report RII 50-250/79-27; 50-251/79-27), the licensee committed to periodic sampling of the storm drain system. Normal storm drain sampling occurs the first week of each month. Since this program was instituted, two instances of radioactive releases through the storm drains have been recorded. Normal sampling picked up radioactivity traced back to the overflow of the Condensate Recovery Tank (CRT). The activity in the CRT was attributed to the leaks in a Boric Acid Evaporator. The tubes have since been plugged.

Sampling also picked up radioactivity attributed to resin which overflowed onto the roof of the Auxiliary Building. The roof drains were thought to be connected to the Waste Holdup Tank. However, as originally designed, the roof drains are connected to the storm drains. The contaminated material was drummed and removed as solid waste. The roof was coated with a sealant to fix any remaining contamination.

During the week of this appraisal team inspection; an inspector discovered contamination in electrical vaults outside the radiation control area. Readings up to 60 millirem per hour from water in the bottom of the vaults were discovered as described in paragraph 7.c of this report. From the storm drain samples taken, activity was found in the portions of the system connected to the electrical vaults but the levels were considered too low to require investigation. The activity was recorded and accounted for in all liquid release reports. The inspectors concluded that the activity was probably discharged to the storm drain system only after excessive rain and that it is likely some was discharged and not monitored due to the relatively infrequent sampling by the licensee. This is another example of an item of noncompliance for failure to perform an adequate survey outside the radioactive control area (Infraction 50-250/80-17-22; 50-251/80-15-22). It appears that the storm drain sampling program has been beneficial in discovering previously unexpected radioactivity release pathways. However, the licensee should consider: (1) more frequent or additional sampling following periods of excessive rain, and (2) establishing an investigation threshold on sample results to determine the source of each release.

An inspector examined calibration records and maintenance requests for the last year and a half on liquid effluent monitors R-18 (Liquid Effluent Control Monitor) and R-19 (Steam Generator Blowdown Monitor). The requirements of Technical Specification 3.9.1(g) appear to have been satisfied for both monitors. The Steam Generator Blowdown Monitor is calibrated yearly during outages. The inspector had no questions or comments concerning maintenance requests.

Calibration curves for R-18 are generated yearly by analyzing a sample of a waste tank, usually the Waste Condensate Tank, diluting the sample to obtain a second data point, and plotting the results. The alarm setpoint for monitor R-18 is based on the background count rate and the expected count rate of the release obtained from the discharge sample analysis and the corresponding value from the calibration curve. The monitor is backflushed after each release to control the background count rate. The background has been relatively consistent between 8,000 and 22,000 counts per minute.

The Discharge Permit requires a functional check of the capability of R-18 to automatically close the waste discharge valve as required in Technical Specification 3.9.1(e). An inspector reviewed liquid waste discharge permits LR-80-294 and LR-80-295 on May 14 and verified that this check had been done and is being done routinely. The inspector noticed that both permits were for the "B" Waste Monitor Tank and was told that LR-80-295 had been written because LR-80-295 had terminated due to an apparent high activity alarm from R-18 and subsequent discharge valve closure. The inspector reviewed the strip chart recording of the release and confirmed that liquid discharge was terminated at 1030 on May 4, 1980. Through discussions with licensee representatives and review of applicable data, the inspector verified that the "B" Waste Monitor Tank was recirculated and sampled prior to issuance of waste discharge permit LR-80-295. Analysis of the sample did not indicate any discrepancies from the initial sample taken for discharge permit LR-80-294. The inspector concluded that no unexpected amount of radioactivity was released.

The inspector accompanied by a licensee representative observed the closure time of the liquid discharge valve. Based on size of piping, normal discharge flowrate, and valve closure time, the inspector determined that the cause of an R-18 high activity trip would not be contained within the system for subsequent recycling and sampling. The inspector verified that the location of the valve and the speed with which the discharge valve closes mitigates the radioactive release as committed to in the FSAR and Technical Specification. However, the licensee should consider moving the discharge valve or replacing the valve with one that closes more quickly in order to ensure no activity resulting in a high alarm signal to monitor R-18 is discharged.

Based on the above findings, this portion of the licensee's program appears to be acceptable, but the following matters should be considered for improvement of the program as stated above in this paragraph:

(1) a periodic review of the system as a complete entity to identify methods for waste processing reductions;

(2) permanent piping for the portable demineralization system;

(3) establishment of a dewatering procedure;

(4) changes to the storm drain sampling program incorporating:

(a) more frequent or additional sampling following heavy rains; and

(b) establishment of an investigation threshold to determine sources of high activity in samples.

(5) modifying discharge piping and valve arrangement to ensure total containment of activity causing an R-18 trip;

(6) modify review process of strontium analysis results for timely recognition of discrepancies.

d. Solid Waste

An inspector reviewed the licensee's records of solid waste generated in 1978 and 1979 and the estimates for 1980. The Turkey Point Plant had a volume reduction of 46.5 percent in solid waste generation and offsite shipments between 1978 and 1979. The activity contained in these solid wastes showed a reduction of nearly 70 percent over the same period.

The major contributors in the reduction were a reduced volume of non-compressable waste and a reduction in the amount of solidified waste. Initial figures indicate further reductions can be anticipated for this calendar year due to the operation of two new process systems. A new trash compaction system will combine non-compressible with compressible wastes and reduce overall dry radwaste onsite. A new portable demineralization system will essentially eliminate solidified wastes due to it's full liquid waste processing capability. The latter will reduce the use of waste evaporators and subsequent solidification of evaporator bottoms. A slight increase can be expected in the volume of compacted waste and radioactive spent resins generated with the use of the new process systems. However, the increase should be limited so that an overall reduction in yearly solid waste generation is realized.

Additional attempts at waste reduction include: (1) positioning a health physics technician at the entrance to the containment building equipment hatch to limit the influx of material which will have to be handled as contaminated waste; (2) additional training of workers in the need for radioactive waste reduction; (3) color coding trash bags to separate radioactive trash from non-radioactive trash; and (4) rerouting contaminated laboratory drains away from the relatively clean laundry waste tank which has reduced the amount of radioactive water to be processed by the portable demineralization system by at least 75 percent. This will reduce the volume of spent resins considerably in 1980.

The inspector was informed by licensee representatives that work is scheduled to begin in 1980 on a radwaste storage facility in the southeast corner of the radiation control area. The building will have a storage capacity of approximately two years worth of dry radioactive waste generation. The amount of dry waste persently being stored onsite is approximately two thousand cubic feet. At the end of 1979, three to four times that amount was stored onsite which taxed the plant's present capability to store waste. The new storage facility should be sufficient for future storage requirements.

