

FLORIDA POWER AND LIGHT COMPANY  
TURKEY POINT UNITS 3 AND 4  
ADMINISTRATIVE PROCEDURE 0301  
AUGUST 20, 1981

1.0 Title:

LICENSED OPERATOR REQUALIFICATION PROGRAM

2.0 Approval and List of Effective Pages:

2.1 Approval:

Change Dated 8/20/81 Reviewed by Plant Nuclear Safety Committee: 81-59  
and Approved by Plant Manager - Nuclear: 8/20/81

2.2 List of Effective Pages:

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3.0 Scope:-

3.1 Purpose:

This procedure provides instructions for conducting a requalification program which will assure that licensed operators and senior reactor operators maintain their proficiency.

3.2 Discussion:

Individuals actively engaged as licensed operators or senior operators are required by federal regulations to participate in a USNRC approved requalification program.

Non-shift personnel who hold licenses and desire to keep their licenses effective shall participate fully in the program except for off-shift sessions devoted to subjects where their specialized knowledge precludes the need to attend.

As individual licenses near the expiration date, participation in the program will be reviewed, evaluations of performance will be analyzed, deficiencies will be rectified and a request for license renewal will be submitted to the USNRC.

The program will repeat on a continuing one year cycle, and in brief, will consist of:



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3.2.1 Off Shift Training which will consist of a series of lectures and examinations, and may also include discussion sessions and simulator training.

3.2.2 On Shift Training wherein plant changes/modifications, operating procedure revisions and reportable occurrences are discussed, and performance under both simulated and actual off-normal and emergency situations is evaluated. The required control manipulations may be performed either at a simulator or as a part of this on shift training.

3.3 Authority:

10 CFR 50.54 (i-1), 10 CFR 55.31 (e) and Appendix A to 10 CFR 55

3.4 Definitions:

3.4.1 Licensed Operator, or Licensee - An individual who holds an effective USNRC operator or senior operator license for Turkey Point Plant and who intends to maintain his license current.

3.4.2 Lecture Segment - May consist of several lecture sessions covering a particular topic or category.

3.4.3 Off-Site Licensee - A licensee who is;

1. Not permanently assigned to the Turkey Point Plant, or
2. Assigned to Turkey Point Plant but who has been absent from the site for greater than 90 days at a time.

3.4.4 Training Department Staff - The training organization, consisting of the Training Supervisor, and Licensed Instructors who are permanently assigned to the department.

4.0 Precautions:

None

5.0 Responsibilities:

5.1 The Training Supervisor:

5.1.1 From the results of prior examinations, evaluations and suggestions by licensed operators, determine topics to be included in regularly scheduled lectures. Prepare the material and give lectures on these specific topics or appoint a competent individual to prepare and give lectures on specific topics.

5.1.2 Prepare examinations on lecture topics and an annual operator and senior operator NRC type examination.



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- 5.1.3 Schedule off-shift lecture and/or discussion sessions on topics suggested by licensed operators or of current interest, such as plant changes and modifications, plant operating problems, reportable occurrences and plant operating procedures. Where deemed advisable, appoint an individual fully conversant with the topic to lead the discussion.
- 5.1.4 Arrange for competent examiners to perform oral evaluations as necessary.
- 5.1.5 Review the results of written exams and evaluations and, where required, provide intensive individual training.
- 5.1.6 Maintain the records required to document the training given each licensee.
- 5.2 The Operations Supervisor - Nuclear:

