



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

January 17, 2003

Tennessee Valley Authority  
ATTN: Mr. J. A. Scalice  
Chief Nuclear Officer and  
Executive Vice President  
6A Lookout Place  
1101 Market Street  
Chattanooga, TN 37402-2801

**SUBJECT: WATTS BAR NUCLEAR PLANT - NRC EXAMINATION REPORT  
NO. 50-390/02-301**

Dear Mr. Scalice:

During the period December 9-12, 2002, the Nuclear Regulatory Commission (NRC) administered operating examinations to employees of your company who had applied for licenses to operate the Watts Bar Nuclear Plant. At the conclusion of the examination, the examiners discussed the examination questions and preliminary findings with those members of your staff identified in the enclosed report. The written examination was administered by your staff on November 26, 2002.

Five of seven applicants passed both the written and operating examinations. There were three post examination comments which are identified in Enclosure 2.

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/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

**/RA/**

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

Docket No.: 50-390  
License No.: NPF-90

Enclosures: (See page 2)

Enclosures: 1. Report Details  
2. NRC Resolution of Facility Comments

cc w/encs:

Karl W. Singer  
Senior Vice President  
Nuclear Operations  
Tennessee Valley Authority  
Electronic Mail Distribution

James E. Maddox, Acting Vice President  
Engineering and Technical Services  
Tennessee Valley Authority  
Electronic Mail Distribution

William R. Lagergren  
Site Vice President  
Watts Bar Nuclear Plant  
Tennessee Valley Authority  
Electronic Mail Distribution

General Counsel  
Tennessee Valley Authority  
Electronic Mail Distribution

Robert J. Adney, General Manager  
Nuclear Assurance  
Tennessee Valley Authority  
Electronic Mail Distribution

Mark J. Burzynski, Manager  
Nuclear Licensing  
Tennessee Valley Authority  
Electronic Mail Distribution

Paul L. Pace, Manager  
Licensing and Industry Affairs  
Watts Bar Nuclear Plant  
Tennessee Valley Authority  
Electronic Mail Distribution

Larry S. Bryant, Plant Manager  
Watts Bar Nuclear Plant  
Tennessee Valley Authority  
Electronic Mail Distribution

County Executive  
Rhea County Courthouse  
375 Church Street, Suite 215  
Dayton, TN 37321-1300

County Executive  
Meigs County Courthouse  
Decatur, TN 37322

Lawrence E. Nanney, Director  
TN Dept. of Environment & Conservation  
Division of Radiological Health  
Electronic Mail Distribution

Ann Harris  
341 Swing Loop  
Rockwood, TN 37854

John D. White, Jr., Director  
Tennessee Emergency Management  
Agency  
Electronic Mail Distribution

Jack W. Cox  
Training Manager  
Watts Bar Training Center  
P. O. Box 2000  
Spring City, TN 37381

Distribution w/encls:  
M. Podavan, NRR  
J. Bartley, SRI  
RIDSNNRRDIPMLIPB  
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NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.: 50-390

License No.: NPF-90

Report No.: 50-390/02-301

Licensee: Tennessee Valley Authority (TVA)

Facility: Watts Bar Nuclear Plant

Location: 1260 Nuclear Plant Road  
Spring City, TN 37381

Dates: Operating Tests - December 9-12, 2002  
Written Examination - November 26, 2002

Examiners: L. Miller, Chief Examiner  
R. Baldwin, Senior Operations Engineer  
R. Monk, Operations Engineer

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

## SUMMARY OF FINDINGS

ER 05000390/02-301, Tennessee Valley Authority, 12/09/2002 -12/12/2002, Watts Bar Nuclear Plant, Unit 1, licensed operator examinations.

The NRC examiners conducted operator licensing initial examinations in accordance with the guidance of Examiner Standards, NUREG-1021, Revision 8, Supplement 1. This examination implemented the operator licensing requirements of 10 CFR §55.41, §55.43, and §55.45.