Following problems associated with LSA Shipment 80-001 (see NRC inspection report, RII 50-250/80-11; 50-251/80-11), the licensee purchased a new waste compaction system from CGR Compacting, Inc. The system compacts non-compressible as well as compressible trash in a 95 cubic foot steel reinforced wooden box under greater pressure than the old system which used standard 55-gallon drums. The result is more tightly compacted waste. Preliminary licensee experimental data indicates approximately four to one volume reduction over waste compacted by the earlier system. The inspector was informed that similar units at Fitzpatrick and Con Yankee have experienced five to one reductions on compactable items. The fact that the wastes are more tightly compacted offers the added advantage of ensuring no shifting of cargo during transport to burial sites, as appeared to be the case with LSA Shipment 80-001.

Based on observed system operation, an inspector estimated that external exposures due to waste compacting and truck loading should decrease by a factor of two with the continued use of the CGR compactor. However, there appears to be a potential for internal exposures if the compacting operation is not performed within certain restrictions. Although the compactor unit is equipped with a ventilation system to filter potentially contaminated air exhausted from the waste as it is compacted, personnel loading the compactor stand aside and puncture the waste bags. The inspector reviewed results of grab air samples taken periodically in the worker's breathing zone. He determined that the licensee was in compliance with the regulations. However, it was suggested that a continuous air sample should be considered so that potentially radioactive puffs from each bag being opened will be monitored. The licensee will study the situation and resolve any discrepancies. An inspector will review the licensee's corrective actions during a future inspection (Inspector Follow-up Item 50-250/80-17-30; 50-251/80-15-30).

An inspector questioned licensee representatives, and the CGR representatives contracted to operate the compaction system as to how they ensure the compacted waste contains no free standing liquid. The inspector was informed that personnel loading the compactor inspect each sealed bag for items which may contain liquids. These bags are set aside and not compacted. Licensee representatives stated that a modification of the steel lined box to include a drain is being studied. The inspector observed the inspection for items containing liquids and had no further question or comments concerning waste compaction.

The inspector reviewed the licensee's concrete solidification program and was informed that very little if any solidification is expected in the near future. Sludges from bottoms of tanks are solidified periodically; however, evaporator bottoms present the major source of radioactive waste to be solidified. The volume of solidified wastes is dependent upon the amount of liquid radwaste processed. Reduced solidification is expected because of the full process capability of the portable demineralization system due to the decrease in radwaste water (see Liquid Waste section). In 1978, 1,395,634 gallons of water were processed by Chem-Nuclear' portable demineralization system. In addition, 300,000 pounds of cement was used (at 8 1/2 pounds of cement per gallon of water) to solidify evaporator bottoms. In 1979, the totals were 2,362,731 gallons and 80,630 pounds respectively. Since the waste evaporators are not expected to be used this year, the volume of solidified wastes for 1980 should approach zero.

Based on the above findings, this portion of the licensee's program appears to be acceptable, but the following matters should be considered for improvement of the program:

(1) continuous breathing zone air sample for personnel perforating waste bags if perforation is deemed necessary;

(2) installation of drain on CGR compactor boxes.

e. Radioactive Waste Shipping

An inspector examined the licensee's radioactive waste transportation program for compliance with NRC, DOT, and State of South Carolina shipping and burial regulations. Health Physics Procedure HP-46 appears to satisfy the applicable requirements for receiving and shipping radioactive wastes.

Specific requirements of the Barnwell Waste Disposal Site Criteria and the Chem-Nuclear burial license have been incorporated into shipment release form. Separate release forms for specification containers, LSA boxes, and storage drums containing radioactive wastes are available. These forms serve as a check off sheet for requirements necessary prior to approval for shipment offsite. Extensive interface between Quality Control and Health Physics is evident as required by IE Bulletin 79-19. Discussions with Quality Control and members of the health physics department indicate that the requirements of the Certificates of Compliance (C.O.C.) for individual shipping casks have been satisfied for each shipment. The inspector suggested that documentation of the fulfillment of C.O.C. requirements should have greater emphasis on the release approval form.

On May 14, the inspector observed the licensee's operations for shipping a radioactive 170 cubic foot spent resin liner to the Barnwell Waste Disposal Site (Shipment number 80-032). Specification Container Release Form HP-72/C was used. The licensee and the inspector performed independent radiation surveys on the arriving truck and shipping cask.

The QC receipt inspection revealed a head gasket missing. A spare gasket was installed by the onsite cask manufacturer representative prior to loading the spent resin liner. Although favorably impressed with the overall interaction between the different groups required to prepare the radioactive shipment, the inspector could not discern who had overall responsibility for conduct of work. The manufacturer's cask handling procedure is kept by Health Physic personnel who do not officially direct the maintenance personnel handling the cask. The inspector stated that responsibility should be delineated to control all activities surrounding waste handling and shipment. The inspector acknowledged the formation within the Health Physics group of a Radwaste Section to concentrate on shipping of radwaste and had no further questions regarding waste handling.

The inspector reviewed records for shipments 80-001 through 80-032 and discussed preparation of shipping papers with licensee representatives. Activity is determined from dose rate readings at a certain distance from the container using tables supplied by a consultant. The inspector reviewed the consultant's calculations and noticed that the values for compacted trash and spent resin liners refer to waste containers no longer in use. The present trash compaction system compacts non-compressible as well as compressible trash in a 95 cubic foot steel lined wooden box under greater pressure than the old system which used standard 55-gallon (7.5 cubic feet) galvanized steel drums. The result is more dense compacted waste. The consultant's data for resin lines include values for Chem-Nuclear's 80, 195 and 300 cubic foot liners while the present portable demineralization system utilizes a Hittman 170 cubic foot liner. The inspector expressed concern for the adequacy of the activity estimation using data generated for the obsolete systems. The licensee stated that they will study and resolve any apparent discrepancies. (Inspector Follow-up Item 50-250/80-17-31; 50-251/80-15-31).

The licensee's method of weight estimation was also questioned. An estimate is made using an assumed density and the known volume of each type container. The inspector acknowledged the licensee's comment that a load cell is on priority order. It was pointed out that the weight of each shipment is a prerequisite to the determination of LSA applicability. Since the levels of activity in all LSA shipments reviewed by the inspector were extremely low and the weights recorded on the shipping papers appeared to be reflective of expected weights of such shipments, the inspector had no further questions.

The inspector was informed by licensee's representatives that the isotopic abundance is determined by a GeLi analysis, on a direct sample of the waste in the case of spent resin shipments or a compilation of room smear survey results for shipments of compacted trash and waste sludges. The inspector stated that some methodical sampling of trash and sludges would be more accurate in isotopic abundance

determination. A review of waste shipments for calendar year 1980 revealed that no Group I or II isotopes are listed on the shipping forms. Licensee representatives stated that previous calculations of primary coolant activities for Group I and II isotopes disclosed that these isotopes would result in estimated values less than 10 percent of LSA limits. The inspector stated that a better estimate of Group I and II isotopes could be made as these isotopes are expected to concentrate in resin beds, evaporator bottoms, and possibly trash. Furthermore, the only exemption to listing Group I and II isotopes on the shipping record is that found in 10 CFR 71.7(a), which exempts the licensee from all requirements for packaging and transporting radioactive waste, including isotope identification, if each package contains less than 0.002 microcuries/gram of licensed material. The determination of Group I and II isotopes in radwaste shipments will be examined during subsequent inspections (Inspector Follow-up Item 50-250/80-17-32; 50-251/80-15-32). The inspector had no further questions or comments on shipping records.

