



UNITED STATES  
 NUCLEAR REGULATORY COMMISSION  
 REGION II  
 101 MARIETTA STREET, N.W., SUITE 2900  
 ATLANTA, GEORGIA 30323-0199

Report Nos.: 50-250/95-02, 50-251/95-02

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

Docket Nos.: 50-250 and 50-251

License Nos.: DPR-31 and DPR-41

Facility Name: Turkey Point Plant Units 3 & 4

Inspection Conducted: January 17-20, 1995, and January 30-February 3, 1995

Inspector: Edwin Lea, Jr. 2/24/95  
 Edwin Lea, Jr. Date Signed

Accompanying Personnel: Paul Steiner

Approved by: Lawrence L. Lawyer 2/27/95  
 Lawrence L. Lawyer, Chief Date Signed  
 Operator Licensing Section  
 Operations Branch  
 Division of Reactor Safety

SUMMARY

Scope:

This routine, announced inspection was conducted in the area of Turkey Point's licensed operator requalification training program during the period of January 17, 1995, to February 3, 1995. The purpose of the inspection was to (1) verify that the licensee's requalification program for reactor operators (ROs) and senior reactor operators (SROs) ensures safe power plant operation by evaluating how well the individual operators and crews had mastered training objectives; and (2) assess the licensee's effectiveness in ensuring that the individuals who are licensed to operate the facility satisfy the conditions of their licenses as specified in 10 CFR 55.53.

Results:

The inspectors concluded that the licensee had adequately conducted requalification activities.

The inspectors identified an Inspector Follow-up Item (IFI) concerning the method used to select examination topics (Paragraph 2.b).

The inspectors identified an IFI concerning the development of alternate path job performance measurements (JPMs) (Paragraph 2.b).

The inspectors identified an IFI concerning the number of in-plant JPMs administered to operators (Paragraph 2.c).

The inspectors identified a strength in the licensee practice of re-performing missed JPMs (Paragraph 2.c).

The inspector identified a strength in the training department's critique techniques (Paragraph 2.c).

The inspectors identified a IFI concerning licensed operators' knowledge of Probabilistic Safety Assessment (Paragraph 2.e).

The inspectors identified one non-cited violation for the failure of a licensed operator to perform a complete plant tour as part of an operator's reactivation process (paragraph 2.f).

## REPORT DETAILS

### 1. Persons Contacted

#### Licensee Employees

- \*T. Abbatiello, Site Quality Manager
- \*K. Beatty, Manager, Nuclear Training Corporate
- \*J. Danek, Corporate Health Physics
- \*G. Hollinger, Training Manager
- \*D. Jernigan, Plant General Manager
- \*H. Johnson, Operations Manager
- \*V. Kaminskas, Service Manager
- \*J. Knorr, Regulation & Compliance Specialist
- \*J. Lindsay, Health Physics Supervisor
- \*T. Natale, Operations Training Supervisor
- \*T. Plunkett, Vice President
- \*R. Rose, Materials Manager
- \*A. Singer, Operations Supervisor
- \*E. Weinkam, Licensing Manager

Other licensee employees contacted included instructors, engineers, technicians, operators, and office personnel.

#### NRC Personnel

- \*B. Desai, Resident Inspector
- \*J. King, NRR Intern

\*Attended exit interview

### 2. Licensed Operator Requalification Program Evaluation (71001)

#### a. Summary

The NRC conducted a routine, announced inspection of the Turkey Point Plant Units 3 & 4 licensed operator requalification program during the period January 17, 1995, to February 3, 1995. The purpose of the inspection was to (1) verify that the licensee's requalification program for reactor operators (ROs) and senior reactor operators (SROs) ensures safe power plant operation by evaluating how well the individual operators and crews had mastered training objectives, and (2) assess the licensee's effectiveness in ensuring that the individuals who are licensed to operate the facility satisfy the conditions of their licenses as specified in 10 CFR 55.53. The inspection of the various requalification training activities provided the inspectors with information needed to determine if the licensee had included elements required to implement a training program that encompasses a systems approach to training. Based on the review of records and observation during the inspection, the inspectors concluded that the licensee had incorporate those elements required of

