UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
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ATLANTA, GEORGIA 30303-8931

October 29, 2001

Florida Power and Light Company
ATTN: Mr. J. A. Stall
Senior Vice President of Nuclear Operations
P. O. Box 14000
Juno Beach, FL 33408-0420

SUBJECT: TURKEY POINT NUCLEAR PLANT - NRC INTEGRATED INSPECTION REPORT 50-250/01-05 AND 50-251/01-05

Dear Mr. Stall:

On September 29, 2001, the NRC completed an inspection at your Turkey Point Units 3 and 4. The enclosed report documents the inspection findings which were discussed on October 3, 2001, with Mr. McElwain and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, no findings of significance were identified.

Since September 11, 2001, your staff has assumed a heightened level of security based on a series of threat advisories issued by the NRC. Although the NRC is not aware of any specific threat against nuclear facilities, the heightened level of security was recommended for all nuclear power plants and is being maintained due to the uncertainty about the possibility of additional terrorist attacks. The steps recommended by the NRC included increased patrols, augmented security forces and capabilities, additional security posts, heightened coordination with local law enforcement and military authorities, and limited access of personnel and vehicles to the site.

The NRC continues to interact with the Intelligence Community and to communicate information to you and your staff. In addition, the NRC has monitored maintenance and other activities which could relate to the site's security posture.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of the NRC's document system (ADAMS). Adams is accessible from the NRC Web site at http://www.nrc.gov/NRC/ADAMS/index.html (the Public Electronic Reading Room).

Sincerely,

***/RA/***

John D. Monninger, Acting Chief
Reactor Projects Branch 3
Division of Reactor Projects

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

Enclosure: Inspection Report 50-250/01-05, 50-251/01-05

cc w/encl: (See page 3)

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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

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|---|---|
| Docket Nos: | 50-250, 50-251 |
| License Nos: | DPR-31, DPR-41 |
| Report No: | 50-250/01-05, 50-251/01-05 |
| Licensee: | Florida Power & Light Company (FPL) |
| Facility: | Turkey Point Nuclear Plant, Units 3 & 4 |
| Location: | 9760 S. W. 344th Street<br>Florida City, FL 33035 |
| Dates: | July 1 - September 29, 2001 |
| Inspectors: | C. Patterson, Senior Resident Inspector<br>R. Reyes, Resident Inspector<br>D. Lanyi, Resident Inspector (Saint Lucie)<br>G. Kuzo, Senior Radiation Protection Specialist (Sections 20S1-20S3, 40A1) |
| Approved by: | J. Monninger, Acting Chief<br>Reactor Projects Branch 3<br>Division of Reactor Projects |

Enclosure

# SUMMARY OF FINDINGS

IR 05000250-01-05, IR 05000251-01-05 on 07/01-09/29/01, Florida Power & Light Company, Turkey Point Nuclear Power Plant, Units 3 & 4, Resident Inspector Integrated Inspection Report.

The inspection was conducted by the resident inspectors and a regional senior radiation protection specialist. No findings of significance were identified by NRC inspectors during this inspection. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at http://www.nrc.gov/NRR/OVERSIGHT/index.html.

A. Inspector Identified Findings

None

B. Licensee Identified Violations

Violations of very low safety significance which were identified by the licensee have been reviewed by the inspectors. Corrective actions taken or planned by the licensee appear reasonable. The violations are listed in Section 4OA7 of this report.

## Report Details

Summary of Plant Status

Unit 3 operated at or near full power during this inspection period with the following exceptions: power was reduced on July 2 -3 , 2001, to attempt to repair a small condenser tube leak; power was reduced on July 6-7, 2001, to repair a condenser tube leak; the unit was taken off-line on August 9-12, 2001, to repair a main generator hydrogen leak; the unit was manually tripped at 15% power on August 15, 2001, due to low condenser vacuum; and the unit was taken off-line on September 29, 2001, to begin a refueling outage.

Unit 4 operated at or near full power during this inspection period.