Based on the above findings, this portion of the licensee's program appears to be acceptable, but the following matters should be considered for improvement of the program as described in the above paragraphs:

(1) place greater emphasis on the shipment release approval forms on the requirements of the Certificates of Compliance;

(2) delineation of responsibility for radwaste shipping and handling crews;

(3) determination of applicability of existing tables of activity determination from dose rate readings at certain distances from a waste container to present waste shipping containers;

(4) acquisition of load cell for shipment weight determination;

(5) more accurate determination of quantity of Group I and II isotopes in radwaste shipments and inclusion of same in shipping records when appropriate.

9. ALARA Program

a. The recommended bases for an ALARA program are contained in Regulatory Guides 8.8, "Information Relevant to Ensuring that Occupational Radiation Exposures at Nuclear Power Stations Will be as Low as is Reasonably Achievable (ALARA)", and 8.10, originally dated April 1974, "Operating Philosophy for Maintaining Occupational Radiation Exposures as Low as is Reasonably Achievable". In addition, 10 CFR 20.1.c, recommends that "...persons engaged in activities under licenses issued by NRC... should make every reasonable effort to maintain radiation exposures... as low as is reasonably achievable." From discussions with licensee's representatives and observation of actual work practices the inspectors found that many elements of an ALARA program did exist at the facility.

However, licensee representatives stated that maintenance and operations procedures do not routinely receive health physics review prior to issuance. The inspector commented that all procedures involving work on radioactivity contaminated systems, handling of radioactive material or work in radiation areas should be reviewed by the radiation protection staff as far in advance of the work as possible. This review is necessary to insure that adequate consideration is given to health physics and engineering aspects of the work, including staffing, availability of health physics equipment and supplies, temporary shielding, engineering controls to minimize airborne radioactivity and to keep exposures ALARA. In the professional judgement and observations of the inspectors, the ALARA program practiced means no one receiving radiation exposures in excess of the administration limits. A formal ALARA program with a specialist assigned primary responsibility for ALARA and with technical engineering support did not exist and the inspectors recommended that one be established (Inspector Followup Item (50-250/80-17-02; 50-251/80-15-02). The inspector noted that a radiological engineering support (or ALARA) group could have helped avoid the problems discussed in Section 7 of this report The inspectors also noted that the plant staff did reorganize temporarily into an ALARA type group just to handle the problems found.

b. Cognizant of the efforts presently being undertaken at the corporate level, the inspectors found the ALARA program acceptable but urged licensee representatives to consider the recommendations in the Regulatory Guides and implementation of a formal ALARA program at the facility. Licensee management agreed to look into the matter. The inspectors also mentioned to licensee representatives that one of the basic elements of an ALARA program is the capability of collecting and sorting historical radiation exposure data in order: (1) to evaluate the status of any on-going job, and (2) to plan in the future for further reductions in exposures. The inspectors found many functional elements of various computer codes which could accomplish these tasks. However, the type of computing equipment presently available does not permit an efficient utilization of the data available. The inspectors recommended that management consider providing an expanded computing capability to the health physics department such that the goals of an ALARA program can be accomplish (Inspector Follow-up Item 50-250/80-17-14; 50-251/80-15-14).

10. Facilities and Equipment

a. Records indicate that the plant instrument supply is approximately 165 instruments. These range from air sample counting instruments, frisker units for surveying, dose rate instruments, teletectors and high range emergency instruments. A large number of dose rate instruments are required because of the plant requirement that personnel entering high dose rate areas without Health Physics coverage must carry a dose rate instrument with them. Dose rate instruments are wrapped in plastic to reduce contamination and signed out to personnel at the entry to these work areas and instruments are assigned to individuals by number and individual name. Instruments are checked back in when the individual leaves the area or the instrument is no longer needed.

During heavy work periods it was noted that a large number of survey instruments had been signed out, per plant requirements leaving, essentially no dose rate instrumentation for the Health Physics personnel to use. It is recommended that additional supplies of dose rate instrumentation be provided to cover these high frequency use periods. (Inspector Follow-up Item 50-250/80-17-33; 50-251/80-15-33). Supply of instrumentation used for personnel surveying (friskers) appeared to be adequate. Numerous locations had friskers installed in a permanent position for personnel surveying and additional friskers were noted in the calibration shop going through the calibration process.

b. Discussions were held with plant I&C personnel to determine the extent and types of health physics instrument repair. It was stated that no special repair records are maintained on the health physics instrumentation and that the work order is only recorded for total manhours used. Computer data for the period May 1979 to April 1980 indicated that 440 work orders had been utilized for HP instrument repair and a total of 181 manhours used for those repairs. Based upon memory, the I&C personnel indicated that the primary repair problems with HP instrumentation was cable failure due to cable damage. While no other specific records were kept, the extent of repair indicated by the computer program does not seem excessive for the number of instruments in service.

c. The instrument calibration program at the Turkey Point facility is in the process of change. Previously, all instruments were sent offsite to a certified laboratory for calibration. The new system, in the process of being established, is for onsite calibration of all instruments except the PNR 4's, neutron dose rate instruments. These will still be sent offsite because a neutron source is not available onsite. Past records of offsite calibration were on file and maintained.

The new system of in-house calibration utilizes a multiple source gamma calibrator. A separate building has been set up for use as a calibration laboratory and mask repair station. The Health Physics management has assigned a specific individual responsibility for establishing a calibration program and maintaining the records for the calibration of in-plant equipment. A calibration records system is being set up to maintain individual records on each instrument and provide date of calibration and date due for recalibration. Calibration stickers are also placed on each instrument. Licensee personnel were requested to check the calibration on an instrument brought to the site by the inspectors. The calibration point was established on each of the 4 ranges of the instrument provided. All calibration points were in very close calibration except the high point of the high range (the 5R/hr range). The calibration point indicated 4.56 R/hr. The offsite instrument read 3.75 and 3.9 in two different attempts. The calculated reading was approximately 15% high at that point. All other readings were within 3% of the instrument. The instrument used was checked prior to site visit and after the site visit and was within 5%. While this error causes instruments to be calibrated in

the conservative direction, it is recommended that licensee reverify the high calibration point. (Inspector Follow-up Item 50-250/80-17-34; 50-251/80-15-34).

