



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION IV  
1600 E LAMAR BLVD  
ARLINGTON, TX 76011-4511

May 15, 2014

Mr. Michael R. Chisum  
Site Vice President  
Entergy Operations, Inc.  
17265 River Road  
Killona, LA 70057-0751

SUBJECT: WATERFORD STEAM ELECTRIC STATION, UNIT 3 - NRC EXAMINATION  
REPORT 05000382/2014301

Dear Mr. Chisum:

On April 11, 2014, the U.S. Nuclear Regulatory Commission (NRC) completed an initial operator license examination at the Waterford Steam Electric Station, Unit 3. The enclosed report documents the examination results and licensing decisions. The preliminary examination results were discussed on April 11, 2014, with you and other members of your staff. A telephonic exit meeting was conducted on April 22, 2014, with Mr. J. Signorelli, Acting Training Manager, who was provided the NRC licensing decisions.

The examination included the evaluation of six applicants for reactor operator licenses, two applicants for instant senior reactor operator licenses, and four applicants for upgrade senior reactor operator licenses. The license examiners determined that all of the twelve applicants satisfied the requirements of 10 CFR Part 55, and the appropriate licenses have been issued. There were no post examination comments requiring resolution submitted by your staff. The Enclosure contains details of this report.

No findings were identified during this examination.

In accordance with 10 CFR 2.390 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/*

Vince Gaddy, Chief  
Operations Branch  
Division of Reactor Safety

Docket: 50-382  
License: NPF-38

Enclosure: NRC Examination Report 05000382/2014301

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See next page:

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Letter to Mr. Michael R. Chisum from Vincent Gaddy, dated May 15, 2014

cc: Electronic Distribution for Waterford Steam Electric Station

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**U.S. NUCLEAR REGULATORY COMMISSION**

**REGION IV**

Docket: 05000382

License: NPF-38

Report: 05000382/2014301

Licensee: Entergy Operations, Inc.

Facility: Waterford Steam Electric Station, Unit 3

Location: Hwy. 18  
Killona, Louisiana

Dates: April 2 through April 22, 2014

Inspectors: C. Steely, Chief Examiner, Senior Operations Engineer  
K. Clayton, Senior Operations Engineer  
S. Hedger, Operations Engineer  
T. Farina, Operations Engineer  
D. Strickland, Operations Engineer

Approved By: Vincent Gaddy  
Chief, Operations Branch  
Division of Reactor Safety

## SUMMARY

ER 05000382/2014301; 04/02/2014 – 04/22/2014; Waterford Steam Electric Station, Unit 3; Initial Operator Licensing Examination Report.

NRC examiners evaluated the competency of six applicants for reactor operator licenses, two applicants for instant senior reactor operator licenses, and four applicants for upgrade senior reactor operator licenses at Waterford Steam Electric Station, Unit 3.

The licensee developed the examinations using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 9, Supplement 1. The written examination was administered by the licensee on April 2, 2014. NRC examiners administered the operating tests on April 7-11, 2014.

The examiners determined that all of the applicants satisfied the requirements of 10 CFR Part 55, and the appropriate licenses have been issued.

**A. NRC-Identified and Self-Revealing Findings**

None

**B. Licensee-Identified Violations**

None

## REPORT DETAILS

### 4. OTHER ACTIVITIES (OA)

#### 4OA5 Other Activities (Initial Operator License Examination)

##### .1 License Applications

###### a. Scope

NRC examiners reviewed all license applications submitted to ensure each applicant satisfied relevant license eligibility requirements. Examiners also audited four license applications in detail to confirm that they accurately reflected the subject applicant's qualifications. This audit focused on the applicant's experience and on-the-job training, including control manipulations that provided significant reactivity changes.

###### b. Findings

No findings were identified.

##### .2 Examination Development

###### a. Scope

NRC examiners reviewed integrated examination outlines and draft examinations submitted by the licensee against the requirements of NUREG-1021. The NRC examination team conducted an onsite validation of the operating tests.

###### b. Findings

NRC examiners provided outline, draft examination, and post-validation comments to the licensee. The licensee satisfactorily completed comment resolution prior to examination administration.