### 1. REACTOR SAFETY

**Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity (Reactor-R)**

1R04 Equipment Alignment

a. Inspection Scope

The inspectors verified by partial walkdown inspections, the alignment of redundant trains/systems when the other train/system was out-of-service. The inspectors reviewed the licensee's flow path verification procedure, Updated Final Safety Analysis Report (UFSAR) system description, and system drawings to determine that the systems were correctly aligned. The below two systems were inspected by partial walkdown:

- Alignment of 4B, 3A, 3B, Emergency Diesel Generators (EDGs) while the 4A EDG was out of service for planned modifications
- Alignment of Component Cooling Water (CCW) system while both the 3A CCW pump and 3C CCW heat exchanger were out of service for planned maintenance

The inspectors performed a detailed walkdown of the auxiliary feedwater system (AFW). A flow path verification of train one using the system drawings was performed while train two was being tested. The inspectors also verified that ongoing maintenance activities and associated equipment clearance for repair of a steam trap did not affect system operation. The inspectors reviewed the system health report and maintenance rule quarterly reports to verify equipment issues were being addressed. The inspectors verified that corrective action to correct pump shaft leakage was planned/scheduled by reviewing an active modification in the AFW cage area that installs a crane monorail to facilitate pump replacement/overhaul.

The below system was inspected by a detailed walkdown:

- Alignment of train 1 of AFW while testing the Unit 4 train 2 AFW

b. Findings

No findings of significance were identified.

1R05 Fire Protection

a. Inspection Scope

The inspectors toured selected plant areas to evaluate conditions related to control of transient combustibles and ignitions sources, the material condition and operational status of fire protection systems, and selected fire barriers used to prevent fire damage or fire propagation. The inspectors verified the readiness of halon bottles and control panels used for the cable spreading room and inverter room. The inspectors verified the readiness of portable fire extinguishers and fire doors. The inspectors ensured these activities were consistent with the licensee's Fire Protection Plan and 10 CFR Part 50, Appendix R. The following areas were inspected:

- Inverter Room behind Control Room
- Cable Spreading Room
- 3A EDG Room
- 3B EDG Room
- 3A EDG Fuel Storage Room
- 3B EDG Fuel Storage Room

b. Findings

No findings of significance were identified.

1R07 Heat Sink Performance

a. Inspection Scope

The inspectors reviewed thermal performance test data for the safety related high risk significant CCW Heat Exchangers to verify the heat transfer capabilities were adequate and the testing frequency was sufficient to detect degradation prior to loss of heat removal capabilities below design basis values. Test results obtained on July 5, 2001, on Unit 3 and Unit 4, were reviewed and discussed with engineering. The inspectors evaluated these activities using 10 CFR Part 50, Appendix A Criteria 44, 45, 46; Technical Specifications; Updated Final Safety Analysis Report; licensee Design Basis Summary Documents; and applicable parts of NRC Generic Letter 89-13, Service Water System Problems Affecting Safety Related Equipment.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification

a. Inspection Scope

On August 14, 2001, the inspectors observed operator requalification training to assess licensed operator performance. During the training evaluation that focused on shutdown operations, plant cooldown, and draining of the reactor coolant system, the inspectors

verified that plant high-risk activities and lessons learned from past plant experiences were discussed. The inspectors verified with the simulator instructor that critique issues were being addressed. The inspectors verified that simulator fidelity was being maintained for recent plant modifications. The inspectors observed the crew's ability to perform timely actions prescribed by the procedures and observed that oversight and direction provided by crew supervisors was consistent with licensee emergency procedures. The inspectors verified that crew emergency plan classifications and notifications were consistent with the licensee's Emergency Response Plan and 10 CFR 50.72.

b. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation

a. Inspection Scope

The inspectors assessed the effectiveness of maintenance on selected structures, systems, and components scoped into the maintenance rule, and verified procedural requirements specified in procedure 0-ADM 728, Maintenance Rule Implementation. The inspector reviewed the characterization of failures, safety significance classifications, and the appropriateness of performance criteria and corrective actions. The inspector verified by a detailed review of the Event Response Team Report that all corrective actions were adequately addressed by the maintenance rule or other licensee corrective action program requirements. The following list of Condition Reports (CRs) was reviewed:

- CR 01-1381 4A Main Steam Isolation Valve (MSIV) Bypass Valve Loss of Power
- CR 01-1477 Residual Heat Removal (RHR) Heat Exchanger Room Sump Level Alarm
- CR 01-1561 Intermediate Range, N-3-35, High Level Alarm Failed
- CR 01-1562 Intermediate Range, N-3-36, Spiking
- CR 01-1573 Event Response Team - Manual Trip
- CR 01-1697 4B Intake Cooling Water (ICW) Pump Discharge Check Valve

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control

a. Inspection Scope

The inspectors reviewed the following emergent work items, as described in the referenced CRs. The inspectors verified that the emergent work activities were adequately planned and controlled, as described in 0-ADM-210, On-Line Maintenance/Work Coordination and 0-ADM-225, On Line Risk Assessment and

Management. The inspectors verified that, as appropriate, contingencies were in place to reduce risk, minimize time spent in increased risk configurations, and to avoid initiating events. The inspectors verified that the CR concerning the dropped mobile crane was comprehensive addressing the entire rigging program, use of industry experience, human performance, and safety implications. The following list of CRs was reviewed:

- CR 01-1197 Control Room Heating Ventilation and Air-conditioning (HVAC) Low Flow Switch
- CR 01-1538 NIS-N-35 Bistable Failed to Clear until 9.5%
- CR 01-1432 CCW Pump Breaker
- CR 01-1420 Wet Annular Burnable Absorber Placement Error
- CR 01-1537 Unit 3 Steam Flow Transmitter, FT-3-474
- CR 01-1206 Dropped Mobile Crane

b. Findings

No findings of significance were identified.

1R14 Personnel Performance During Non-routine Plant Evolutions and Events

a. Inspection Scope

The inspectors observed portions of the Unit 3 downpower on July 2 and July 6, conducted to locate and repair a condenser tube leak, to verify these evolutions were properly conducted. The inspectors verified that the evolutions were thoroughly planned and conducted in accordance with plant procedures. The inspectors reviewed procedure 3-ONOP-071.1, Secondary Chemistry Deviation from Limits, to verify the proper action was taken.

In early August 2001, the inspectors verified that the licensee closely monitored Unit 3 generator hydrogen leakage and took safe actions to repair the leak. The inspectors verified that the evolution of taking the unit off-line, purging the generator to allow the repair, and returning the unit to operation were properly conducted. The inspectors evaluated control boundaries in the plant for areas that were roped off to ensure access was restricted around the area of the hydrogen leak.

The inspectors reviewed operator actions associated with the Unit 3 manual reactor trip on August 15, 2001, during the downpower to repair a condenser tube leak. The inspectors verified that operators took prompt action per plant procedures to initiate a manual trip following indications of low condenser vacuum. The inspectors verified that appropriate corrective actions were taken.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed selected operability evaluations affecting mitigating systems and barrier integrity to determine whether the operability was justified and whether any unrecognized increase in risk had occurred. The inspectors verified procedural requirements as described in 0-ADM-518, Condition Reports. The inspectors evaluated the operability evaluations for consistency with the Technical Specifications, the Final Safety Analysis Report, and NRC Generic Letter 91-18, Revision 1, Information to Licensees Regarding NRC Inspection Manual Section on Resolution of Degraded And Nonconforming Conditions. The following list of CRs were reviewed:

- CR 01-1417 Direct Current Breaker Control Power Transfer Switch
- CR 01-1197 Control Room HVAC Supply Fan
- CR 01-1382 RHR Valve 4-752B Reach Rod
- CR 01-1383 “B” AFW Pump Trip & Throttle Valve Failed Stroke Time
- CR 01-1503 Unit 3 AFW Flow Controller Settings
- CR 01-1528 4A EDG Inoperable Due to Control Panel Ventilation Fan Off

b. Findings

No findings of significance were identified.

1R16 Operator Workarounds

a. Inspection Scope

The inspectors reviewed the operator workarounds to determine if the cumulative effects would negatively impact operator actions during a plant transient. By reviewing the list of operator workarounds listed in the plan of the day package, the inspector verified that operations personnel remained sensitive to operator workarounds. The inspectors reviewed the below workarounds to determine whether the cumulative evaluations were performed as described in licensee procedure ODI-CO-016, Operator Workaround Screening Checklist:

- CR 01-0853 Unit 3 Turbine Vibration
- CR 01-1522 MSIV Bypass MOV’s

b. Findings

No findings of significance were identified.