The NRC administered the operating tests during the period December 9-12, 2002. Members of the Watts Bar Nuclear Plant training staff administered the written examination on November 26, 2002. The operator licensing initial written examinations were developed by the NRC. The operating tests were developed by the Watts Bar staff from an outline submitted by the NRC. Two Reactor Operators and three of five Senior Reactor Operators passed the operating and written examinations and were issued operator licenses commensurate with the level of examination administered.

No significant issues were identified.

## Report Details

### 4. OTHER ACTIVITIES (OA)

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

##### a. Inspection Scope

The examiners developed the written examinations in accordance with the guidelines specified in NUREG-1021, Revision 8, Supplement 1. The examiners reviewed the operating examinations, which the licensee developed from an outline submitted by the NRC, for compliance with the guidelines specified in NUREG-1021.

The examiners reviewed the licensee's examination security measures while preparing and administering the examinations to ensure examination security and integrity complied with 10 CFR 55.49, Integrity of examinations and tests.

The examiners evaluated two Reactor Operator and five Senior Reactor Operator applicants who were being assessed under the guidelines specified in NUREG 1021. They administered the operating tests during the period December 9-12, 2002. Members of the Watts Bar Nuclear Plant training staff administered the written examination on November 26, 2002. The evaluations of the applicants and review of documentation were performed to determine if the applicants, who applied for licenses to operate Watts Bar Nuclear Plant, met requirements specified in 10 CFR Part 55.

##### b. Findings

No findings of significance were identified.

The licensee submitted three post examination comments concerning the written examination. The post examination comments may be accessed in the ADAMS system (ADAMS Accession Number ML023440122). The written examination and answer key may be accessed in the ADAMS system (ADAMS Accession Numbers ML023510331 and ML 023510338).

#### **4OA6** Meetings

##### Exit Meeting Summary

On December 13, 2002, the Chief Examiner discussed generic applicant performance and examination development issues with members of licensee management.

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

PARTIAL LIST OF PERSONS CONTACTED

Licensee

R. Evans, Operations Training Manager  
K. Parker, Maintenance and MOPS Manager  
T. Wallace, Operations Manager  
D. Kulisek, Assistant Plant Manager  
G. Laughlin, Acting Training Manager  
P. Pace, Licensing and Industry Affairs  
J. Cox, Training Manager

NRC

J. Reece, Resident Inspector

## NRC RESOLUTION OF FACILITY COMMENTS

### QUESTION #6 SRO:

Recommendation accepted:

The NRC agrees with the licensee's comment that answer C and D are correct answer.

The NRC reviewed the licensee's comments, the licensee's supporting information, and AOI-2, "Malfunction of the Reactor Control System." The intent of the question was to determine if the applicant was aware of 1) which circumstances allow the Bank to be aligned to the Rod (Distractors A and B) and 2) the differences in the requirements to align a Control Bank rod and a Shutdown Bank rod (Answer C and distractor D, respectively). The stem of the question was not clear enough to prevent D from also be considered correct.

In conclusion, the NRC has determined, based on the above discussion, that answer C and D are correct answers.

### QUESTION #32 SRO

Recommendation accepted:

The NRC reviewed the licensee's comments, the licensee's supporting information and agrees with the licensee's comment that with annunciator 92C, PZR LEVEL LO-HTRS OFF & LTDN CLOSED illuminated, Pressurizer level would be increasing and that none of the responses could describe this condition.

In conclusion, the NRC has determined, based on the above discussion, the question will be deleted from the exam.

### QUESTION #99 SRO:

Recommendation not accepted:

The NRC agrees with the licensee's comment that answer A is the correct answer. The NRC disagrees with the licensee's comment that distractor B is also a correct answer.

The NRC reviewed the licensee's comments, the licensee's supporting information, FR-H.2, "Steam Generator Overpressure and FR-H.3, Steam Generator High Level." Distractor B is different from answer A, in that, distractor B states that the operator will "continue with FR-H.2 to reduce S/G pressure. The pressure reduction in FR-H.2 occurs in Step 4 of the procedure. To be at this step, the operator would have to have taken the wrong path at Step 3, which is the appropriate transition step to FR-H.3 as described in answer A.

In conclusion, the NRC has determined, based on the above discussion, that answer A is the only correct answer.