UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET SW SUITE 23T85
ATLANTA, GEORGIA 30303-8931

March 17, 2000

Florida Power and Light Company
ATTN: Mr. Rajiv S. Kundalkar
Vice President
St. Lucie Nuclear Plant
6351 South Ocean Drive
Jensen Beach, FL 34957

SUBJECT: NRC EXAMINATION REPORT 50-335/2000-301, 50-389/2000-301

Dear Mr. Kundalkar:

On February 10, 2000, the Nuclear Regulatory Commission (NRC) completed administering operator licensing examinations to employees of your company who had applied for licenses to operate your St. Lucie Nuclear Plant Units 1 and 2. The enclosed report presents the results of that examination.

One reactor operator applicant and three senior reactor operator applicants who were administered the written examination and operating test passed the examination representing a 100 percent pass rate. Five reactor operator applicants retook the written examination only and all passed representing a 100 percent pass rate. A Simulation Facility Report is included in this report as Enclosure 2. A copy of the written examination questions and answer key as noted in Enclosure 3, was retained by your facility following administration. Comments from you and your staff regarding specific aspects of this examination and NRC's resolution of these comments are included as Enclosure 4.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosures will be placed in the NRC Public Document Room (PDR).

Sincerely,

/RA/

George T. Hopper, Acting Chief
Operator Licensing and Human
Performance Branch
Division of Reactor Safety

Docket Nos.: 50-335, 50-389
License Nos.: DPR-67, NPF-16

Enclosures:
1. Report Details
2. Simulation Facility Report
3. Written Examination and Answer Key (SRO)
(Document Control Desk Only)
4. Facility Comments and NRC Resolutions

cc w/encls: (See page 2)

cc w/encls:
R. G. West
Plant General Manager
St. Lucie Nuclear Plant
Electronic Mail Distribution

E. J. Weinkam
Licensing Manager
St. Lucie Nuclear Plant
Electronic Mail Distribution

John Gianfrancesco, Manager
Administrative Support & Special Projects
Florida Power & Light Company
Electronic Mail Distribution

Mark Dryden
Administrative Support & Special Projects
Florida Power & Light Company
Electronic Mail Distribution

M. S. Ross, Attorney
Florida Power & Light Company
Electronic Mail Distribution

William A. Passetti
Bureau of Radiation Control
Department of Health
Electronic Mail Distribution

Joe Myers, Director
Division of Emergency Preparedness
Department of Community Affairs
Electronic Mail Distribution

J. Kammel
Radiological Emergency
Planning Administrator
Department of Public Safety
Electronic Mail Distribution

Douglas Anderson
County Administrator
St. Lucie County
2300 Virginia Avenue
Ft. Pierce, FL 34982

Robert W. Lindsey
Training Manager
St. Lucie Nuclear Plant
6351 South Ocean Drive
Jensen Beach, FL 34957

Distribution w/encls:
W. Gleaves, NRR
PUBLIC

OFFICE	RII:DRS	RII:DRS	RII:DRP	RII:DRS			
SIGNATURE	CP	ME	LW	GH			
NAME	CPayne:pd	MErnstes	LWert	GHopper			
DATE	3/16/00	3/16/00	3/16/00	3/17/00	3/ /00	3/ /00	3/ /00
COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY DOCUMENT NAME: C:\sl2000-3.wpd

NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos.:	50-335, 50-389
License Nos.:	DPR-67, NPF-16
Report No.:	50-335/2000-301, 50-389/2000-301
Licensee:	Florida Power and Light Company
Facility:	St. Lucie Nuclear Plant Units 1 and 2
Location:	6351 S. Ocean Drive Jensen Beach, FL 34957
Dates:	Operating Tests - February 7 - 9, 2000 Written Examination - February 10, 2000
Examiners:	C. Payne, Senior Operations Engineer M. Ernstes, Senior Operations Engineer
Approved by:	G. Hopper, Acting Chief Operator Licensing and Human Performance Branch Division of Reactor Safety

Enclosure 1

EXECUTIVE SUMMARY

St. Lucie Nuclear Plant Units 1 and 2
NRC Examination Report 50-335/2000-301, 50-389/2000-301

This report documents the results of cooperative effort between the licensee and regional examiners to develop, validate and administer operator licensing initial examinations in accordance with the guidance of Examination Standards, NUREG-1021, Revision 8. This examination implemented the operator licensing requirements of 10 CFR §55.41, §55.43, and §55.45.