1R17 Permanent Plant Modifications

a. Inspection Scope

The inspectors evaluated several Plant Change/Modifications (PC/Ms) to verify that the modified system designs had not been degraded, and that the modifications had not left

the plant in an unsafe condition. The inspectors verified that the modifications were performed in accordance with the requirements 10 CFR 50.59, the Technical Specifications, and Final Safety Analysis Report. The inspectors attended briefings concerning implementation of each of the below listed modifications to verify there were no adverse impacts on plant operations:

- PC/M 01-025 Replacement of Primary Water Flow Transmitter to Blender
- PC/M 01-043 Control Room HVAC Flow Switch Setpoint Change

b. Findings

No findings of significance were identified.

1R19 Post Maintenance Testing

a. Inspection Scope

For the post maintenance tests listed below, the inspectors reviewed the test procedures and either witnessed the testing and/or reviewed test records to determine whether the scope of testing adequately verified that the work performed was correctly completed and demonstrated that the affected equipment was functional and operable. The inspectors verified that the requirements of procedure 0-ADM-737, Post Maintenance Testing, were incorporated into test requirements. The inspectors reviewed the following list of PMTs:

- WO 30021799-01 "C" AFW Pump Relief Valve Test
- TP 01-014 Testing of Unit 4 Primary Water Flow Transmitter to Blender
- WO 30016648-01 3A EDG Tie Breaker
- 4 - OP - 005 Unit 4 Startup Transformer
- WO 31014550 4CD 1A Air Compressor

b. Findings

No findings of significance were identified.

1R20 Refueling and Outage Activities

a. Inspection Scope

The inspectors evaluated planned outage activities for the Unit 3 refueling outage which began on September 29, 2001. The inspectors verified that risk reduction methodologies were developed to control plant configuration. In assessing risk management, the inspectors used applicable Technical Specifications, the Final Safety Analysis Report, and guidance described in NRC Generic Letter 87-12, Loss of Residual Heat Removal While the Reactor Coolant System is Partially Filled; Generic Letter 88-17, Loss of Decay Heat Removal; Generic Letter 98-02, Loss of Reactor Coolant Inventory and Associated Potential for Loss of Emergency Mitigation Functions while in

a Shutdown Condition; and NRC Manual Chapter 0609, Appendix G, Shutdown Mitigation Capability.

Outage Plans

The inspectors verified by periodic attendance at weekly outage planning meetings that the licensee was considering risk, industry experience, and lessons learned in planning the refueling outage. The inspectors reviewed the safety system protection plan and plant procedure O-ADM-051, Outage Risk Assessment and Control, to insure that a defense in depth concept to monitor safe operations and avoid risk was used.

Monitoring of Shutdown Activities

The inspectors witnessed a portion of plant shutdown activities in the control room on September 30, 2001, to verify the cooldown rate was within the restrictions of the plant T.S. The inspectors verified activities were conducted in accordance with plant procedure 3-GOP-305, Hot Standby to Cold Shutdown; and 3-OSP-041.7, Reactor Coolant System Heatup and Cooldown Temperature Verification.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing

a. Inspection Scope

The inspectors verified by witnessing surveillance tests and/or reviewing test data, that the selected testing met the TS, the UFSAR, and licensee procedure requirements; demonstrated the systems were capable of performing their intended safety functions; and ensure the systems operational readiness. The following surveillances were reviewed:

- 4-OSP-059.10 Determination of Quadrant Power Tilt Ratio
- 4-OSP-059.5 Power Range Nuclear Instrumentation Shift Checks and Daily Calibrations
- 0-OSP-025.1 Control Room Emergency Ventilation System Operability Test
- 3-OSP-049.1 Unit 3 - RPS Logic Test Train “B”
- 4-OSP-019.1 Intake Cooling Water Inservice Test
- 4-OSP-023.1 Diesel Generator Operability Test (4A Local Rapid Start)

b. Findings

No findings of significance were identified.

