



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

**REGION IV
1600 EAST LAMAR BOULEVARD
ARLINGTON, TEXAS 76011-4511**

December 10, 2020

Mr. Robert Franssen, 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 05000416/2020302**

Dear Mr. Franssen:

On November 19, 2020, the U.S. Nuclear Regulatory Commission (NRC) completed an initial operator license examination at Grand Gulf Nuclear Station. The enclosed report documents the examination results and licensing decisions. The preliminary examination results were discussed on October 22, 2020, with Mr. B. Wertz, General Manager Plant Operations, and other members of your staff. A telephonic exit meeting was conducted on November 19, 2020, with Mr. T. Tharp, Supervisor, Operations Training, who was provided the NRC licensing decisions.

The examination included the evaluation of five applicants for instant senior reactor operator licenses. The license examiners determined that three of the five applicants satisfied the requirements of 10 CFR Part 55, and the appropriate licenses have been issued. There were two post-examination comments submitted by your staff. Enclosure 1 contains details of this report and Enclosure 2 summarizes post-examination comment resolution.

No findings were identified during this examination.

R. Franssen

2

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,

Gregory E. Werner, Chief
Operations Branch
Division of Reactor Safety

Docket No. 05000416
License No. NPF-29

Enclosures:

1. Examination Report 05000416/2020302
w/attachment: Supplemental
Information
2. NRC Post-Examination Comment
Resolution

cc: Electronic Distribution to Grand Gulf
Nuclear Station

GRAND GULF NUCLEAR STATION - NRC INITIAL OPERATOR LICENSING EXAMINATION
 REPORT 05000416/2020302 – DECEMBER 10, 2020

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ADAMS ACCESSION NUMBER: ML20339A378

SUNSI Review: ADAMS: Non-Publicly Available Non-Sensitive Keyword:
 By: MOH Yes No Publicly Available Sensitive NRC-002

OFFICE	SOE:OB	OE:OB	SIS:RCB	C:PBS	C:OB	
NAME	MHayes	BBergeon	CSteely	JKozal	GWerner	
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DATE	11/23/2020	11/24/2020	11/24/2020	12/03/2020	12/10/2020	

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

Docket Number: 05000416

License Number: NPF-29

Report Number: 05000416/2020302

Enterprise Identifier: L-2020-OLL-0012

Licensee: Entergy Operations, Inc.

Facility: Grand Gulf Nuclear Station, Unit 1

Location: Port Gibson, Mississippi

Inspection Dates: October 19, 2020, to November 19, 2020

Inspectors: M. Hayes, Chief Examiner, Senior Operations Engineer
B. Bergeon, Operations Engineer
C. Steely, Senior Intelligence Specialist

Approved By: Gregory E. Werner, Chief
Operations Branch
Division of Reactor Safety

SUMMARY

Examination Report 05000416/2020302; October 19 - November 19, 2020; Grand Gulf Nuclear Station, Unit 1; Initial Operator Licensing Examination Report

The NRC examiners evaluated the competency of five applicants for instant senior reactor operator licenses at Grand Gulf Nuclear Station, Unit 1.

The licensee developed the examinations using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 11. The written examination was administered by the licensee on October 26, 2020. The NRC examiners administered the operating tests on October 19-22, 2020.

The NRC examiners determined that three of the five 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 one of the 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

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 26, 2020, the licensee proctored the administration of the written examinations to all five applicants. The licensee staff graded the written examinations, analyzed the results, and presented their analysis and post-examination comments to the NRC on November 5, 2020.

The NRC examination team administered the various portions of the operating tests to all applicants from October 19-22, 2020.

b. Findings

No findings were identified.

All applicants passed all parts of the operating test. Three out of five applicants passed the written examination. The final examinations and post-examination analysis and comments may be accessed in the ADAMS system under the accession numbers noted in the attachment.