The calibration of air flow on air sampling devices was reviewed. Air sample flow rates are calibrated using a Venturi calibrated offsite and a flow meter calibrated by the I&C department. The flow rate calibration is unique in that the parameters specified on the instruments are time rather than actual flow rate. The sampling program requests and uses a set volume for its calculations, consequently flow rate is set to establish that volume in a preset time. No records are kept of the air sample flow rate calibration. Stickers are placed on each air sampling device with a due date. It was recommended to licensee personnel that a record system be established and maintained. (Inspector Followup Item 50-250/80-17-35; 50-251/80-15-35).

d. Eberline RM-14 and RM-15 units are used extensively with the HP-210 probe for area and personnel surveying. Calibration of these units is primarily an electronic calibration using a pulse generator to establish meter response to an input signal. The HP-210 probes are source-response checked to a specific source and must fall within a designated range of efficiency to be acceptable for use. No direct source calibration is made for the detector readout combination. However, a functional check is defined prior to each use to assure that the functional response falls within a specified range. Records of electronic calibration and HP-210 probe efficency calibration are maintained.

While no procedural requirements were found to define frisker alarm trip settings, conversations with licensee personnel indicated a trip setting of frisker alarms should be 100 cpm above background. Using a Technetium-99 source of approximately 21,000 cpm, 9 friskers at checkout stations were checked to determine their response and their alarm settings. Three alarmed at approximately 100 cpm above background, 3 alarmed only at full scale and 3 alarmed at approximately 90% of full scale. It was noted in observing personnel frisking upon leaving zones, that a large number rely upon alarming of the frisker rather than visual observation of the meter. HP Procedure HP-70, Decontamination of Personnel, in section 8.1.1, indicates that if the meter reading indicates greater than 100 cpm above background, the person will be considered contaminated. To meet this requirement the alarm levels should be at or below 100 cpm above background. It is recommended that additional emphasis be placed on maintaining and assuring that frisker alarm trip settings are at or below that release level. (Inspector Follow-up Item 50-250/80-17-36; 50-80-15-36).

At two locations, the Health Physics office, and the radwaste trailer, a shielded frisker probe is located at foot level for survey of feet prior to entering these and drinking areas. To provide protection from dirt these instruments have been covered with plastic. A check with a Technetium 99 source indicates that sensitivity of these probes

has been reduced 25 percent or greater because of this. The alarm settings on these two particular instruments were set at full scale. Observations of personnel entering these areas indicated that foot surveys are taken; however, frequently, the meters are not observed and the foot survey is somewhat automatic. The alarm settings should be at the release limits for effective use of these instruments with consideration given to lower sensitivity because of the plastic cover.

e. The inspectors observed that portable Health Physics instruments were being checked prior to use by holding the instrument near a radiation source and observing that the instrument responded to the radiation. Health Physics Procedure HP-13, Portable Survey Instruments, specifies that this will be done. This check, however, does not insure that the instrument will function properly. The response is checked on only one scale and a radiation response does not necessarily mean the instrument is functioning properly. It is recommended that ANSI N323-1978, section 4.6, be reviewed and a functional check system be implemented. This procedure requires that the instrument be exposed to a check source immediately following calibration in a constant and reproducible manner. Reference readings should be obtained on each scale normally used. If the instrument response to the check source on subsequent response checks differs from the reference reading by more than 20 percent the instrument should be removed from service and recalibrated(Inspector Follow-up Item 50-250/80-17-37; 50-251/80-15-37). This type of operability check is stated in Health physics Procedure HP-16, Count Rate Instrument Calibration, in section 8.5.5. However, this functional check is not performed in the field and this requirement does not cover dose rate instrumentation.

f. The inspectors reviewed the radiation monitoring instrumentation availability in the control room. The system is composed of 24 units, 3 units in containment of Unit 3; 3 units in containment of Unit 4; and the remainder in the auxiliary building, spent fuel storage areas and the control room. Calibration records were reviewed for 1979 and 1980. Records and calibration were current and maintained and set points identified at the instrumentation. Meterology instrumentation giving wind speed and direction are readily available and visible to the operator console in the control room. This data is recorded on charts and by operators twice per day on routine data sheets.

g. The analytical capabilities of the plants Geli systems were not evaluated by the appraisal team. They were recently evaluated by a separate team and the findings are discussed in report RII 50-250/80-08; 50-251/80-8.

In summary, the appraisal found the instrumentation at the Turkey Point facility to be adequate although improvements were recommended in calibration and functional checks of instrumentation prior to use (Paragraph 10.e), quantity of equipment available (paragraph 10.a), reverification of calibrator (Paragraph 10.c), and setting of frisker alarms (paragraph 10.d).

11. Procedure Review

a. The following procedures were reviewed by the inspectors:

HP1	Radiation Work Permit
HP2	Radiation Rules of Practice
HP3	Health Physics Instructions to the Guard Force
HP10	Calibration and Operation of Health Physics Laboratory Counting Equipment
HP11	Operation of Portal Monitors and Hand and Foot Monitors
HP13	Portable Survey Instruments
HP16	Count Rate Instrument Calibration
HP22	Airborne Contamination Surveys
HP31	Personnel Monitoring of Internal Dose-Bioassays
HP33	Operation of Whole-Body Counter
HP34	Matrix Calibration of the Whole-Body Counter
HP53	Iodine-131 Air Activity Determination by Use of Whole-Body Counter
HP60	Respiratory Protection Manual
HP61	Full Face Respirator, Air Purifying Type, Scott, Series 6031 and 6033
HP62	Full Face Respirator, Air Purifying Type, Mine Safety Appliance Model 84304
HP63	Full Face Respirator, Self Contained Breathing Apparatus Type, Mine Safety Appliance Model 401
HP64	Full Face Respirators, Airline Type, Scott and Zephair
HP65	Maintenance, Accountability, Cleaning, Inspection, and Storage of Respiratory Protection Equipment
HP66	Selection, Use, Issue Control and MPC Hour Accountability of Respiratory Protection Equipment
HP67	Full Face Respirator, Self Contained Breathing Apparatus Type Scott Pressure-Pak II
HP68	Operation of the Sodium Chloride Respirator Test Booth
HP70	Decontamination of Personnel
HP90	Inventory of Emergency Equipment
HP91	Emergency Radiation Team Response
HP101	Radiological Incident Reports

The inspectors recommended the following changes be made to strengthen the procedures (Inspector Follow-up Item 50-250/80-17-38; 50-251/80-15-38):

HP-13, Portable Survey Instruments - The procedure should be revised to include the range of acceptable response when functionally checked on a check source before each use as outlined N323-1978 entitled, "Radiation Protection Instrument Test and Calibration", section 4.6. The procedure should also include specification of the appropriate alarm setpoints for survey instruments used at frisker locations.

HP-60, Respiratory Protection Manual, Section 12.2.4 - Procedures should be revised to include specific requirements for assuring grade D quality air as described in NUREG-0041.

HP-62, Full Face Respirators, Air Purifying Type, Section 4.2 Specifies an assigned protection factor of 100 for this air purifying respirator. This in conflict with HP-60, Respiratory Protection Manual, and should be revised to read 50.

HP-63, Full Face Respirator, Self-Contained Breathing Apparatus Type, Section 4.2 - Specifies a protection factor of 100 for SCBA units. This is also in conflict with statements in HP-60, Respiratory Protection Manual. It should be revised to read 10,000.