**Cornerstone: Emergency Preparedness (EP)**

1EP6 Drill Evaluation

a. Inspection Scope

The inspectors attended the third quarter Emergency Preparedness Drill which was held on August 7, 2001, and observed drill activities in the Technical Support Center. The inspectors reviewed the classification, notification, and protective actions recommendations to verify timely and accurate classification and notification of events. The inspectors observed the licensee critique of the drill to verify that identified weaknesses and deficiencies were discussed.

b. Findings

No findings of significance were identified.

## 2. RADIATION SAFETY

**Cornerstone: Occupational Radiation Safety (OS)**

2OS1 Access Control to Radiologically Significant Areas

a. Inspection Scope

During the weeks of July 9-14, 2001, and September 10-14, 2001, the inspectors evaluated administrative and engineering controls and their implementation for high radiation area maintenance and operational activities conducted in accordance with the following Radiation Work Permits (RWPs):

- RWP Number (No.) 01-0200, Unit 3 (U 3) Spent Fuel Pool (SFP) Transfer Canal: Inspect/Repair/Operate Fuel Transfer System Including All Support Work
- RWP No. 01-0406, Unit 4 (U 4) Containment - Power Entry (Very High Radiation Area [VHRA]/Locked High Radiation Area [LHRA]): Check/Reposition Breaker Supplying Power to "D" 10 Path Including Support Work
- RWP No. 01-1036, Radioactive Waste Building (RWB) High Level Storage Area (HLSA)/North Filling Room/ South Filling Room: Vessel Sluice, Installation and Removal of CNSI Equipment Including Placement in HLSA and All Support Work
- RWP No. 01-1037, U 3 SFP Heat Exchanger (HX) Room/Auxiliary Building 18 foot Elevation/Auxiliary Building 10 foot Elevation; Transfer Resin from U 3, SFP HX Demineralizer to the Spent Resin Storage Tank (SRST), Including All Set-Up and Monitoring Activities
- RWP No. 01-1043, Radiologically Controlled Area (RCA)/U 3 Charging Pump Room/RWB HLSA; Install Change-out Chemical Volume Control System (CVCS) Filters Including Placement in HLSA and All Support Work

The inspector conducted the evaluations through attendance at pre-job briefings, examination of planning and task details, review of job planning, and observations of work-in-progress and Health Physics (HP) technician job coverage. The conduct of selected radiation and contamination surveys was observed and results discussed. Electronic alarming dosimetry (EAD) setpoints were assessed and personnel EAD exposure results were reviewed. During tours of auxiliary building and radioactive waste areas, the inspectors observed and evaluated administrative and engineering controls for access to high radiation, locked-high radiation, and very high radiation areas. In addition, the inspectors reviewed, discussed, and assessed the 2001 calendar year to date implementation of selected VHRA and LHRA key controls as specified in Health Physics Administrative (HPA) procedure 0-HPA-021, Health Physics Restricted Area Key Control, revised May 12, 1998. Five condition reports documented for radiological control program activities subsequent to July 1, 2001, were reviewed by the inspector and discussed with responsible licensee representatives.

The inspector reviewed the activities against the UFSAR, TS, and 10 CFR Part 20 requirements. In addition, U 3 resin transfer activities and controls were evaluated against Health Physics Surveillance Procedure 0-HPS-053.3, Posting and Controls for Resin Transfers from the Unit 3 SFP Demineralizers to SRST.

b. Findings

No findings of significance were identified.

2OS2 "As Low As Reasonably Achievable" Program Planning and Controls

a. Inspection Scope

The inspector evaluated the licensee's "As Low As Reasonably Achievable" (ALARA) program implementation and dose expenditure results. During the week of September 10, 2001, the inspector evaluated the ALARA program implementation and effectiveness for the U 3 CVCS filter change-out and the U 3 SFP HX resin transfer conducted under RWP Nos. 01-1043 and 01-1037. The review included task details, ALARA job evaluations, job histories, and the projected and final recorded collective dose expenditures.

