



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
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ARLINGTON, TEXAS 76011-4005**

September 16, 2003

Joseph E. Venable
Vice President Operations
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Entergy Operations, Inc.
17265 River Road
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**SUBJECT: WATERFORD 3 STEAM ELECTRIC STATION, NRC EXAMINATION
REPORT 50-382/2003-301**

Dear Mr. Venable:

On August 28, 2003, the U. S. Nuclear Regulatory Commission (NRC) completed an examination at Waterford 3. The enclosed report documents the examination findings, which were discussed on August 28, 2003, with Messrs. Tom Tankersley, Kevin Walsh, and other members of your staff.

The examination included the evaluation of seven applicants for senior operator licenses. We determined that all applicants satisfied the requirements of 10 CFR Part 55, and the appropriate licenses have been issued.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure 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/

Anthony T. Gody, Chief
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Docket: 50-382
License: NPF-38

Entergy Operations, Inc.

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cc w/enclosure:

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**U.S. NUCLEAR REGULATORY COMMISSION
REGION IV**

Dockets: 50-382

Licenses: NPF-38

Report : 50-382/2003-301

Licensee: Entergy Nuclear South

Facility: Waterford 3 SES

Location: 17265 River Road
Kilona, LA 70066

Dates: August 22-28, 2003

Examiners: T. O. McKernon, Chief Examiner, Operations Branch
T. F. Stetka, Senior Operations Engineer, Operations Branch
M. E. Murphy, Senior Operations Engineer, Operations Branch

Approved By: Anthony T. Gody, Chief
Operations Branch
Division of Reactor Safety

SUMMARY OF FINDINGS

ER 05000382/2003-301, 8/22-28/2003; Waterford 3 Nuclear Generating Station, Initial Operator Licensing Examinations.

NRC examiners evaluated the competency of seven applicants for senior operator licenses at Waterford 3. The facility licensee developed the examinations using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Draft Revision 9, as part of a pilot program. Licensee proctors administered the written examination to all applicants on August 22, 2003, in accordance with the instructions provided by the chief examiner. The NRC administered the operating tests on August 25-28, 2003.

Report Details

4. OTHER ACTIVITIES (OA)

4OA4 Initial Operator License Examination

.1 Operator Knowledge and Performance

a. Examination Scope

On August 22, 2003, the licensee proctored the administration of the written examinations to all seven applicants. The licensee staff graded the written examinations, analyzed the results, and presented their analysis to the NRC on September 5, 2003.

The NRC examination team administered the various portions of the operating examination to all seven applicants on August 25-28, 2003. The seven applicants for senior operator licenses participated in four dynamic simulator scenarios. The three applicants for instant senior operators participated in a control room and facilities walkthrough test consisting of 10 system tasks, and an administrative test consisting of 4 administrative tasks. The four applicants for upgrade to senior operator participated in a control room and facilities walkthrough test consisting of 5 system tasks, and an administrative test consisting of 5 administrative tasks.

b. Findings

All seven of the applicants passed all parts of the examinations. The applicants demonstrated good 3-way communications, diagnostics, and peer checking. For the written examinations, the senior operator applicant's average score was 93.7 percent and ranged from 91 to 96 percent. Two of the candidates applying for upgrades to senior operators requested and were approved waivers from taking the reactor operator portion of the written examination as provided for in Draft Revision 9 of NUREG-1021. The text of the examination questions may be accessed in the ADAMS system under the accession numbers noted in the attachment.

The licensee's staff conducted a performance analysis for the written examinations, submitting them to the chief examiner on September 5, 2003. The analysis identified no common knowledge deficiency. The licensee submitted three questions (58, 81, 92) for the reactor operator portion of the written examination and common questions (6 and 17) from the senior operator only portion for review by the chief examiner.

The licensee's staff recommended that all three questions were valid and should "stand as is." Question 58 involved technical specification-required operator immediate actions related to adverse conditions affecting the control rod control system. The chief examiner verified that only one correct answer, "b", existed for the given conditions in the stem of the question (i.e., immediate operator actions to open the reactor trip breakers). The candidates erroneously chose answer choices inconsistent with stem conditions. The chief examiner agreed with the licensee's staff recommendation.

Question (Reactor Operator 81/Senior Operator 6) involved the use of a nomograph to determine dose received at the exclusion area boundary over a 2-hour release duration. The chief examiner verified that answer "b" (100 mrem) was the only correct answer. Multiple types of errors were made by the candidates. The chief examiner agreed with the licensee's staff recommendation.

Question (Reactor Operator 92/Senior Operator 17) was missed by greater than 50 percent of the candidates. The question involved required actions in the operational transition from Mode 5 to Mode 6 for conditions provided in the stem of the question. The chief examiner verified that only one correct answer choice existed. The licensee's staff discussed the subject matter during training, and regards the area of reduced inventory evolutions as a high importance subject matter. The licensee staff expects the candidates to know the required actions from memory. The chief examiner agreed with the licensee's staff recommendation.

The text of the examination analysis may be accessed in the ADAMS system under the accession number noted in the attachment. No remediation training was determined to be necessary following the examinations.

No findings of significance were identified.

.2 Initial Licensing Examination Development

The licensee developed the examinations in accordance with NUREG-1021, Draft Revision 9, as part of the pilot program. All licensee facility training and operations staff involved in examination preparation and validation were on a security agreement.

.2.1 Examination Outline and Examination Package

a. Examination Scope

The facility licensee submitted the integrated examination outlines on May 5, 2003. The chief examiner reviewed the submittal against the requirements of NUREG-1021, Draft Revision 9, and provided comments to the licensee. The facility licensee submitted the final draft examination package on June 30, 2003. The chief examiner reviewed the draft submittal against the requirements of NUREG-1021, Draft Revision 9, and provided comments to the licensee on the examination on July 10, 2003. The NRC conducted an onsite validation of the operating examinations and provided further comments during the week of August 4, 2003. The licensee satisfactorily completed comment resolution on August 18, 2003.

b. Findings

The NRC approved the initial examination outline and advised the licensee to proceed with the operating examination development.

The examiners determined that the written and operating examinations initially submitted by the licensee were within the range of acceptability expected for a proposed examination.

No findings of significance were identified.

.3 Simulation Facility Performance

a. Examination Scope

The examiners observed simulator performance with regard to plant fidelity during the examination validation and administration.

b. Findings

No findings of significance were identified.

.4 Examination Security

a. Examination Scope

The examiners reviewed examination security both during the onsite preparation week and examination administration week for compliance with NUREG-1021 requirements. Plans for simulator security and applicant control were reviewed and discussed with licensee personnel.

b. Findings

No findings of significance were identified.

4OA5 Management Meeting

.1 Exit Meetings

The chief examiner presented the examination results to Messrs. Tom Tankersley, Training Manager, Kevin Walsh, Operations Manager, and other members of the licensee's management staff on August 28, 2003. The licensee acknowledged the findings presented.

The licensee did not identify as proprietary any information or materials examined during the examination.

ATTACHMENT

KEY POINTS OF CONTACT

Licensee

K. Walsh, Operations Manager
T. Tankensley, Training Manager
B. Fletcher, Operations Training Supervisor
K. Levines, Operations Trainer

NRC

Michael Hay, Senior Resident Inspector

ADAMS DOCUMENTS REFERENCED

Accession No. ML032510907 - Written examination for instant senior operators
Accession No. ML032510918 - Written examination for upgrade senior operators
Accession No. ML032510896 - Written examination performance analysis