One reactor operator applicant and three senior reactor operator applicants were administered the final, approved written examination and operating test. Five reactor operator applicants were administered the written examination only. The NRC administered the operating tests during the week of February 7, 2000. The licensee administered the written examination on February 10, 2000.

Operations

- Six reactor operator and three senior reactor operator applicants passed the examination and were issued licenses. No applicants failed the examination. (Section O5.1; [POS-3B])

Report Details

Summary of Plant Status

During the period of the examinations, both units operated at 100 percent power.

I. Operations

O5 Operator Training and Qualifications

O5.1 Initial Operator Licensing Examinations

a. Examination Scope

NRC examiners administered regular, announced operator licensing examinations developed by the licensee and approved by the NRC in accordance with the guidelines of the Operator Licensing Examination Standards for Power Reactors, NUREG-1021, Revision 8 during the period February 7-9, 2000. The written examination was administered by the licensee on February 10, 2000. One RO applicant and three SRO applicants were administered the final, approved written examination and operating test. Five RO re-applicants were administered the written examination only. Following examination administration, the examiners reviewed and analyzed the facility licensee's grading of the written examinations and approved the final results.

b. Observations and Findings

The licensee developed and validated SRO and RO written examinations, one administrative test set, one plant systems test set and three simulator scenarios. The NRC examiners reviewed the submitted examination materials. The facility licensee's submittal was within the range of acceptability expected for a proposed examination. Minor modifications and corrections were identified and made to the submitted draft examinations. The changes agreed upon by the NRC and the facility were made in compliance with the requirements of NUREG-1021. The examiners validated these test items during a site preparation visit the week of January 24, 2000.

One significant examination security issue occurred during licensee development of the examination. On November 15, 1999, members of the St. Lucie staff met with the Chief Examiner to discuss details of the yet to be submitted proposed written and operating examinations. Subsequent to the meeting, 62 of the 125 written examination questions as well as the entire RO and SRO written examination sample plans were misplaced at an Atlanta hotel. Following a thorough search and interviews with the hotel staff, the licensee concluded that the items in question were lost and likely discarded into the hotel trash. The regional office and NRC headquarters were notified. With senior NRC and licensee management oversight, the examination team developed a course of action for the licensee to recover from this issue. In summary, the licensee replaced or significantly modified 30 of the 62 lost questions and committed to evaluate these questions during post-examination grading for unusual performance weaknesses. Details of this issue were documented by the licensee in Condition Report 99-2303. The corrective actions listed appeared to be adequate to preclude recurrence of this problem in the future.

Examination Results and Conclusions

All nine applicants passed the examination. The average score of the RO written examination was 90.2 percent (80 percent was required for passing). The average score of the SRO written examination was 89.2 percent. The licensee submitted three formal post-examination comments on the written examination. These comments and their resolutions are presented in Enclosure 4. Resolution of these comments had no impact on the pass/fail grading of the written examination. They were provided primarily to assure question accuracy during use on future examinations.

The NRC conducted a post-examination item analysis of the written examination. The examiners identified five questions which were answered incorrectly by 50 percent or more of the applicants. Two questions were on both examinations, two were on the SRO examination only and one was on the RO examination only. The examiners reaffirmed that each question tested valid knowledge and ability areas. One question (RO #68, SRO #64) was missed by eight of the nine (89 percent) applicants and seven picked the same incorrect answer ("A"). This may indicate a generic weakness in the applicants' understanding of normal and redundant EDG instrumentation. The remaining missed questions tested unique knowledge areas and no broad conclusions could be made from this small sample size.

Analysis of applicant performance on the 62 lost questions (described above) did not reveal any unusual tests scores or applicant performance indicative of fore-knowledge of this part of the examination. In general, applicant performance on these 62 questions was consistent with their final overall grade.

The examiners did not note any generic applicant performance weakness during the plant walkthrough and simulator examinations. Details of specific applicant performance discrepancies were described in each individual's examination report, Form ES-303-1, "Operator Licensing Examination Report," which have been forwarded under separate cover to the Training Manager. This will enable you to evaluate the weaknesses and provide appropriate feedback and/or remedial training as necessary.

c. Conclusions

All nine applicants were issued operator licenses. The examiners concluded that overall applicant performance on the written examination and the operating test was good.

V. Management Meetings

X1 Exit Meeting Summary

The inspectors presented the examination results to members of licensee management at the conclusion of the examination on February 10, 2000. The licensee acknowledged the findings presented.