For the upcoming U 3 End-of-Cycle (EOC) 18 refueling outage (RFO) activities, the inspectors discussed dose rate and cumulative dose expenditure data trends associated with selected systems and equipment during past refueling outages; reviewed July and August 2001 ALARA Review Committee meeting minutes; discussed general dose reduction initiatives; and examined individual details of specific ALARA job evaluations. The inspectors discussed and reviewed dose reduction issues and action plans documented in Self-Assessment HP-01-01, Reduced Outage Radiation Exposure, dated March 2001. In addition, general dose reduction initiatives including proposed U3 EOC 18 RFO shutdown chemistry and cleanup, worker dose tracking and reporting, and improvements to automated remote monitoring capabilities were discussed and assessed. Implementation of the cobalt reduction program was inspected through examination of Purchase Order and Manufacturer Specifications records for three recent valve replacement orders. Knowledge of ALARA program guidance and staff

proficiency in program implementation were appraised by the inspector during discussions of selected outage tasks with responsible supervisors and managers. The inspectors discussed and reviewed detailed ALARA initiatives and planning with the responsible department manager or technical representatives for the following U 3 EOC 18 RFO activities:

- Steam Generator Eddy Current Testing and Sludge Lance Bundle Flush
- Reactor Head and Control Rod Drive Mechanism Work and Inspection
- Reactor Coolant Pump Maintenance
- U 3 Containment Scaffolding
- Health Physics Outage Coverage
- In-Service Inspection Activities
- Inspection, Overhaul, and Testing of Motor Operated Valves
- Outage Operations

The inspector reviewed program guidance and implementation against the facility's 2001 ALARA goals, UFSAR, 10 CFR Part 20 requirements, TS, and the following procedures:

- Nuclear Chemistry Operating Procedure 0-(NCOP)-001.1, Primary Chemistry Control During Shutdown
- Administrative Procedure (ADM)-602, ALARA Program
- Health Physics Administrative Procedure (HPA)-001, Radiation Work Permit Initiation and Termination
- HPA-071, ALARA Job Reviews
- Nuclear Engineering Quality Instruction 3/13, ALARA Design Requirements
- Procurement Engineering Standard-001, Procurement Engineering Processes and Responsibilities

b. Findings

No findings of significance were identified.

2OS3 Radiation Monitoring Instrumentation

.1 Portable Radiation Monitoring Instrumentation

a. Inspection Scope

During the week of July 9-14, 2001, the inspector evaluated availability and operability of radiation monitoring and whole-body counting instrumentation used for individual personnel monitoring. The inspector assessed the calibration and selected daily operational performance data for selected direct radiation, contamination, and airborne monitoring instrumentation. Operational data for instruments available or used during a U 4 "at power" containment entry and for resin transfer activities were evaluated. The inspector reviewed instrumentation including a stand-up whole-body counter, ASP-1 neutron detectors, RO2 ion chambers, RM 14 geiger mueller detectors, telescan detectors, low-beta proportional counters, and air monitoring systems. Detection capabilities and limits were reviewed by the inspector for the continuous airborne monitoring instruments. In addition, calibration data were reviewed for instruments

previously used to monitor a June 19, 2001, U 4 "at power" containment entry and a June 27, 2001, radioactive waste shipment.

b. Findings

No findings of significance were identified.

.2 Area Radiation Monitoring Instrumentation

a. Inspection Scope

The inspector evaluated the operability and availability of Area Radiation Monitor (ARM) equipment and instrumentation.

The inspector observed ARM installed equipment locations and material condition; verified local, remote, and control room indicator readouts; and reviewed selected system warning and alarm set-points. Calibration data were reviewed by the inspector for the following ARM equipment:

- U 4, Radiation Detector (RD)-4-1404, Personnel Hatch ARM, October 2000
- U 4, RD-4-1405, Containment Operating Floor ARM, September 2000
- U 4, RD-4-1408, Spent Fuel Pit Transfer Canal ARM, October 2000
- U 4, RD-4-1420, Control Room Fuel Pool Area, ARM, February 2001
- U 4, RD-4-1422, Spent Fuel Pool South Wall Area, ARM, May 2000
- U 4, Containment High Range Radiation Monitor (RAD)-4-6311, "A" &"B" Channels, October 2000

The ARM calibration and set-point data were evaluated against applicable sections of the UFSAR, TS, NUREG-0737 Action Item II.F.1, and applicable Design Base Documents.

b. Findings

No findings of significance were identified.