HP-65, Maintenance, Accountability, Cleaning, Inspection, Repair and Storage of Respiratory Protection Equipment, Section 4.3 - Also specifies the use of Grade D quality air. Either this procedure or HP-60 above should provide specifics and methods and sampling frequencies for assuring Grade D quality air.

b. Health Physics Manual dated April 18, 1977, Rev. 1 - The manual is well written, reasonably current and covers all the elements of a good health physics program; however, the inspectors noted some areas where the manual could be strengthened. Specifically:

(1) The manual includes the licensee's definition of ALARA and provides general guidelines of ALARA philosophy throughout the document. Specific instructions for implementation of ALARA are provided primarily as recommendations and documentation is not required.

(2) Documentation to "demonstrate the improvements have been sought, that modifications have been considered, and that they have been implemented where practical" (Reg. Guide 8.8) is not required by the manual and not generally available at the plant.

It was the opinion of the inspectors that a dedicated ALARA group should be formed and responsibilities outlined for implementation and do documentation of an ALARA program.

Fig. 1 PLANT ORGANIZATION CHART

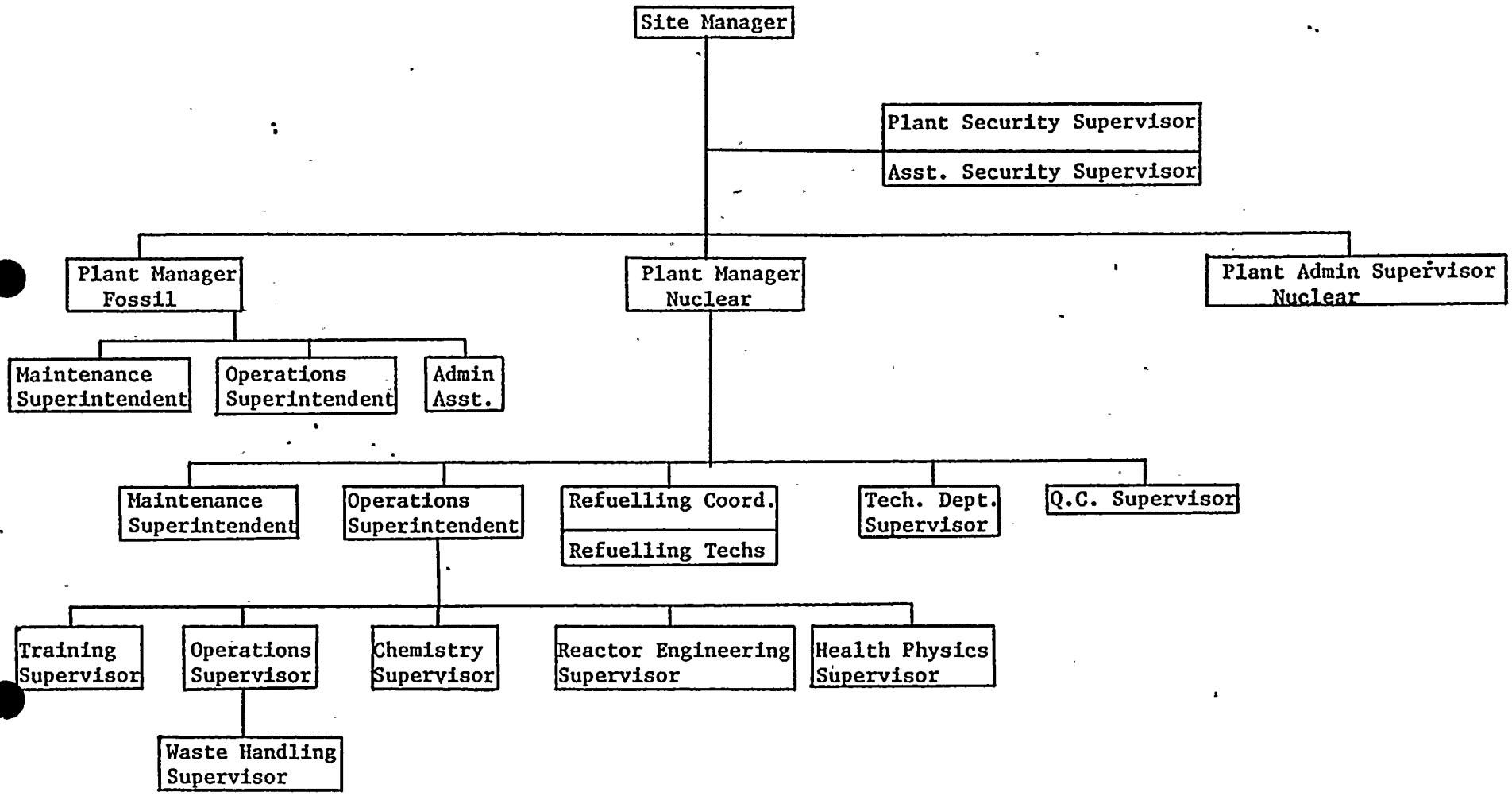
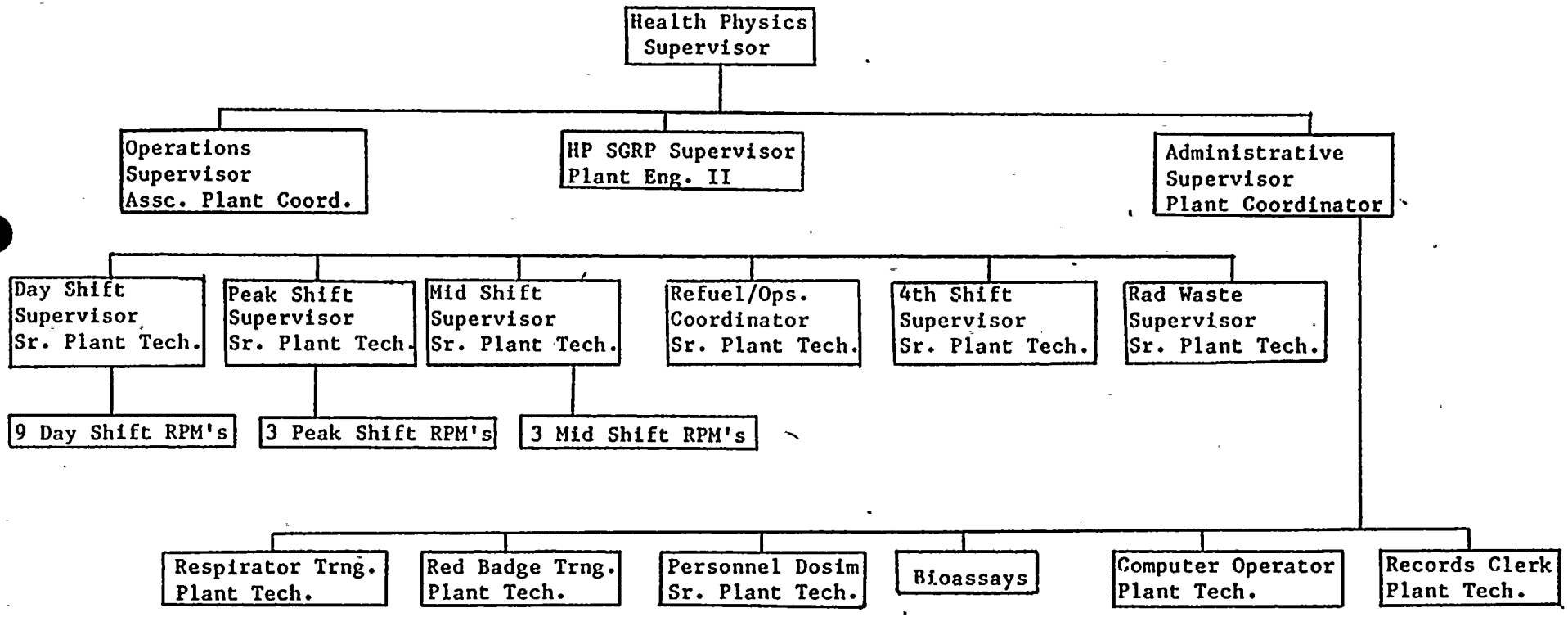