The examination team noted no generic weaknesses associated with applicant performance on the operating test. Post examination analysis revealed nine generic weaknesses associated with applicant performance on the written examination:

- low pressure core spray injection pressure
- residual heat removal system procedure precautions and limitations
- direct current electrical bus alignment and procedures
- loss of power to the residual heat removal system while in containment spray mode of operation
- relief requirements for the at-the-controls operator
- restoration of the auxiliary building with elevated drywell temperature
- control room ventilation precautions and limitations
- event classification timing
- area access controlled by the on-shift senior reactor operator

These weaknesses were captured in the licensee's corrective action program as Condition Report CR-GGN-2020-11110. 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.

EXIT MEETINGS AND DEBRIEFS

Exit Meeting Summary

The chief examiner presented the preliminary examination results to Mr. B. Wertz, General Manager Plant Operations, and other members of the staff on October 22, 2020. A telephonic exit was conducted on November 19, 2020, between Mr. M. Hayes, Chief Examiner, and Mr. T. Tharp, Supervisor, Operations Training.

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

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

Brad Wertz, General Manager Plant Operations
Ryan Meyer, Superintendent, Operations Training
Tracy Tharp, Supervisor, Operations Training
Steve Reeves, Lead Exam Developer
Billy Newman, Shift Manager, Operations Training
Keith Huff, Manager, Operations
Greg Hawkins, Director, Regulatory and Performance Improvement
Dave Ellis, Senior Licensing Specialist
Jim Shaw, Manager, Regulatory Assurance
Bobby Gibson, Manager, Training

ADAMS DOCUMENTS REFERENCED

Accession No. ML20328A207 - FINAL WRITTEN EXAMS
Accession No. ML20328A208 - FINAL OPERATING TEST
Accession No. ML20328A282 - POST-EXAMINATION ANALYSIS-COMMENTS

NRC Resolution to the Grand Gulf Nuclear Station Post-Examination Comments

A complete text of the licensee's post-examination analysis and comments can be found in ADAMS under Accession Number ML20328A282.

SRO QUESTION 78

COMMENT: The licensee recommended accepting answer D in addition to answer A. This question contained a loss of coolant accident coincident with a loss of drywell cooling which caused an elevated drywell temperature. The applicants were then asked what procedures will be used to restore the auxiliary building and maximize drywell cooling. The licensee contends that since the automatic isolations off-normal event procedure (ONEP) is entered for auxiliary building restoration, and the automatic isolations ONEP directs the use of the drywell chilled water system operation instruction, then the automatic isolation ONEP is sufficient for answering the question.

NRC RESOLUTION: The NRC disagrees with the licensee's recommendation to accept both answers of A and D as correct and maintains answer A as the only correct answer. The question asks, what procedure(s) will be used to restore the auxiliary building **AND** to maximize drywell cooling. Since this a two-part question the answer needs to satisfy both parts in order to be considered as the correct answer. The first part of the question is answered by the automatic isolation ONEP. If drywell temperature was below 200°F, then drywell cooling could be maximized using only the automatic isolations ONEP. Since the stem clearly states drywell temperature is greater than 200°F a caution in the automatic isolations ONEP is met. This caution requires the use of the system operation instruction for drywell chilled water for a controlled startup. Since both procedures will be used to restore the auxiliary building and to maximize drywell cooling the only correct answer remains answer A.

SRO QUESTION 90

COMMENT: The licensee recommended accepting answer A in addition to answer D. This question contained a reactor scram followed by a loss of the startup level control valve. The applicants were asked to identify the necessary procedure transition to mitigate the event and the next action to correct the problem. The licensee contends that a procedure transition is not required to mitigate the event, so two answers should be accepted for this question.

NRC RESOLUTION: The NRC disagrees with the licensee to accept answers A and D as correct. During review of the license comments, the NRC determined there would not be a procedure transition since the procedure to mitigate the failure had already been entered due to conditions in the stem. Therefore, the NRC determined the question does not have an answer that fully supports the question and has deleted this question from the examination.