Shall coordinate with the Training Supervisor to prepare a schedule for off-shift training sessions.
- 5.3 The Nuclear Plant Supervisor in charge of each shift:
  - 5.3.1 Shall be familiar with the performance of operators on his shift. He shall, on the form provided, evaluate the performance of members of his crew during actual off-normal/emergency situations and discuss the evaluations with the individuals.
  - 5.3.2 Copies of all documents distributed pursuant to Section 7.1 will be posted in a binder provided for their receipt. Each Nuclear Plant Supervisor shall ensure that each member of his crew reviews these documents and initials the acknowledgment section of the cover letter associated with these changes.
  - 5.3.3 An individual log of control manipulations, for licensed crew members shall be kept. The licensee is to make entries which shall be validated by the Nuclear Plant Supervisor, Operations Supervisor, Operations Superintendent, or Training Department Staff Member. At intervals, the supervisor is to review the logs of his shift members to assure that the required manipulations will be performed within the appropriate cycle.
- 5.4 Each Licensee:
  - 5.4.1 Attend required off-shift lectures, discussion sessions, and any scheduled simulator training, and take scheduled written examinations and evaluations.
  - 5.4.2 Maintain his control manipulation log.



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5.4.3 Ensure that he understands documents distributed pursuant to Section 7.1 and signify his understanding by initialing the acknowledgment letter associated with these changes.

5.4.4 Participate in special training programs where written examinations and evaluations indicate the need.

6.0 References:

6.1 10 CFR 50.54 (i-1), Conditions of Licenses

6.2 10 CFR 55.31 (e), Conditions of Licenses

6.3 10 CFR 55, Appendix A, Requalification Programs for Licensed Operators of Production and Utilization Facilities

6.4 Letter from Harold R. Denton to all power reactor applicants and licensees, dated March 28, 1980. Subject: Qualifications of Reactor Operators

6.5 License Amendment Nos. 70 and 63, Technical Specification 6.16, Backup Methods for Determining Subcooling Margin.

7.0 Records and Notifications:

7.1 Training Report

A copy of each plant change/modification (or a summary of the plant change/modification), reportable occurrence, FSAR supplement, facility license amendment, and applicable procedure change shall be sent to the Nuclear Control Room, (for shift operators) and to the Training Department (for non-shift operators). These locations should maintain these documents in loose leaf binders, designated for the receipt of Training Reports. Document Control is responsible for posting all applicable changes in these binders periodically. Each licensee shall review these documents and shall so indicate by initialing the acknowledgment section of the Training Report Cover Letter associated with each posting. The completed training report cover letters shall be filed in Document Control. (See Figure 1)

7.2 Control Manipulation Log:

Each licensee shall maintain his own log. The logs for shift operators will be maintained in the Nuclear Plant Supervisor's office. The logs for non-shift operators will be maintained in the Training Department. At the completion of each cycle, the log will be placed in the licensee's Requalification File. When the control manipulations take place at a simulator, the word "simulator" may be entered in the signature column, and the documentation provided by the simulator facility attached to the form. (See Figure 2 and 3)





7.3 Log of On-Watch Duty - Off-Site Licensed Personnel:

This log will be displayed in a conspicuous location. Its purpose is to enable both the licensee and the Training Supervisor to assure that shift operation requirements are met. The logs need not be retained. Refer to Figure 4.

7.4 Records Relating to Off-Shift Training

7.4.1 Posted Schedule:

To be displayed in conspicuous locations and shall show:

- Shifts on Training Schedule
- Dates of lectures and the subject matter
- Dates of procedure review and procedures to be discussed
- Dates of discussion sessions and the topics to be discussed
- Dates of scheduled examinations
- Dates of any simulator training

Multiple sessions will be required and the schedule shall be posted sufficiently in advance to make the schedule arrangements necessary to allow licensees to attend a session.

Completed schedules shall be kept in the requalification program file maintained in Document Control.

7.4.2 Attendance Records:

The lecturer or discussion leader shall maintain a record of attendance. Multiple scheduling of sessions should assist in assuring that all licensed operators can attend. Where circumstances cause an absence, the necessity of make up shall be determined by the Training Supervisor. Written examinations shall not be missed. The Attendance Record is to be kept in the Requalification Program File.