.3 Respiratory Protection Program

a. Inspection Scope

The inspector reviewed the adequacy of the licensee's respiratory protection program to provide self-contained breathing apparatus (SCBA) for workers entering or exposed to immediately dangerous to life and health (IDLH) areas or airborne radiological areas.

The inspector observed staged emergency SCBA equipment in lockers maintained for the control rooms, radiologically controlled area (RCA) entrance area, and the Operations Support Center. Respiratory equipment types and quantities, and material condition were assessed. Air quality data for the licensee's air cascade system from January 1, through June 30, 2001, was reviewed by the inspector. Control room operators and other Health Physics emergency response personnel were interviewed to

assess staff proficiency in SCBA equipment use and respiratory protection program knowledge. Training, fit testing, and medical qualification statements for 10 staff members were reviewed to evaluate implementation of the respiratory protection program for personnel designated as potential SCBA equipment users.

The inspector evaluated the program against the licensee's UFSAR, TS, procedural requirements, as well as Information Notices 98-20 and 99-05. Additionally, compliance with 10 CFR 20, Subpart H, Respiratory Protection and Controls to Restrict Internal Exposure in Restricted Areas, and 10 CFR 20, Appendix A, Assigned Protection Factors for Respirators, was verified. The following procedures were selectively reviewed:

- 0-ADM -041, Plant Turkey Nuclear (PTN) Respiratory Protection Procedure
- 0-Health Physics Technical (HPT) Procedure-061.7, Breathing Air Quality Analysis
- 0-Health Physics Surveillance (HPS) Procedure-061.2,Scott Air-Pak Bottle Charging
- 0-HPS-063.2, Maintenance and Accountability of Respiratory Protection Equipment
- 0-HPS-063.4, Selection and Issue of Respiratory Protection Equipment

b. Findings

No findings of significance were identified.

## 4 OTHER ACTIVITIES

### 4OA1 Performance Indicator Verification

#### .1 RCS Activity and RCS Leak Rate Performance Indicator Verification

a. Inspection Scope

The inspector reviewed the accuracy and completeness of the Reactor Coolant System (RCS) activity and RCS leak rate that was reported to NRC for Unit 3 and Unit 4. The inspector reviewed data for the fourth quarter of 2000 and the first quarter of 2001. Surveillance data and surveillance frequency was verified to be within TS surveillance requirements. Surveillance procedures were reviewed to assess adequacy and method of obtaining the data. Condition reports applicable to the indicators were reviewed to verify completion of corrective actions.

b. Findings

No findings of significance were identified.

.2 Occupational Radiation Safety Performance Indicator Verification

a. Inspection Scope

The Occupational Exposure Control Effectiveness performance indicator results for the Occupational Radiation Safety Cornerstone were reviewed for the period September 1, 2000, through July 9, 2001. The inspectors reviewed data reported to the NRC, and sampled and evaluated applicable Corrective Action Program Condition Reports and selected Health Physics Program records. The reviewed records included health physics shift supervisor logs, radiological event reports, exposure investigation reports, internal exposure evaluations, skin dose assessments, and exposure discrepancy report data.

b. Findings

No findings of significance were identified.

.3 Public Radiation Safety Performance Indicator Verification

a. Inspection Scope

The inspectors reviewed the Radiological Control Effluent Release Occurrences performance indicator results for the Public Radiation Safety Cornerstone from September 1, 2000, through July 9, 2001. The inspectors reviewed data reported to the NRC and evaluated applicable Corrective Action Program Condition Reports and selected radiological quarterly liquid and gaseous liquid and gaseous effluent release data, process radiation monitor out-of-service data, and abnormal release results.

b. Findings

No findings of significance were identified.

