



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

December 19, 2022

Mr. Brad Kapellas, Site Vice President
Entergy Operations, Inc.
Grand Gulf Nuclear Station
P.O. Box 756
Port Gibson, MS 39150

SUBJECT: GRAND GULF NUCLEAR STATION NRC EXAMINATION REPORT
05000416/2022301

Dear Mr. Kapellas:

On December 6, 2022, the U.S. Nuclear Regulatory Commission (NRC) completed an initial operator license examination at your Grand Gulf Nuclear Station, Unit 1. The enclosed report documents the examination results and licensing decisions. The preliminary examination results were discussed on October 14, 2022, with you and other members of your staff. A telephonic exit meeting was conducted on December 6, 2022, with Mr. S. Reeves, lead exam author, who was provided the NRC licensing decisions.

The examination included the evaluation of four applicants for reactor operator licenses, seven applicants for instant senior reactor operator licenses, and one applicant for an upgrade senior reactor operator license. The license examiners determined that all 12 applicants satisfied the requirements of 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.

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 12/19/22

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

Docket No. 0500416
License No. NPF-29

Enclosure:
Examination Report 05000416/2022301
w/attachment: Supplemental Information

Electronic distribution via LISTSERV

GRAND GULF NUCLEAR STATION NRC EXAMINATION REPORT 05000416/2022301
DOCUMENT DATD DECEMBER 19, 2022.

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By: CCO ☒ Yes ☐ No ☒ Publicly Available ☐ Sensitive NRR-079

OFFICE	SOE:OB	SOE:OB	OE:OB(RI)	OE:OB	OE:OB	C:OB
NAME	COsterholtz	JKirkland	KMurphy	NHernandez	DYou	HGepford
SIGNATURE	CCO	JCK	KMM	NAH	DDY	HJG
DATE	12/15/2022	12/15/2022	12/16/2022	12/15/2022	12/15/2022	12/19/2022

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U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Number: 05000416

License Number: NPF-29

Report Number: 05000416/2022301

Enterprise Identifier: L-2022-OLL-0038

Licensee: Entergy Operations, Inc.

Facility: Grand Gulf Nuclear Station, Unit 1

Location: Port Gibson, Mississippi

Examination Dates: October 10, 2022, to October 14, 2022

Examiners: C. Osterholtz, Chief Examiner, Senior Operations Engineer
N. Hernandez, Operations Engineer
J. Kirkland, Senior Operations Engineer
K. Murphy, Operations Engineer (NRC Region I)
D. You, Operations Engineer

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

Enclosure

SUMMARY

Examination Report 05000416/2022; 10/10/2022-12/06/2022; Grand Gulf Nuclear Station, Unit 1; Initial Operator Licensing Examination Report.

The NRC examiners evaluated the competency of four applicants for reactor operator licenses, seven applicants for instant senior reactor operator licenses, and one applicant for an upgrade senior reactor operator license at Grand Gulf Nuclear Station, Unit 1.

The licensee developed the examinations using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 12. The written examination was administered by the licensee on October 17, 2022. The NRC examiners administered the operating tests on October 10-14, 2022.

The NRC examiners determined that all 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 EXAMINATION

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

b. Findings

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

The 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 October 17, 2022, the licensee proctored the administration of the written examinations to all 12 applicants. The licensee staff graded the written examinations, analyzed the results, and presented their analysis to the NRC on November 7, 2022.

The NRC examination team administered the various portions of the operating tests to all applicants on October 10-14, 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 no generic weaknesses associated with applicant performance on the operating tests. Post-examination analysis revealed nine generic weaknesses associated with applicant performance on the written examination. All nine weaknesses were attributed to knowledge deficiencies in which a training needs analysis is planned to be performed:

- Knowledge of the proper way to control reactor vessel water temperature using shutdown cooling (Question 28)
- Knowledge of the RCIC system flow / turbine speed controller with a loss of the flow feedback signal (Question 37)
- Knowledge of a loss of instrument air on the heater drain system (Question 48)
- Knowledge of reactor recirculation indications with a jet pump ram failure (Question 55)
- Knowledge of the entry requirements for a locked high radiation area (Question 68)
- Knowledge of the definition of neutron generation time (Question 70)
- Knowledge of the instrument air pressure that would require the direction of a plant shutdown (Question 79)
- Knowledge of the battery room temperature that would require declaring the batteries inoperable (Question 89)
- Knowledge of emergency preparedness procedures (Question 93)

These deficiencies were captured in the licensee's corrective action program as corrective action document WT-WTGGN-2021-00067 CA-77. 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 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 you and other members of the staff on October 14, 2022. A telephonic exit was conducted on December 6, 2022, between Mr. C. Osterholtz, chief examiner, and Mr. S. Reeves, lead exam author. The licensee did not identify any information or materials used during the examination as proprietary.

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

B. Kapellas, Site Vice President
T. Allbritton, Operations Training
J. Byrd, Operations Training
M. Coffman, Corporate Training Manager
G. Ellis, Operations Training
M. Ellis, Exam Author
G. Flynn, Performance Improvement Director
J. Hardy, Regulatory Assurance Manager
C. Hesenbein, Assistant Operations Manager
K. Huff, Operations Director
J. Mergner, Class Mentor
R. Meyer, Assistant Operations Manager
S. Reeves, Exam Author
J. Smith, Operations Training
A. Watson, Operations Training
R. Williams, General Manager Plant Operations

NRC Personnel

Timothy Steadham, Senior Resident Inspector
Anthony Smallwood, Resident Inspector

ADAMS DOCUMENTS REFERENCED

Accession No. ML22342B257 - FINAL WRITTEN EXAMS
Accession No. ML22342B255 - FINAL OPERATING TEST
Accession No. ML22342B259 - POST-EXAMINATION ANALYSIS