7.4.3 Written Examination:

The questions, together with the answers for examinations on lecture topics and the annual OP, SOP examination together with the grades made by each licensee shall be kept in the Requalification Program File.

7.5 Applicable NRC Bulletins, Circulars, and Information Notices

Copies of this correspondence shall be routed to the Training Department, posted in the binder provided, and logged on the cover letter. Each member of the Training Department Staff shall review these documents and shall so indicate by initialing the cover letter for the applicable month. Completed cover letters shall be filed in Document Control. (See Figure 5)



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### 7.6 Log Review Sheet

Each member of the Training Department Staff shall maintain his own sheet. The sheets will be maintained in the Training Department. Control Room Logs (NPS and RCO) shall be reviewed by the Training Department Staff at regular intervals not exceeding one month, and this review documented by initialing this sheet. When the sheet is completed, it shall be placed in the individual's Requalification File. (See Figure 6)

### 7.7 Request for License Renewal

As the date for license renewal approaches, the Training Supervisor shall review program participation to insure eligibility and prepare and submit applications for license renewal to the USNRC.

## 8.0 Instructions:

### 8.1 Off-Shift Training

8.1.1 A minimum of 160 hours of off-shift training shall be scheduled for each operating shift. This training may include discussion sessions and simulator training, but as a minimum shall consist of lectures covering topics which fall under general headings as listed.

1. Theory and Principles of Operation
2. General and Specific Plant Operating Characteristics
3. Plant Instrumentation and Control Systems
4. Plant Protection Systems
5. Engineered Safety Systems
6. Normal, Off-Normal, and Emergency Operating Procedures
7. Radiation Control and Safety
8. Technical Specifications
9. Applicable portions of Title 10, Chapter I, Code of Federal Regulations
10. Thermodynamics, Heat Transfer, and Fluid Flow
11. Mitigation of Accidents involving a Degraded Core
12. Backup Methods for determining subcooling margin.

8.1.2 When discussion sessions are scheduled to fulfill any off-shift training requirement, a member of the Training Department Staff, the Nuclear Plant Supervisor, or an individual well versed in the topic shall be designated as leader of the session.



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- 8.1.3 When a simulator is used for off-shift training, one hour of simulator time shall count as two hours of training time for the purpose of fulfilling the minimum time requirement of Step 8.1.1.
- 8.1.4 The results of the annual examinations shall be analyzed to determine subjects to be emphasized. Additionally, any plant or industry problems which develop and are deemed as useful information for the operator shall be discussed, and the underlying theory, nuclear, mechanical, or thermodynamics shall be taught to the depth required.
- 8.1.5 Each shift shall be rotated from the operating shift schedule to the training shift schedule in order to provide off-shift training.
- 8.1.6 The majority of the off-shift training will be conducted by the Training Department Staff. Where the specialized knowledge of an individual outside the training organization is available or desirable, this individual may conduct the session.
- 8.1.7 The Training Department Staff shall participate in any simulator training which is conducted as a part of this program.

## 8.2 On-Shift Training

### 8.2.1 Control Manipulations

All licensees, within the cycle indicated, shall, where possible, perform or direct the activities listed on the Control Manipulations Logs (Figures 2 and 3). These manipulations may be performed either on the plant or a simulator. When actual performance of certain manipulations is not possible, oral examinations shall be administered in accordance with step 8.3.3. Those manipulations indicated by an asterisk (\*) on the log shall be performed either on the plant or a simulator. Oral examination is not sufficient to meet the requirement for these manipulations. See Figures 2 and 3 for details.

### 8.2.2 Training Reports

Training Report Cover Letters shall accompany documents distributed pursuant to Section 7.1. Each shift operator should review and initial the Cover Letter acknowledgment section within 14 days of the posting. See Figure 1 for details.

### 8.2.3 Off-Site Licensee

1. Each off-site licensee shall participate fully in the Licensed Operator Requalification Program. In addition, each off-site licensee shall stand periodic control room watches in order to maintain his proficiency as a watch stander. The minimum requirement is 8 hours of watch standing within any three month period.