Fig. 2 TURKEY POINT HEALTH PHYSICS DEPARTMENT ORGANIZATION CHART



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

MAY 29 1980

In Reply Refer To:
RII:BRC
50-251/80-16

Florida Power and Light Company
ATTN: R. E. Uhrig, Vice President
P. O. Box 529100
Miami, FL 33152

Gentlemen:

This refers to the inspection conducted by B. R. Crowley of this office on May 15 through 16, 1980 of activities authorized by NRC Operating License No. DPR-41 for the Turkey Point facility, and to the discussion of our findings held with J. K. Hayes at the conclusion of the inspection.

Areas examined during the inspection and our findings are discussed in the enclosed inspection report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector.

Within the scope of this inspection, no items of noncompliance were disclosed.

In accordance with Section 2.790 of the NRC's "Rules of Practice", Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you (or your contractor) believe to be proprietary, it is necessary that you make a written application within 20 days to this office to withhold such information from public disclosure. Any such application must include a full statement of the reasons on the basis of which it is claimed that the information is proprietary, and should be prepared so that proprietary information identified in the application is contained in a separate part of the document. If we do not hear from you in this regard within the specified period, the report will be placed in the Public Document Room.

Should you have any questions concerning this letter, we will be glad to discuss them with you.

Sincerely,

C. E. Murphy, Chief
Reactor Construction and Engineering
Support Branch

Enclosure:
Inspection Report No. 50-251/80-16

cc w/encl:
See Page 2

MAY 29 1980

cc w/encl:
H. E. Yaeger, Plant Manager
P. O. Box 013100
Miami, FL 33101

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

MAY 29 1980

Report No. 50-251/80-16

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

Facility Name: Turkey Point

Docket No. 50-251

License No. DPR-41

Inspection at Turkey Point site near Homestead, Florida

Inspector: B. R. Crowley — 5/28/80
B. R. Crowley — Date Signed

Approved by: A R Herdt — 5/29/80
A. R. Herdt, Section Chief, RCES Branch — Date Signed

SUMMARY

Inspection on May 15-16, 1980

Areas Inspected

This routine, announced inspection involved 10 inspector-hours on site in the area of steam generator feedwater line radiography (RT) per IE Bulletin 79-13.

Results

No items of noncompliance or deviation were identified.

DETAILS

1. Persons Contacted

Licensee Employees

*J. K. Hayes, Plant Manager - Nuclear
*R. E. Tucker, Senior QA Engineer
*G. Gotch, GO-PRN Staff Specialist
J. F. O'Brien, Project QC Supervisor

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

Other Organizations

R. M. Purvis, Site Administrator (U. S. Testing, Inc.)

NRC Resident Inspector

*R. Vogt-Lowell

*Attended exit interview

2. Exit Interview

On May 16, 1980, the inspector met with the licensee representatives noted in paragraph 1 above and summarized the scope and findings of the inspection of IE Bulletin 79-13 radiography (RT).

3. Licensee Action on Previous Inspection Findings

Not inspected.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. IE Bulletin (IEB)

(Open) IEB 79-13, Cracking in Feedwater System Piping.

The first two welds from the steam generator in each feedwater loop were originally RT inspected in June 1979 prior to issue of IEB 79-13. During the current outage, the licensee is re-radiographing these welds plus all welds to the first support, piping to penetration welds, and auxiliary feedwater tie-in areas to meet the requirements of the Bulletin. The radiography is being performed in accordance with site procedure QI 9.3, Revision 2, "Radiographic Inspection" except that a 2T sensitivity is being used.

The welds are being evaluated to the ASME Boiler and Pressure Vessel Code, Section III, Subsection NC, 1977 Edition. At the time of the inspection, the radiography was still in process. The licensee's QA Level III had not reviewed any of the film for final disposition. The inspector made a preliminary examination of the following:

a. RT Film -

Loop A - Welds A-1, A-2, A-3, A-4, A-5, and A-6
Loop B - Welds B-1, B-2, B-3, B-4, B-5, B-6, B-7, B-8, and Pent-1

Loop C - Weld C-1

In a number of film the inspector noted that the penetrameters and shims had been placed on the base material within the 2t area to be evaluated. In all cases the penetrameters and shims were outside the area where cracks have been found in other plants. Therefore, the film are considered adequate for the purpose of the bulletin.

On May 23, 1980, the licensee notified RII that during review of the film, the QA level III examiner noted a questionable area in the base material next to Weld C-1 (steam generator "C", nozzle to reducer weld). After further radiography and outside surface preparation to better evaluate the area, the questionable area was determined to be a 5-inch long circumferential crack on the inside surface of the reducer parallel to the weld. The crack was confirmed by ultrasonic (UT) inspection. On May 25, 1980, the licensee notified RII that based on the finding for steam generator "C", further RT using special techniques was performed on reducer to nozzle welds for generators "A" and "B". RT revealed cracks in both reducers. The cracks were confirmed by UT. The licensee is evaluating corrective action.

b. Personnel Certification -

Personnel certification records for one U. S. Testing Level II examiner and one FP&L Level III examiner were examined.

Within the areas inspected, no items of noncompliance or deviation were identified.

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

JUN 0 4 1980

In Reply Refer To:
RII:SAE
50-250/80-15
50-251/80-13

Florida Power and Light Company
Attn: R. E. Uhrig, Vice President
Advanced Systems and Technology
Post Office Box 529100
Miami, FL 33152

Gentlemen:

Thank you for your letter of May 21, 1980, informing us of steps you have taken to correct the item of deviation under NRC Operating License No. DPR-31 and DPR-41 brought to your attention in our letter of April 25, 1980. We will examine your corrective actions and plans during subsequent inspections.

We appreciate your cooperation with us.

