



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

May 1, 2001

Carolina Power & Light Company  
ATTN: Mr. J. W. Moyer  
Vice President  
H. B. Robinson Steam Electric Plant Unit 2  
3581 West Entrance Road  
Hartsville, SC 29550

SUBJECT: H. B. ROBINSON STEAM ELECTRIC PLANT - NRC EXAMINATION REPORT  
50-261/2001-301

Dear Mr. Moyer:

On March 30, 2001, the Nuclear Regulatory Commission (NRC) completed administration of operating examinations to employees of your company who had applied for licenses to operate the H. B. Robinson Steam Electric Plant, Unit No. 2. The enclosed report documents the examination results and findings which were discussed on March 30, 2001, with Mr. A. Williams and other members of your staff.

Five Reactor Operator and four Senior Reactor Operator applicants passed the operating examinations. Three Reactor Operator applicants failed the written examination and all other applicants passed the written examination. A Simulation Facility Report is included in this report as Enclosure 2. NRC Post Examination comment resolution is included in this report as Enclosure 3.

No findings of significance were identified.

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

Sincerely,

/RA/

Michael E. Ernstes, Chief  
Operator Licensing and  
Human Performance Branch  
Division of Reactor Safety

Docket No.: 50-261  
License No.: DPR-23

Enclosures: (See page 2)

- Enclosures: 1. Examination Report 50-261/2001-301  
2. Simulation Facility Report  
3. Robinson Post Examination Comment Resolution

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NUCLEAR REGULATORY COMMISSION

Enclosure 1

REGION II

Docket No.: 50-261

License No.: DPR-23

Report No.: 50-261/2001-301

Licensee: Carolina Power & Light (CP&L)

Facility: H. B. Robinson Steam Electric Plant, Unit 2

Location: 3581 West Entrance Road  
Hartsville, SC 29550

Dates: Operating Tests - March 26 - 30, 2001  
Written Examination - April 2, 2001

Examiners: R. Baldwin, Chief, Senior Operations Engineer  
E. Lea, Project Engineer/Operations Engineer  
S. Rose, Operations Engineer  
G. Laska, Operations Engineer (In-training)

Approved by: M. Ernstes, Chief  
Operator Licensing and Human Performance Branch  
Division of Reactor Safety

## SUMMARY OF FINDINGS

ER 05000261-01-301, on March 26 - 30, 2001, Carolina Power & Light, H. B. Robinson Steam Electric Plant, Unit 2, RO & SRO initial operator licensing examinations, examination security and integrity, simulator fidelity.

The operator licensing initial examinations were developed by the licensee and administered by NRC examiners in accordance with the guidance of NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 8, Supplement 1. The examination implemented the operator licensing requirements of 10 CFR §55.41, §55.43, and §55.45.

### Cross-cutting Issues: Human Performance

- No Color. Five Reactor Operator (RO) applicants and four Senior Reactor Operator (SRO) applicants were administered written examinations and operating tests. Three RO applicants failed the written examination. All other applicants passed the examination and were issued operator licenses commensurate with the level of examination administered.
- No significant findings were identified.

## Report Details

### 4. OTHER ACTIVITIES (OA)

#### **4OA5** Operator Licensing Initial Examinations

##### a. Inspection Scope

H. B. Robinson Steam Electric examination team developed operating tests and written examinations in accordance with NUREG 1021, "Operator Licensing Examination Standards for Power Reactors," Revision 8, Supplement 1. The NRC examiners reviewed the proposed examination. Examination changes agreed upon between the NRC and the licensee were made according to NUREG-1021 and incorporated into the final version of the examination materials. The NRC administered the approved operating tests during the period of March 26 - 30, 2001, to five RO applicants and four SRO applicants. Your staff administered the approved written examination on April 2, 2001. The examiners reviewed the examination security measures to ensure examination security and integrity.

##### b. Issues and Findings

No findings of significance were identified.

Two of the five RO and all four SRO applicants passed both examinations. Three RO applicants failed the written examination. Details of each applicant's deficiencies are described in the individual's examination report, Form ES-303-1, "Operator Licensing Examination Report." Copies of the evaluations have been forwarded under separate cover to the Training Manager in order to enable the licensee to evaluate these deficiencies and provide appropriate remedial training for those operators as necessary.