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2. Periods exceeding 4 months without actively performing the functions of a licensed operator shall require a demonstration of competency prior to resuming licensed activities by passing a written and oral examination. To the extent practicable, the licensee is to stand the watch when major evolutions are taking place. Refer to Figure 4.

#### 8.2.4 Training Department Staff

1. The Training Department Staff shall participate fully in the On-Shift Training portion of this program.
2. In addition, the Training Department Staff shall review the following:
  - (1) Applicable NRC Bulletins, Circulars, and Information Notices. This review shall be documented by initialing the cover letter accompanying these documents. See Figure 5.
  - (2) Control Room Operating Logs (NPS and RCO). This review shall be documented by initialing the Log Review Sheet at one month intervals. See Figure 6.

### 8.3 Examinations

- 8.3.1 Periodic written quizzes shall be administered following lecture segments.
- 8.3.2 Written examinations similar in scope and depth to NRC written examinations shall be administered on an annual basis to each licensed individual. The Reactor Operator Examination shall be completed within 9 hours, and the Senior Reactor Operator Examination shall be completed within 7 hours.
- 8.3.3 Oral examinations shall be conducted on control manipulations not performed on the plant or a simulator.
- 8.3.4 The Training Department Staff shall not be required to take the Examinations since the staff administers these examinations. They shall, however, demonstrate and maintain their proficiency by preparing, conducting, and evaluating training programs designed to maintain or increase proficiencies of licensed operators and license candidates, and in addition, by fulfilling the requirements of Step 8.2.

### 8.4 Evaluation Criteria

- 8.4.1 A score of less than 80% on periodic quizzes administered in accordance with Step 8.3.1 shall require further study and completion of an additional quiz within 60 days of the previous quiz date.
- 8.4.2 The following criteria shall apply to written examinations administered in accordance with Step 8.3.2.





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1. A score of less than 80% on any section of the examination shall require mandatory attendance at lecture sessions covering material falling under that section in the following requalification program year.
  2. A score of less than 80% overall, or less than 70% on any section of the annual examination shall require that the individual be placed in an intensive training program until the responsible supervisors are satisfied that the individual is again proficient. Proficiency shall be demonstrated by successfully passing another written examination. The licensee shall be relieved of duties requiring a license until deemed proficient.
- 8.4.3 Unsatisfactory performance on control manipulations performed in accordance with Step 8.2.1 shall require further study and completion of an additional evaluation within 60 days of the previous evaluation date.



# TRAINING REPORT COVER LETTER

1st. (JAN-MAR) \_\_\_\_\_  
 2nd. (APR-JUN) \_\_\_\_\_  
 3rd. (JUL-SEP) \_\_\_\_\_  
 4th. (OCT-DEC) \_\_\_\_\_  
 WEEK NO. \_\_\_\_\_ (1-13)  
 DATE DISTRIBUTED \_\_\_\_\_

1 - Plant Change/Modification  
2 - Reportable Occurrence  
3 - FSAR Supplement  
4 - Operating License Amendment (Tech Spec Change)  
5 - Operating Procedure Change  
6 - Other

ITEM NO.	IDENTIFICATION	REV. NO./DATE	ITEM NO.	IDENTIFICATION	REV. NO./DATE

I have reviewed and discussed the data furnished by this cover letter, and have so indicated by initialing below.

INITIALS/ DATE

[illegible]

PLEASE REVIEW AND ACKNOWLEDGE THE CHANGES IDENTIFIED ON THIS COVER LETTER WITHIN 14 DAYS AFTER THIS TRAINING REPORT IS POSTED.