Enclosure



a training program which utilizes a systems approach to training. The inspectors also concluded that, for those areas inspected, the licensee had adequately administered requalification activities. The inspectors identified one non-cited violation for the failure of a licensed operator to perform a complete plant tour as part of an operator's reactivation process. The inspectors also identified four IFIs and two strengths.

b. Examination Development

The inspectors reviewed the licensee sample plan, associated procedures, and documentation. The review was performed to determine if the licensee's operation requalification training program incorporated those elements required to implement a training program as identified in 10 CFR 55.53. The inspectors concluded that the licensee's sample plan and procedure included many of the requirements specified in 10 CFR 55.53 and were constructed similar to guidelines of NUREG 1021. However, there was one aspect of the procedure which needed enhancement to assure that specific SRO required knowledge items were not excluded from examinations. The inspectors also reviewed JPMS and simulator scenarios for both the segment and annual operator licensing examinations. The scenarios developed for the examinations were determined to be challenging, and the JPMS were adequate.

The licensee selected test items per guidelines provided in procedure AG-016, "Development Phase - SAT," Revision 9, January 10, 1994. Procedure AG-016 section 3.4 stated in part, that "...all test items used in the examination should have Knowledges and Abilities (K/As) of greater than or equal to 3.0. Items with K/As less than 3.0 may be used with appropriate justification." Lectures given during the examination cycle were rated based on the K/A value times the number of hours lectured. All topics covered during the current examination year that were marked N/I were deselected for examination use based on a low K/A value.

One lecture on Introduction to Probabilistic Safety Assessment (PSA) was marked N/I for "K/A not identified or otherwise not available." This resulted in the topic being rated a value of 0, and was subsequently deselected based on low K/A values. In some instances fuel handling and refueling topics were deselected for examination purposes. Four of the five refueling lectures were deselected for examination use based on low K/A value or on Subject Matter Expert evaluation. The only refueling lecture selected was on Refueling Technical Specifications. Because the K/A values for ROs in the topic of refueling/fuel handling were, in general, less than 3.0, the average combined K/A for ROs and SRO was less than 3.0. This gives rise to the undesirable possibility that SROs could be excluded from evaluation on the topic of refueling and fuel handling. The licensee stated that the procedure would be reviewed and the process of

selecting topics for examinations would be enhanced. The method selected by the licensee for identifying topics for examinations will be tracked as Inspector Follow-up Item 50-250, 251/95-02-01

Following the inspectors' review of the JPM examination bank and the JPMs selected for the examinations, the inspectors concluded that the bank had a sufficient number of JPMs. However, the inspectors noticed that the JPM bank had a low number of alternate path JPMs. During the prep week, there were only six alternate path JPMs identified. Also, four of the six alternate path JPMs were concentrated in one area. By the second week of the inspection, the licensee had written 10 additional alternate path JPMs. During discussions with the licensee, the inspectors were informed that efforts were being made to increase the number of alternate path JPMs. The low number of alternate path JPMs was considered a weakness and will be tracked as Inspector Follow-up Item, 50-250, 251/95-02-02.

c. Examination Administration

The inspectors observed examination activities to assess the evaluators' effectiveness in conducting JPM and simulator examinations. The inspectors concluded that the licensee had conducted the examinations in accordance with procedural guidelines and that training department evaluators adhered to established guidelines when making assessments of operators performance. There was one instance in which an evaluator initially failed to assure that an operator received two in-plant JPMs.