The licensee submitted two post-examination comments concerning the written examination, as well as, two post-examination comments concerning the operating test (ADAMS Accession Number ML011140523). The written examinations and answer keys may be accessed in the ADAMS system under ADAMS Accession Numbers ML011140543 and ML011150099, RO and SRO respectively.

#### **4OA6** Meetings

##### Exit Meeting Summary

The Chief Examiner presented the preliminary examination results on March 30, 2001, to members of licensee management. The licensee acknowledged the examination results presented.

The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

LIST OF PERSONS CONTACTED

T. Cleary, Plant General Manager  
K. Jones, Manager, Shift Operations  
E. Kapopoulos, Manager, Operations  
D. McCaskill, Superintendent, Operations Training  
J. Moyer, Site, Vice President  
A. Musselwhite, Project Specialist, Training  
A. Williams, Manager, Training

## SIMULATION FACILITY REPORT

Facility Licensee: H. B. Robinson Steam Electric Plant

Facility Docket No.: 50-261

Operating Tests Administered on: March 26 - 30, 2001

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 items were observed:

<u>ITEM</u>	<u>DESCRIPTION</u>
NONE	

## ROBINSON POST EXAMINATION COMMENT RESOLUTION

### RO and SRO Question # 11.

Comment not accepted. Choice (d) remains as the only correct answer.

The licensee contended that choice (b) was an additional correct answer since it is a management expectation to initiate a manual turbine trip prior to reaching the automatic setpoint. In support of their contention, the licensee stated that back pressure was degrading at an "undefined rate" and that it would be appropriate to implement Step 21 of AOP - 012 to trip the turbine to allow a margin to the automatic trip. Despite the licensee's management expectation to take actions prior to setpoints being reached, the question clearly states what actions are to be taken in accordance with AOP - 012. Tripping the turbine at 5.7 inches Hg ABS is not in accordance with AOP - 012 and OMM - 022, since the CONDENSER LO VACUUM alarm does not occur until 9 inches Hg ABS and the CONDENSER LO VACUUM TURB TRIP does not occur until 10.3 inches Hg ABS.

The rate of backpressure change was described as "degrading slowly." Considering a normal power reduction rate of 1 % per minute, it would have taken 14 minutes to accomplish the load reduction from 22 % to 8 %. AOP - 012 does not direct a load reduction until the Response Not Obtained (RNO) column of step 24, when backpressure reaches 5.5 inches Hg ABS. The stem stated that vacuum was now 5.7 inches of Hg ABS, the rate of condenser vacuum loss would have been approximately 0.2 inches Hg ABS over a 14 minute period. At this rate, the automatic turbine trip setpoint of 10.3 inches Hg ABS would not have been reached for over five hours. Although this calculation was not required to successfully select the correct answer, it serves to reinforce the wording in the stem, that vacuum was "degrading slowly." This shows that there would have been sufficient time to complete GP - 006, thus allowing an orderly shutdown of the plant as was required by RNO (c) of Step 24.

Additionally, it should be noted that the randomly generated sample plan had selected K/A 051AA2.02 - Ability to determine and interpret [conditions requiring reactor and/or turbine trip] as they apply to the loss of condenser vacuum.

Question # 11 adequately tested this K/A, in that, an applicant with knowledge of the automatic turbine trip setpoint should have been able to eliminate choices (a), (b) and (c) since condenser backpressure was not close to the automatic trip.

### RO Question # 78.

Comment accepted. The additional information provided identifies justification for allowing distractor "C" as the only correct answer. The answer key will be changed and credit will be given for answer "C".

### JPM SRO-A.3, Review/Approve a Liquid Waste Release.

Comment accepted. The additional information provided identifies justification for allowing latitude in grading this JPM. If the applicants found the two prescribed errors and would not allow the release to take place because of a discrepancy between the radiation monitor setpoint and the radiation monitor setpoint verified at value, the

applicant would receive full credit for this JPM. Based on provided information JPM step 6 is no longer considered to be a critical step.

JPM SRO - A.4, Perform an Emergency Action Level Classification and Recommend Protective Actions (EAL-1 and EPCLA-01)

Comment accepted. The additional information provided identifies justification for changing the grading for the JPM. The answer key changed as requested.