The examiners asked the licensee whether any materials used during the examination should be considered proprietary. No proprietary information was identified.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

*K. Frehafer, Licensing
*W. Gukdemond, Operations Manager
*R. Kundalkar, Vice President
*C. Ladd, Operations Supervisor
*D. Lauterbur, Operations Initial Supervisor
*L. Rich, Examination Developer
*A. Scales, Assistant Operations Supervisor
*E. Weinkam, Licensing Manager
*R. West, Plant General Manager

NRC

*D. Lanyi, Resident Inspector
*M. Miller, Examiner (In-training)

*Attended Exit Meeting

INSPECTION PROCEDURES USED

NUREG-1021, Revision 8: Operator Licensing Examination Standards for Power Reactors

ITEMS OPENED, CLOSED, AND DISCUSSED

None

LIST OF ACRONYMS USED

CFR	Code of Federal Regulations
EDG	Emergency Diesel Generator
EOP	Emergency Operating Procedure
ES	Examination Standard
ESFAS	Engineered Safeguard Features Actuation Signal
HPSI	High Pressure Safety Injection
JPM	Job Performance Measure
LOCA	Loss of Coolant Accident
NRC	Nuclear Regulatory Commission
RCP	Reactor Coolant Pump
RCS	Reactor Coolant System
RO	Reactor Operator
SRO	Senior Reactor Operator

SIMULATION FACILITY REPORT

Facility Licensee: St. Lucie Nuclear Plant Units 1 and 2

Facility Docket Nos.: 50-335, 50-389

Operating Tests Administered on: February 7 - 9, 2000

This form is to be used only to report observations. These observations do not constitute audit or inspection findings and are not, without further verification and review, indicative of noncompliance with 10 CFR 55.45(b). These observations do not affect NRC certification or approval of the simulation facility other than to provide information that may be used in future evaluations. No licensee action is required in response to these observations.

While conducting the simulator portion of the operating tests, the following item was observed:

ITEM	DESCRIPTION
NONE	

FACILITY COMMENTS AND NRC RESOLUTIONS

SRO Question #31, RO Question #30

Comment: Stem of question never states Containment Spray initially actuated. To answer question correctly (terminate containment spray, choice "C") you had to assume it has actuated. The stem states the operators have implemented EOP-03, "LOCA," but this could be a small break, in which Containment Spray may not actuate.

Recommendation: Retain question and add to stem of question "All ESFAS signals have actuated."

NRC Resolution: Recommendation accepted with one change. This comment does not change the answer key but provides necessary additional information to properly address plant conditions. The master exam has been changed to modify the stem of this question as follows: "Containment pressure: peaked at 10.7 psig. Currently is 1.5 psig and slowly lowering". This change was discussed with and found acceptable by the licensee's examination developer.

SRO Question #43

Comment: Correct answer should be "B". Steam Generator Heat removal is used to control a high pressure condition only. The subcooling of the RCS is 20-200°F, so there is no high pressure condition. Additionally, two RCP's may be operating, enabling the use of the main spray valves for pressure control. Although all charging pumps are inoperable, the safety function acceptance criteria states' all available operating. Considering none are available, this portion of the safety function is met.

Recommendation: Current answer states 'C' Steam Generator Heat Removal. Change key to 'B' Safety Injection.

NRC Resolution: Recommendation accepted, though not for the reasons stated in the facility's comment. The examiner agrees that the question's original correct answer ("C") is only used as a success path to control high RCS pressure conditions (as is distractor "D"). For this question, a high RCS pressure condition does not exist. Therefore, both "C" and "D" are incorrect. As indicated in the initial conditions, the given Pressurizer level is too low to allow use of Pressurizer heaters, so distractor "A" is also incorrect. Consequently, there is at most one correct answer to this question. The stem of the question asks which of the listed Success Paths will be implemented to meet the RCS Pressure Control Safety Function - not which one has been met to satisfy the safety function. Given the conditions of the question, the only way to allow pressure control with the preferred method of heaters and sprays is to restore Pressurizer level. Even with a loss of all charging pumps, the only currently available success path that will lead to meeting the safety function is "Safety Injection." Therefore, the examiners agree the correct answer should be "B" and the answer key was changed to reflect this.

SRO Question #47, RO Question #45

Comment: Question asked why two RCP's are tripped during implementation of Steam Generator Tube leak Off -Normal. Off-Normal procedure 1-0830030, "Steam Generator Tube Leak" has been revised. No RCP's are tripped in the new revision of the procedure.

Recommendation: Current answer [key] states "B" ("To reduce heat input into the RCS.") Because the current procedure does not direct tripping any RCP, recommend delete Question.

NRC Resolution: Recommendation accepted. This question was deleted from the SRO and RO examinations.