As stated in the previous section, the JPMs used for the annual examination were adequate. However, the inspectors noted that the evaluators read the title of the JPM to the operator performing the JPM. In some instances, reading the title resulted in identifying the source of the problem or the actions the evaluator expected the operator to take. There were also instances in which information provided in the initial conditions, as well as the title, inappropriately relieved the operator of the need to evaluate plant conditions and determine a course of action to be taken based on his or her diagnosis.

By giving the title of the JPM and certain information in the initial conditions, the facility evaluator limited the usefulness of the JPM as a tool to evaluate the individual operator's ability to respond to abnormal events.

On the morning of February 3, 1995, an inspector observed an evaluator administer in-plant JPMs. At the completion of the operator's JPM set, the operator had only received one in-plant JPM. The evaluator was questioned concerning the number of in-plant JPMs performed by the operator. Procedure O-ADM-315, "Licensed Operator Continuing Training Program," Revision 1, December 8, 1994, committed to following the current revision of NUREG 1021 for the walkthrough



examination. NUREG 1021 specified that two in-plant JPMs be performed during the walkthrough examination. The licensee had originally selected two JPMs to be performed in the plant and one in the control room to complete the licensed operator's operating test requirements. The operator had performed two JPMs in the simulator on the previous day. The evaluator made the decision to deselect one of the JPMs based on procedural requirements stated in Procedure O-ADM-315. Procedure O-ADM-315, section 5.6.4.2, stated, "If an active SRO is not evaluated implementing the Emergency Plan Implementing Procedure (EPIP) in the Simulator, one of his five JPMs must implement the EIPs." The facility evaluator noted that the operator had not been evaluated on the EIPs during the simulator. Therefore, based on the above procedural requirements, the evaluator decided to replace one of the JPMs with an event classification JPM. Training management was notified, and the operator was administered a second in-plant JPM by 11:00 a.m. on the same day. The licensee further stated that the operator's paper work, which indicated that all operating test requirement had been completed, had not been signed when the problem was identified by the NRC. The licensee contended that the review process would have identified the problem. The licensee also reviewed documentation for all operating tests given during 1993, 1994, and 1995 to determine the number of in-plant JPMs given to licensed operators. The licensee identified one instance in 1993 in which a licensed operator was administered only one in-plant JPM. The licensee's administration of in-plant JPMs will be tracked as Inspector Follow-up Item 50-250, 251/95-02-03.

For those JPMs that were missed, the licensee had implemented a practice of requiring the operator to re-perform the JPM at a later date. The operator was required to repeat the JPM, even though the JPM had not resulted in a failure of the operating test. This was considered a strength.

Evaluators generally did a good job identifying strength and weaknesses during simulator scenarios. The training department's critique techniques were good. Following each scenario, the most senior member on the crew joined the evaluators in discussions of strengths and weaknesses. At the same time, in a separate class room, all other crew members discussed the scenario. The crew was required to list both positive and weak areas. Once both groups completed their evaluation and discussion, there was a joint discussion between the two groups. This allowed for good evaluator and crew involvement.

The inspectors reviewed documentation of previous licensee identified failures and weaknesses. In each case, the licensee specified detailed remediation requirements. The documentation reviewed indicated that remediation requirements were completed as required by the licensed operators.





## d. Operator Performance

The inspectors observed operators' performance during simulator scenarios and JPMs to determine how well licensed operators had been trained to handle events that might occur in the plant. The operators' overall performance during simulator scenarios and JPMs was adequate. However, the inspectors observed one instance during a simulator scenario in which an operator displayed difficulties in operating the steam generator's atmospheric dump valves.

During the performance of SES-043, "Steam Generator Tube Rupture/Loss of Offsite Power," the Reactor Controls Operator (RCO) was faced with the task of adjusting the ruptured steam generator's (SG) atmospheric dump valve, lifting setpoint to a raised value of 1060 pounds. This step was required to minimize the potential of lifting the ruptured SG's dump valve and creating a direct release path from the Reactor Coolant System (RCS) to the environment. While performing this task, the RCO was having difficulty adjusting the controller. Two operators observed the RCO having difficulty, but offered no assistance, nor did the RCO seek assistance. The RCO then inadvertently caused the SG atmospheric dump valve to lift for approximately five seconds before achieving the proper setpoint and closing the valve. During the post-scenario critique, the evaluators appeared to debate the significance of the event and whether or not it was even worth mentioning to the crew. The crew itself had identified the lifting of the SG atmospheric dump as a weakness during their own post-scenario critique.