## ANNUAL

From \_\_\_\_\_ To \_\_\_\_\_

Name: \_\_\_\_\_ License No. \_\_\_\_\_

	DATE	SAT/UNSAT	SIGNATURE
*Reactor Startup to Nuclear Heat			
*Manual S/G Level Control During S/U or S/D			
*Power Change > 10% in Manual Rod Control			
Loss of Reactor Coolant Flow			
Loss of All Feedwater (Normal and Emergency)			
Exc. RCS Leakage (Incl. Rate Determination)			
Steam Generator Tube Rupture			
Loss of Reactor Coolant:			
Inside Containment			
Outside Containment			
Large Break			
Small Break			
Saturated RCS Response			

**\*Must be performed on plant or simulator. Procedure walk through not sufficient.**

REMARKS: (Unsat evaluation requires explanation)

[illegible]



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FIGURE 3

CONTROL MANIPULATION LOG

TWO YEAR CYCLE

From \_\_\_\_\_ To \_\_\_\_\_

Name: \_\_\_\_\_ License No. \_\_\_\_\_

	DATE	SAT/UNSAT	SIGNATURE
*Plant Shutdown			
*At Power Boration or Dilution (> 100 pcm)			
Loss of Instrument Air			
Loss of Offsite Power			
Loss of Condenser Vacuum			
Loss of Intake Cooling Water Flow			
Loss of Shutdown Cooling (RHR)			
Loss of Component Cooling Flow			
Loss of Normal Feedwater			
Loss of Protective System Channel			
Mispositioned or Dropped Control Rod			
Inability to Drive Control Rods			
Emergency Boration			
Excessive RCS Activity			
Reactor Trip			
Turbine or Generator Trip			
Boron Concentration Control Malfunction			
Malfunction of Pressurizer Pressure Control			
Malfunction of Pressurizer Level Control			
Main Steam Line Break			
Source Range NIS Failure			
Intermediate Range NIS Failure			
Power Range NIS Failure			

\*Must be performed on plant or simulator. Procedure walk through not sufficient.

REMARKS: (Unsat evaluation requires explanation)

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FIGURE 4

OFF-SITE LICENSED PERSONNEL - LOG OF ON WATCH DUTY IN CONTROL ROOM

INSTRUCTIONS:

1. 8 Hours within any 3 month period is recommended. Over 4 months without watch time - suspension until competency is demonstrated.
2. Document date, time start - end, evolutions directed/performed, sign.
3. Make entry in shift personnel record book kept in control room to document on watch duty.

YEAR 19

NAME	JAN or JULY	FEB or AUG	MAR or SEPT	APR or OCT	MAY or NOV	JUNE or DEC



TRAINING DEPARTMENT STAFF  
NRC CORRESPONDENCE COVER LETTER

Month 19

**BULLETINS:**

**CIRCULARS:**

**INFORMATION  
NOTICES:**

NAME

INITIALS/DATE



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FIGURE 6  
TRAINING DEPARTMENT STAFF  
LOG REVIEW SHEET

Name: \_\_\_\_\_

Requal Program Year

License No: \_\_\_\_\_

19\_\_\_\_ thru 19\_\_\_\_

Position: \_\_\_\_\_

Review NPS and RCO log books at regular intervals not exceeding one month, and indicate that review by initialing the appropriate line below within the first 14 days of the following month.

INITIALS/DATE

April \_\_\_\_\_/\_\_\_\_\_

May \_\_\_\_\_/\_\_\_\_\_

June \_\_\_\_\_/\_\_\_\_\_

July \_\_\_\_\_/\_\_\_\_\_

August \_\_\_\_\_/\_\_\_\_\_

September \_\_\_\_\_/\_\_\_\_\_

October \_\_\_\_\_/\_\_\_\_\_

November \_\_\_\_\_/\_\_\_\_\_

December \_\_\_\_\_/\_\_\_\_\_

January \_\_\_\_\_/\_\_\_\_\_

February \_\_\_\_\_/\_\_\_\_\_

March \_\_\_\_\_/\_\_\_\_\_

