



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
1600 EAST LAMAR BOULEVARD
ARLINGTON, TEXAS 76011-4511

March 28, 2022

Mr. John Ferrick, Site Vice President
Entergy Operations, Inc.
17265 River Road
Killona, LA 70057

SUBJECT: WATERFORD STEAM ELECTRIC STATION, UNIT 3 - NRC EXAMINATION
REPORT 05000382/2022301

Dear Mr. Ferrick:

On February 24, 2022, the U.S. Nuclear Regulatory Commission (NRC) completed an initial operator license examination at your Waterford Steam Electric Station, Unit 3. The enclosed report documents the examination results and licensing decisions. The preliminary examination results were discussed on February 24, 2022, with Mr. V. Ford, Operations Training Superintendent, and other members of your staff. A telephonic exit meeting was conducted on March 17, 2022, with Mr. V. Ford, who was provided the NRC licensing decisions.

The examination included the evaluation of four applicants for reactor operator licenses, three applicants for instant senior reactor operator licenses, and two applicants for upgrade senior reactor operator licenses. The license examiners determined that all nine applicants satisfied the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 55 and the appropriate licenses have been issued. There were no post-examination comments submitted by your staff. The enclosure contains details of this report.

No findings were identified during this examination.

J. Ferrick

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This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> and at the NRC Public Document Room in accordance with 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,



Signed by Gepford, Heather
on 03/28/22

Heather J. Gepford, Chief
Operations Branch
Division of Operating Reactor Safety

Docket No. 05000382
License No. NPF-38

Enclosure:
Examination Report 05000382/2022301,
w/attachment: Supplemental Information

cc w/ encl: Distribution via LISTSERV®

WATERFORD STEAM ELECTRIC STATION, UNIT 3 - NRC EXAMINATION
 REPORT 05000382/2022301 – MARCH 28, 2022

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**U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report**

Docket Number: 05000382

License Number: NPF-38

Report Number: 05000382/2022301

Enterprise Identifier: L-2022-OLL-0014

Licensee: Entergy Operations, Inc.

Facility: Waterford Steam Electric Station, Unit 3

Location: Killona, Louisiana

Inspection Dates: February 21, 2022, to March 17, 2022

Inspectors: K. Clayton, Chief Examiner, Senior Operations Engineer
C. Osterholtz, Senior Operations Engineer
B. Bergeon, Operations Engineer
M. Doyle, Operations Engineer
R. Clagg, Senior Resident Inspector, Examiner Under Instruction

Approved By: Heather J. Gepford, Chief
Operations Branch
Division of Reactor Safety

Enclosure

SUMMARY

Examination Report 05000382/2022301; February 21, 2022–March 17, 2022; Waterford Steam Electric Station, Unit 3; Initial Operator Licensing Examination Report

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

The NRC developed the examinations using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 11. The written examination was administered by the licensee on March 9, 2022. The NRC examiners administered the operating tests on February 21–24, 2022.

The NRC examiners determined that all 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

OTHER ACTIVITIES – INITIAL LICENSE EXAM

.1 License Applications

a. Scope

The NRC examiners reviewed all license applications submitted to ensure each applicant satisfied relevant license eligibility requirements. The NRC examiners also audited three of the license applications in detail to confirm that they accurately reflected the subject applicant's qualifications. This audit focused on the applicants' 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

The exams were originally scheduled to be administered in January 2022, but due to damage to the area around New Orleans from Hurricane Ida the licensee requested the operating test and written examination dates be moved to February 21-24, 2022, and March 9, 2022, respectively. The NRC agreed to these dates.

The NRC examiners developed the outlines, operating tests, and written examinations using the requirements of NUREG-1021, Revision 11. The NRC examiners conducted an onsite validation of the operating tests the week of January 24, 2022. Two complete written examination validations were completed by the licensee in December 2021.

b. Findings

The NRC examiners provided draft examination and post-validation comments to the licensee. All comments were satisfactorily resolved between the licensee and NRC on January 12, 2022. The licensee satisfactorily completed comment resolution prior to examination administration.

.3 Operator Knowledge and Performance

a. Scope

On March 9, 2022, the licensee proctored the administration of the written examinations to all nine applicants. The licensee staff graded the written examinations, analyzed the results, and presented their analysis to the NRC on March 15, 2022. The NRC completed two independent gradings of the written examinations on March 16, 2022.

The NRC examination team administered the operating tests to all applicants on February 21–24, 2022.

b. Findings

No findings were identified.

All applicants passed the written examination and all parts of the operating tests. The final written examinations 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 one generic weakness associated with applicant performance on the dynamic scenarios and it is listed below:

- Two of three crews failed to identify valves that failed to reposition on a safety injection actuation signal and required manual operations.

This deficiency was captured in the licensee's corrective action program as Condition Report CR-WF3-2022-01417.

Post-examination analysis revealed eight generic weaknesses associated with applicant performance on the written examination and they are listed below:

- 1) Question 27 – 77 percent answered incorrectly due to applicant knowledge weakness on the topic of function and alarm setpoint for N-16 main steam line radiation monitors.
- 2) Question 36 – 55 percent answered incorrectly due to applicant knowledge weakness on the topic of indications of a tube rupture on the affected steam generator.
- 3) Question 39 – 66 percent answered incorrectly due to applicant knowledge weakness on the topic of failure modes/design of main feedwater isolation valves.
- 4) Question 46 – 55 percent answered incorrectly due to applicant knowledge weakness on the topic of operations of the main control room fire detection panel.
- 5) Question 70 – 88 percent answered incorrectly due to applicant knowledge weakness on the topic of the requirements to enter a radiologically controlled area without a brief.
- 6) Question 71 – 66 percent answered incorrectly due to applicant knowledge weakness on the topic of the definition of the most affected steam generator during multiple plant casualties.
- 7) Question 83 – 60 percent answered incorrectly due to applicant knowledge weakness on the topic of technical specifications associated with pressurizer pressure.

- 8) Question 96 – 60 percent answered incorrectly due to applicant knowledge weakness on the topic of temporary modifications.

All eight questions were determined to be valid and free of flaws per the licensee's procedures. These deficiencies were captured in the licensee's corrective action program as Condition Report CR-WF3-2022-01417.

Copies of all individual examination reports were sent to the operations training superintendent 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 examination security and applicant control were reviewed and discussed with licensee personnel.

b. Findings

No findings were identified.

EXIT MEETINGS AND DEBRIEFS

Exit Meeting Summary

The chief examiner presented the preliminary examination results to Mr. V. Ford, Operations Training Superintendent, and other members of the staff on February 24, 2022. A telephonic exit was conducted on March 17, 2022, between Mr. K. Clayton, Chief Examiner, and Mr. V. Ford, Operations Training Superintendent. The licensee did not identify any information or materials used during the examination as proprietary.

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

J. Ferrick, Site Vice-President
M. Lewis, General Manager of Plant Operations
J. Clavelle, Operations Director
R. Ledet, Training Manager
S. Cooper, Shift Manager of Training
J. Lewis, Regulatory Assurance Manager
V. Ford, Operations Training Superintendent
W. Wesley, Operations Training Supervisor
D. Cornett, Exam Writer
R. Peter, Exam Writer

NRC Personnel

C. Stott, Acting Senior Resident Inspector

ADAMS DOCUMENTS REFERENCED

Accession No. ML22080A229 - FINAL WRITTEN EXAMS
Accession No. ML22080A228 - FINAL OPERATING TEST
Accession No. ML22081A030 - POST-EXAMINATION ANALYSIS