## e. Probabilistic Safety Assessment (PSA) General Usage

Several operators were interviewed and questioned in the area of PSA application. Each operator interviewed, exhibited deficiencies in this area. When asked what items had been identified in the Integrated Plant Evaluation (IPE) as important operator actions and important plant hardware and systems, the operators either provided only part of the answer or no answer at all. The licensee's knowledge of PSA usage will be tracked as Inspector Follow-up Item 50-250, 251/95-02-04.

## f. Reactivation of Inactive Operator Licenses

The inspectors reviewed procedures and documentation associated with the reactivation of licensed operators to determine if the licensed operators were returned to active status as required by 10 CFR 55.53. Following the review of associated documentation for two licensed operators, the inspector concluded that the licensee failed to assure that all requirements specified in 10 CFR 55.53 were met prior to returning an inactive operator to active status.

10 CFR 55.53(e) states, in part, "If a licensee has not been actively performing the functions of an operator or senior operator, the licensee may not resume activities authorized by a license issued under this part except as permitted by paragraph (f) of this section." 10 CFR 55.53(f)(2) states, in part, that the facility licensee must certify that "The licensee has completed a minimum of 40 hours of shift functions under the direction of an operator or senior operator, as appropriate, and in the position to which the individual will be assigned. The 40 hours must have included a complete tour of the plant and all required shift turnover procedures."

Documentation indicated that each operator had completed the minimum 40 hours of shift functions under appropriate directions. The inspectors reviewed security logs to determine what areas of the plant each individual toured during the 40 hours of reactivation. The security logs reviewed showed that one individual had not performed a complete plant tour. The operator failed to enter several areas in the plant that were accessible during that mode of operation (diesel generator room, switch gear room, etc.). The inspectors discussed this item with the licensee and reviewed additional documentation. The inspectors determined that the licensee had revised their procedure in December, 1994, to identify areas of the plant that must be toured prior to the reactivation of an inactive license. The revision to the licensee's procedure was done after the licensee had reviewed inspection reports from other nuclear power plants. Also, following the discussion with the NRC, the facility licensee questioned the operator concerning the tour performed. The action taken by the licensee should prevent future violations of this particular 10 CFR requirement. The failure of the operator to perform a complete plant tour as specified in 10 CFR is an example of NVC 50-250, 251/95-02-01, "Failure to perform a complete plant tour for license reactivation." This violation will not be subject to enforcement action because the licensee had taken action to prevent future occurrence.

### 3. Exit Interview

At the conclusion of the site visit, the inspectors met with representatives of the plant staff listed in paragraph one to discuss the results of the inspection. The licensee did not identify as proprietary any material provided to, or reviewed by the inspectors. The inspectors further discussed in detail the inspection findings listed below. The licensee did not express any dissenting comments.



Report Details

7

<u>Item Number</u>	<u>Status</u>	<u>Description and Reference</u>
NCV 50-250, 251/95-02-01	Open	Failure of licensed operators to perform a complete plant tour when reactivating a license (Paragraph 2.f).
IFI 50-250, 251/95-02-01	Open	Method of selecting topics for examination (Paragraph 2.b).
IFI 50-250, 251/95-02-02	Open	Increase number of alternate path JPMs (Paragraph 2.b).
IFI 50-250, 251/95-02-03	Open	Administration of in-plant JPMs (Paragraph 2.c).
IFI 50-250, 251/95-02-04	Open	Operator knowledge of PSA (Paragraph 2.c).

Enclosure