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

##### .3 Operator Knowledge and Performance

###### a. Scope

On April 2, 2014, the licensee proctored the administration of the written examinations to all twelve applicants. The licensee staff graded the written examinations, analyzed the results, and presented their analysis to the NRC on April 11, 2014.

The NRC examination team administered the various portions of the operating tests to all applicants on April 7-11, 2014.

b. Findings

No findings were identified.

All applicants passed the written examination and all parts of the operating tests. The final written examination and post examination analysis may be accessed in the ADAMS system under the accession numbers noted in the attachment. There were no post-examination comments as indicated in the licensee submittal.

The examination team noted the following generic weaknesses associated with applicant performance on the simulator JPM section and the scenario portion of the operating test, respectively:

- Several applicants failed to correctly perform the immediate actions of the Balance-of-Plant (BOP) operator for a reactor trip as required by OP-902-000, "Standard Post Trip Actions." Actions for this JPM are required to come from memory and be performed in the correct sequence, both of which were noted as a weakness. The licensee generated Condition Report CR-WF3-2014-01738 to address this observation of applicant performance.
- In scenario 3, event 3, the crews were required to lower Controlled Bleed-off temperature by lowering Component Cooling Water temperature due to a Reactor Coolant Pump seal failure. OP-901-130, "Reactor Coolant Pump Malfunction," Section E1, directs the operator to lower Controlled Bleed-off temperature by any of the following three methods:
  - Start Dry Cooling Tower Fans
  - Start Auxiliary Component Cooling Water Pump(s) AND associated Wet Cooling Tower Fans.
  - Start Auxiliary Component Cooling Water Pump(s) AND lower ACC-126A(B) setpoint.

Three of the four crews initially only started Dry Cooling Tower Fans while Component Cooling Water temperature continued to rise. Only when temperature neared the Reactor Coolant Pump (RCP) trip setpoint did two crews lower the ACC-126A setpoint, which had a real effect on arresting the temperature rise; one crew never lowered ACC-126A setpoint. Discussion with the licensee after the scenarios were completed revealed that starting the Dry Cooling Tower Fans would only have a more immediate effect if the temperature outside was much cooler. This is not addressed in the procedures. The licensee generated Condition Report CR-WF3-2014-01739 to address this procedural observation.

- There were four questions missed by 50 percent or more of the applicants, with each question analyzed by the licensee as required by NUREG-1021. All four questions' weaknesses were determined to be knowledge

deficiencies. The licensee wrote TEAR W3-2014-280 to address these this observation of applicant performance.

Copies of all individual examination reports were sent to the facility Training Manager for evaluation and determination of appropriate remedial training.

.4 Simulation Facility Performance

a. Scope

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

b. Findings

No findings were identified.

.5 Examination Security

a. Scope

The NRC examiners reviewed examination security for examination development during both the onsite preparation week and examination administration week for compliance with 10 CFR 55.49 and NUREG-1021. Plans for simulator security and applicant control were reviewed and discussed with licensee personnel.

b. Findings

No findings were identified.

**40A6 Meetings, Including Exit**

The chief examiner presented the preliminary examination results to Mr. M. Chisum, Site Vice President, and other members of the staff on April 11, 2014. A telephonic exit was conducted on April 22, 2014, between Mr. Chris Steely, Chief Examiner, and Mr. J. Signorelli, Acting Training Manager.

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

ATTACHMENT: SUPPLEMENTAL INFORMATION



## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### **Licensee Personnel**

M. Chisum, Site Vice President  
K. Cook, General Manager Plant Operations  
R. Simpson, Operations Training Superintendent  
J. Signorelli, Acting Training Manager  
J. Mendoza, Trainer (Lead Exam Developer)

#### **NRC Personnel**

M. Davis, Senior Resident Inspector  
C. Speer, Resident Inspector

## **ADAMS DOCUMENTS REFERENCED**

Accession No. ML14119A366 - FINAL WRITTEN EXAMS  
(Delayed release until May 1, 2016)

Accession No. ML14119A371 - FINAL OPERATING TEST

Accession No. ML14119A376 - POST EXAM ANALYSIS