



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
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January 24, 2001

William A. Eaton, Vice President  
Operations - Grand Gulf Nuclear Station  
Entergy Operations, Inc.  
P.O. Box 756  
Port Gibson, Mississippi 39150

SUBJECT: GRAND GULF NUCLEAR STATION - NRC EXAMINATION REPORT  
NO. 50-416/00-302

Dear Mr. Eaton:

On December 18, 2000, the NRC completed an operator licensing examination at your Grand Gulf Nuclear Station. The enclosed report documents the inspection findings, which were discussed on December 19, 2000, with Mr. M. Shelly.

The inspection included an evaluation of two applicants for senior reactor operator licenses. This was a licensee-authored retake written examination that did not involve an NRC site visit. We determined that the applicants satisfied the requirements of 10 CFR Part 55, and the licenses have been issued.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and 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/NRC/ADAMS/index.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

John L. Pellet, Chief  
Operations Branch  
Division of Reactor Safety

Docket No.: 50-416  
License No.: NPF-29

Enclosure:  
NRC Inspection Report No.  
50-416/00-302

Entergy Operations Inc.

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**ENCLOSURE**

U.S. NUCLEAR REGULATORY COMMISSION  
REGION IV

Docket No.: 50-416  
License No.: NPF-29  
Report No.: 50-416/00-302  
Licensee: Entergy Operations, Inc.  
Facility: Grand Gulf Nuclear Station  
Location: St. Francisville, La.  
Dates: December 18, 2000  
Inspectors: Michael E. Murphy, Chief Examiner, Operations Branch  
Approved By: John L. Pellet, Chief  
Operations Branch  
Division of Reactor Safety

## EXECUTIVE SUMMARY

IR 05000416/00-302; on 12/18/2000; Entergy Operations, Inc.; Grand Gulf Nuclear Station; Senior Reactor Operator Written Retake Examination.

NRC examiners evaluated the competency of two senior reactor operator license applicants for issuance of an operating license at the Grand Gulf Nuclear Station. The licensee developed the retake written examination using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 8, Supplement 1. NRC examiners reviewed, and approved the examination. The written examination was administered on December 18, 2000, by facility proctors in accordance with the guidance in NUREG-1021.

### **Cross-Cutting Issues: Human Performance**

- The two senior reactor operator license applicants passed the examination (Section 04.1).

## Report Details

### I. Operations

#### **04 Operator Knowledge and Performance**

##### 04.1 Initial Written Examination

###### a. Scope

On December 18, 2000, the facility licensee proctored the administration of the written examination approved by the NRC to the individuals who had reapplied for a senior reactor operator license. The licensee proposed the grades for the written examinations and evaluated the results for question validity and training weaknesses. The chief examiner reviewed the licensee's results.

###### b. Findings

The minimum passing score was 80 percent. The applicants' scores for the written examination were 91 and 95 percent. The licensee's post-administration analysis identified that the administered examination was acceptable. There were no post-examination comments or changes to the written examination recommended by the licensee or identified by examiner review of the results. The licensee and chief examiner reviewed the results for any knowledge deficiencies in common areas and concluded that there were none.

The two applicants passed the written examination.

#### **05 Operator Training and Qualification**

##### 05.1 Initial Licensing Examination Development

The facility licensee developed the initial licensing examination in accordance with guidance provided in NUREG-1021, "Operating Licensing Examination Standards," Revision 8, Supplement 1.

###### 05.1.1 Examination Outline

###### a. Scope

The facility licensee submitted the initial examination outline on October 26, 2000. Examiners reviewed the submittal against the requirements of NUREG-1021, Revision 8, Supplement 1.

b. Findings

The chief examiner determined that the initial examination outline satisfied NRC requirements. The licensee submitted an adequate examination outline.

05.1.2 Examination Package

a. Scope

The draft examination was transmitted by the licensee to the NRC on December 1, 2000. The examiners reviewed the examination against the requirements of NUREG-1021, Revision 8, Supplement 1.

b. Observations and Findings

The draft written examination contained 100 questions. The draft examination was technically valid, discriminated at the proper level, and was responsive to the outline submitted by the licensee. The written examination was adequate for administration as submitted. The examiners developed clarification or enhancement comments on several of the questions. The licensee staff incorporated these comments promptly and in an excellent manner. All proposed enhancements were accepted by the examiners. The test material was adequate for administration as submitted by the licensee. The text of the examination questions may be accessed in the ADAMS system under the accession number listed in Attachment 1.

**V. Management Meetings**

**X1 Exit Meeting Summary**

The chief examiner telephonically presented the inspection results to Mr. M. Shelly on December 19, 2000. Mr. Shelly acknowledged the findings presented.

The licensee did not identify as proprietary any information or materials examined during this inspection.



**ATTACHMENT 1**

**PARTIAL LIST OF PERSONS CONTACTED**

Licensee

M. Ellis, Instructor  
M. Rausch, Instructor  
M. Shelly, Director, Training

**ADAMS DOCUMENTS REFERENCED**

GG Written Retake Exam - 12/2000 - Final Reference Examination and Answer Key - SRO-  
Accession No. ML010230521

## NRC'S REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

<b>Reactor Safety</b>	<b>Radiation Safety</b>	<b>Safeguards</b>
<ul style="list-style-type: none"> <li>•Initiating Events</li> <li>•Mitigating Systems</li> <li>•Barrier Integrity</li> <li>•Emergency Preparedness</li> </ul>	<ul style="list-style-type: none"> <li>•Occupational</li> <li>•Public</li> </ul>	<ul style="list-style-type: none"> <li>•Physical Protection</li> </ul>

To monitor these seven cornerstones of safety, the NRC used two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. And RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plan, as described in the Action Matrix.

More information can be found at: <http://www.nrc.gov/NRR/OVERSIGHT/index.html>.