Sincerely,

R.C. Lewis

R. C. Lewis, Acting Chief
Reactor Operations and Nuclear
Support Branch

cc: H. E. Yaeger
Plant Manager
Post Office Box 013100
Miami, FL 33101

P.O. BOX 529100, MIAMI, FL 33152

FLORIDA POWER & LIGHT COMPANY

MAY 27 A10:31

May 21, 1980
L-80-156

Mr. James P. O'Reilly, Director, Region II
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

Re: RII: RVL
50-250/80-15
50-251/80-13

Florida Power & Light Company has reviewed the subject inspection report and a response is attached.

There is no proprietary information in the report.

Very truly yours,

Robert E. Uhrig
Vice President
Advanced Systems & Technology

REU/MAS/KMS/pa

Attachment

cc: Harold F. Reis, Esquire

OFFICIAL COPY

RESPONSE TO USNRC I AND E REPORT
80-15 and 80-13

Finding

As indicated in Table 9-1 paragraph C.2.(c) of your February 25, 1977, Fire Hazards Analysis, the fire pump installation complies with NFPA-20.

Contrary to the above, audible or visual alarms at a point of constant attendance which would alarm upon loss of power on the line side of the motor starter were not provided as required by NFPA-20, in the installation of the fire pumps.

Response

Corrective action has been initiated via Plant Change/Modification 80-48, Annunciation in the Control Room for Loss of Power to the Fire Pump Motor Controllers. This modification will provide both audible and visual alarm in the control room upon loss of voltage or loss of phase on the line side of the motor starter. Full compliance is anticipated by May 31, 1980.

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

APR 2 5 1980

In Reply Refer To:
RII:RVL
50-250/80-15
50-251/80-13

Florida Power and Light Company
ATTN: R. E. Uhrig, Vice President
P. O. Box 529100
Miami, FL 33152

Gentlemen:

This refers to the inspection conducted by R. Vogt-Lowell of this office on March 1 through 31, 1980 of activities authorized by NRC Operating License Nos. DPR-31 and DPR-41 for the Turkey Point facility, and to the discussion of our findings held with J. Hays at the conclusion of the inspection.

Areas examined during the inspection and our findings are discussed in the enclosed inspection report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector.

During the inspection it was found that certain activities under your license appear to deviate from commitments to the Commission and have safety significance. This item is identified in the Notice of Deviation enclosed herewith as Appendix A. Please provide us in writing within 20 days of your receipt of this letter your comments including a description of corrective actions that have been or will be taken, corrective actions which will be taken to avoid further deviations, and the date corrective actions were or will be completed.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you (or your contractor) believe to be proprietary, it is necessary that you make a written application within 20 days to this office to withhold such information from public disclosure. Any such application must include a full statement of the reasons on the basis of which it is claimed that the information is proprietary, and should be prepared so that proprietary information identified in the application is contained in a separate part of the document. If we do not hear from you in this regard within the specified period, the report will be placed in the Public Document Room.

APR 2 5 1980

Should you have any questions concerning this letter, we will be glad to discuss them with you.

Sincerely,

H C Dance /for

R. C. Lewis, Acting Chief
Reactor Operations and Nuclear
Support Branch

Enclosures:
1. Appendix A, Notice of Deviation
2. Inspection Report Nos. 50-250/80-15 and 50-251/80-13

cc w/encl:
H. E. Yaeger, Plant Manager
P. O. Box 013100
Miami, FL 33101

APPENDIX A

NOTICE OF DEVIATION

Florida Power and Light Company
Turkey Point 3 and 4

License Nos. DPR-31
& DPR-41

Based on the results of the U.S. Nuclear Regulatory Commission inspection conducted on March 1-31, 1980, certain of your activities appear to deviate from your commitments to the Commission as indicated below:

As indicated in Table 9-1 paragraph C.2.(c) of your February 25, 1977, Fire Hazards Analysis, the fire pump installation complies with NFPA-20.

Contrary to the above, audible or visual alarms at a point of constant attendance which would alarm upon loss of power on the line side of the motor starter were not provided as required by NFPA-20, in the installation of the fire pumps.

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

Report Nos. 50-250/80-15 and 50-251/80-13

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

Facility Name: Turkey Point

License Nos. DPR-31 and DPR-41

Docket Nos. 50-250 and 50-251

Inspection at Turkey Point Site near Homestead, Florida

Inspector: R D Martin for 4/23/80
R. J. Vogt-Lowell Date Signed

Approved by: R D Martin 4/23/80
R. D. Martin, Section Chief, RONS Branch Date Signed

SUMMARY

Inspection on March 1-31, 1980

Areas Inspected

This routine, announced inspection involved 64 inspector-hours on site in the areas of surveillance test observation; low power physics testing activities (Unit 3); plant operations; and followup of reportable events.

Results

Of the 4 areas inspected, no apparent item of noncompliance were identified, but one apparent deviation was found in one area (Deviation - failure to have installation of fire pumps in accordance with NFPA-20 - paragraph 8).

DETAILS

1. Persons Contacted

J. K. Hays, Plant Manager - Nuclear
J. E. Moore, Operations Superintendent - Nuclear
D. W. Haase, Technical Department Supervisor
K. E. Beatty, Training Supervisor
V. B. Wager, Operations Supervisor
J. Wade, Chemistry Supervisor
G. G. Jones, Nuclear Plant Supervisor
L. C. Huenniger, Nuclear Plant Supervisor
J. L. Whitehead, Nuclear Plant Supervisor
V. A. Kaminskas, Reactor Engineering Supervisor
R. G. Mende, Unit 3 Reactor Engineering
C. J. Becker, Unit 4 Reactor Engineer
W. A. Klein, Technical Department
P. J. White, Maintenance Superintendent
J. P. Mendieta, I&C Department Supervisor

Other licensee employees contacted included operators, technicians, QA personnel, and engineering personnel.

2. Management Interviews

A management interview was conducted on April 1, 1980 with the Plant Manager-Nuclear and selected members of his staff. The inspector summarized the scope and findings of his inspection activities. The deviation discussed in this report was presented to the licensee during the management interview.

3. Licensee Action on Previous Inspection Findings

Not inspected during this report oeriod.

4. Unresolved Items

No new unresolved items were identified during this inspection report period.

5. Surveillance Test Observation

Portions of surveillance test activities were witnessed by the inspector to verify:

a. Testing is scheduled in accordance with technical specification requirements.

b. Procedures are being followed.

c. Testing is performed by qualified personnel.

d. Limiting conditions of operation are being met.

e. System restoration is correctly accomplished following testing.

Those portion witnessed were part of the following surveillance tests:

- O.P. 15524 "Fire Protection Pump and Power Supply Periodic Test"
- O.P. 4104.1 "High Pressure Safety Injection Surveillance Test"

Within the areas inspected, no items of noncompliance or deviations were identified.

6. Low Power Physics Testing Activities (Unit 3)

The inspector reviewed the licensee records to verify that the following post-refueling activities had taken place: core power distribution determination; power range nuclear instrumentation channel check and calibration; core thermal power determination, isothermal moderator temperature coefficient determination; control rod worth determination; control rod drive and rod position indication checks; power coefficient determination.