4OA3 Event Follow-up

.1 (Closed) LER 50-250,251/01-001-00, Control Room Emergency Ventilation System Inoperable due to Mispositioned Damper

On June 8, 2001, the licensee found during a monthly system operability test that the backup emergency supply fan did not start on a simulated failure of the primary emergency supply fan. Due to a mispositioned damper, the air flow was such that the low flow actuation setting was not reached. The system was determined to be inoperable in the as-found condition. TS 3.7.5 requires that the Control Room Emergency Ventilation System shall be operable. This failure was determined to not significantly degrade plant safety based on the ability to manually start the fan and provide the required pressurization and filtration. A source term analysis indicated that the control room limits would not exceed General Design Criterion 19, Control Room. The probable root cause was determined to be inadequate administrative controls of the damper position. The licensee initiated a number of corrective actions in CR 01-1197. These actions included a locking device for the damper and establishment of

administrative controls. This issue is dispositioned as a licensee non-cited violation in section 4OA7. This LER is closed.

.2 (Closed) LER 50-250/01-002-00, Both Trains of AFW Rendered Inoperable by a Single Event

On August 3, 2001, the licensee discovered on Unit 3 that both trains of the AFW system were inoperable due to the controllers for the flow control valves being mispositioned. Technical Specification 3.7.1.2 requires the total AFW flow be set to 373 gallons per minute (gpm); however, train one was set to 350 gpm and train two was set to 355 gpm. The root cause was determined to be failure to follow procedures, in that a binder was placed on the main control board which contacted and manipulated the raised thumb wheels of the controllers. The safety significance of the event was limited as the modified AFW settings were still above the required design flow of 310 gpm. The licensee initiated a number of corrective actions in CR 01-1503. These actions included placing a protective cover over the controllers, personal action, and training. This issue is dispositioned as a licensee non-cited violation in section 4OA7. This LER is closed.

4OA6 Meetings

Exit Meeting Summary

The inspectors presented the inspection results to Mr. McElwain and other members of licensee management at the conclusion of the inspection on October 3, 2001. The licensee acknowledged the findings presented. The inspectors asked the licensee whether any of the material examined during the inspection should be considered proprietary. No proprietary information was identified.

4OA7 Licensee Identified Violations.

The following findings of very low significance were identified by the licensee and are violations of NRC requirements which meet the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600 for being dispositioned as Non-Cited Violations (NCVs).

If you deny these non-cited violations, you should provide a response with the basis for your denial, within 30 days of the date of this inspection report, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region II; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Turkey Point facility.

| NCV Tracking Number | Requirement Licensee Failed to Meet |
|---|---|
| NCV 50-250,251/01-001-00 | TS 3.7.5 requires that the Control Room Emergency Ventilation System shall be operable. The system was found inoperable during surveillance testing due to failure of a backup emergency supply fan to start as a result of a |

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|---|---|---|
| | | mispositioned damper effecting the low flow actuation setting. This issue was described in CR 01-1197. (Green) |
| NCV | 50-250/01-002-00 | TS 3.7.1.2 requires two independent auxiliary feedwater trains and associated flow paths be operable. Both trains were determined inoperable due to the flow control valve automatic flow controllers being mispositioned and not capable of providing the TS required flow. This issue was described in CR 01-1503. (Green) |

## PARTIAL LIST OF PERSONS CONTACTED

Licensee

E. Avella, Maintenance Manager
S. Franzone, Licensing Manager
G. Hollinger, Protection Services Manager
T. Jones, Plant General Manager
M. Jurmain, Work Control Manager
J. Kirkpatrick, Training Manager
M. Lacal, Operations Manager
D. Lowens, Quality Assurance Manager
J. McElwain, Site Vice-President
E. Thompson, License Renewal Project Manager
D. Tomaszewski, Site Engineering Manager
S. Wilsa, Health Physics Supervisor
A. Zielonka, System Engineering Manager

Other licensee employees contacted include office, operations, engineering, maintenance, chemistry/radiation, and corporate personnel.

## ITEMS OPENED AND CLOSED

Opened and Closed During this Inspection

| | | |
|---|---|---|
| 50-250,251/01-001-00 | NCV | Control Room Emergency Ventilation System Inoperable (4OA7) |
| 50-250/01-002-00 | NCV | Both Trains of AFW Inoperable (4OA7) |

Previous Items Closed

| | | |
|---|---|---|
| 50-250,251/01-001-00 | LER | Control Room Emergency Ventilation System Inoperable due to Mispositioned Damper (4OA3) |

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|---|---|---|
| 50-250/01-002-00 | LER | Both Trains of AFW Rendered Inoperable by a Single Event (4OA3) |