The results of the following procedures performed by the licensee were reviewed by the inspector:

- O.P. 12702.1, "Normal Alignment of the Reactivity Computer"
- O.P. 0204.3, "Initial Criticality After Refueling"
- O.P. 0204.5, "Nuclear Design Check Tests During Startup Sequence After Refueling
- O.P. 1604.8, "CRDM/RPI Stepping and Drop Time Tests"
- O.P. 12404.1, "Power Distribution Surveillance Using the Incore Movable Detector System"
- O.P. 12304.3, "Power Range Nuclear Instrumentation Shift Checks and Daily Calibrations

Within the areas inspected, no items of noncompliance or deviations were identified.

7. Plant Operations

The inspector reviewed plant operations to ascertain conformance with regulatory requirements, technical specifications and administrative directives. The control room logs, shift supervisors' logs, and equipment

clearance logs for both units were reviewed. Interviews with a number of plant operations personnel were held on both the day and night shifts.

Supervisor and control room operator actions were observed during shifts and at various shift changes. The number of licensed personnel on each shift met or exceeded the requirements of the Technical Specifications.

Operators were responsive to annunciator alarms and appeared to be cognizant of plant status.

Within the areas inspected, no items of noncompliance or deviations were identified.

8. Followup of Reportable Events

The following events were reviewed to ascertain that:

a. reporting requirements were met;

b. corrective action was taken as required by Appendix B to 10 CFR Part 50;

c. the event was reviewed and evaluated; and

d. the facility was operated within the requirements of 10 CFR 50.59 and the Technical Specifications subsequent to the event.

50-250/80-01 "East Fire Pump Inoperable"

By letter dated February 4, 1980, the licensee reported event 250-80-01, indicating that the East fire pump was found to be inoperable and that it had been inoperable some 17 days due to its supply breaker being left open following maintenance. The licensee's Fire Hazards Analysis dated 2/25/77 states that "the fire oump installation complies with NFPA-20" [Ref. Table 9-1, paragraph C.2.(c)]. NFPA-20 requires, in fact, that power supervision be provided on the line side of the motor starter and that when the pump room is not constantly attended, audible or visual alarms be provided at a point of constant attendance. Such audible or visual alarms are not provided at a point of constant attendance for the present fire pump installation. This represents a deviation from commitments to the NRC (50-250/80-15-01).

9. Media Seminar and T ur (For Information Only)

The licensee hosted a media seminar and tour on March 27, 1980 at the Turkey Point Plant. A total of 40 members of the media and 28 licensee personnel participated in the event.

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

MAY 1 - 1980

In Reply Refer To:
RII:JDW
50-250/80-14
50-251/80-12

Florida Power and Light Company
ATTN: R. E. Uhrig, Vice President
P. O. Box 529100
Miami, FL 33152

Gentlemen:

This refers to the inspection conducted by J. D. Wilcox, Jr., of this office on April 10-11, 1980 of activities authorized by NRC Operating License Nos. DPR-31 and DPR-41 for the Turkey Point facility, and to the discussion of our findings held with J. K. Hays at the conclusion of the inspection.

Areas examined during the inspection and our findings are discussed in the enclosed inspection report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspectors.

Within the scope of this inspection, no items of noncompliance were disclosed.

We have examined actions you have taken with regard to previously reported unresolved items. The status of these items is discussed in the enclosed report.

In accordance with Section 2.790 of the NRC's "Rules of Practice", Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you (or your contractor) believe to be proprietary, it is necessary that you make a written application within 20 days to this office to withhold such information from public disclosure. Any such application must include a full statement of the reasons on the basis of which it is claimed that the information is proprietary, and should be prepared so that proprietary information identified in the application is contained in a separate part of the document. If we do not hear from you in this regard within the specified period, the report will be placed in the Public Document Room.

Should you have any questions concerning this letter, we will be glad to discuss them with you.

Sincerely,

C. E. Murphy, Chief
Reactor Construction and Engineering
Support Branch

Enclosure:
See Page 2

Enclosure:
Inspection Report Nos. 50-250/80-14
and 50-251/80-12

cc w/encl:
H. E. Yaeger, Plant Manager
P. O. Box 013100
Miami, FL. 33101

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

MAY 1 - 1980

Report Nos. 50-250/80-14 and 50-251/80-12

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

Facility Name: Turkey Point Units 3 and 4

Docket Nos. 50-250 and 50-251

License Nos. DPR-31 and DPR-41

Inspection at Turkey Point site near Homestead, Florida

Inspectors: J. D. Wilcox, Jr. — 4/30/80 Date Signed

C. R. McFarland — 4/30/80 Date Signed

Approved by: J. K. Rausch, Acting Section Chief, RCES Branch — 4/30/80 Date Signed

SUMMARY

Inspection on April 10-11, 1980

Areas Inspected

This routine, unannounced inspection involved 24 inspector-hours on site in the areas of construction status, licensee action on previous inspection findings, and review of storage records.

Results

Of the areas inspected, no items of noncompliance or deviations were identified.

DETAILS

1. Persons Contacted

Licensee Employees

*J. K. Hays, Plant Supervisor, Nuclear
*F. W. Rothermel, Project Construction Supervisor
*J. M. Feith, Quality Assurance Operation Supervisor
*D. W. Jones, Quality Control Supervisor
T. Young, Lead Area Construction Supervisor

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

Other Organizations

Bechtel Power Corporation (Bechtel)

*J. Gregg, Project Engineer
A. K. Beckman, Lead Civil Engineer
A. J. Irving, Lead Mechanical Engineer

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on April 11, 1980 with those persons indicated in Paragraph 1 above. The scope of the inspection was reviewed. The licensee was advised that no items of noncompliance were identified during this inspection.

3. Licensee Action on Previous Inspection Findings

(Open) 250/251/79-25-02, "Over expanded tubes". FP&L is performing additional evaluation on this item. This item will remain open pending FP&L evaluation.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Independent Inspection Effort

a. The purpose of this inspection was to implement an effective orderly transfer of Turkey Point steam generator repair project principal inspection responsibilities from J. D. Wilcox, Jr. to C. R. McFarland. Mr. McFarland was informed of Turkey Point steam generator repair project organization and introduced to key site management, engineering and QA/QC personnel.

All six steam generator replacement lower assemblies are in the lay down area at the Turkey Point site and this area was identified to Mr. McFarland. Mr. McFarland was briefed on the health physics requirements of Turkey Point station and familiarzied with close out procedures.

b. Steam Generator Repair - Storage of steam generator lower assemblies

The inspector examined all six steam generator lower assemblies in the laydown area next to Unit 4. It was noted in the QC nitrogen purge log that there was an apparent nitrogen leak until March 2, 1980 on steam generator No. 3002. Sound engineering judgement was used in the resolution, correction and reestablishment of the nitrogen blanket.

No items of noncompliance or deviations were noted in this area.