



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
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March 3, 2005

Jeffrey S. Forbes
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**SUBJECT: ARKANSAS NUCLEAR ONE, UNIT 2 - NRC EXAMINATION
REPORT 05000368/2005-301**

Dear Mr. Forbes:

On January 27, 2005, the NRC completed an examination at your Arkansas Nuclear One, Unit 2 facility. The enclosed report documents the examination findings, which were discussed on January 27, 2005, with Mr. A. Heflin and other members of your staff.

The examination included the evaluation of four applicants for reactor operator licenses, one applicant for an instant senior operator license, and three applicants for upgrading their reactor operator licenses to senior operator licenses. The written and operating examinations were developed using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 9. The license examiners determined that all eight of the applicants satisfied the requirements of 10 CFR Part 55, and the appropriate licenses have been issued.

In accordance with 10 CFR 2.790 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/

Anthony T. Gody, Chief
Operations Branch
Division of Reactor Safety

Docket: 50-368
License: NPF-6

Entergy Operations, Inc.

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Enclosure:
NRC Examination Report
05000368/2005-301

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ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket: Docket: 50-368
License: License: NPF-6
Report No.: 05000368/2005-301
Licensee: Entergy Operations, Inc.
Facility: Arkansas Nuclear One, Unit 2
Location: Junction of Hwy. 64W and Hwy. 333 South
Russellville, Arkansas
Dates: January 24-27, 2005
Examiners: T. Stetka, Senior Operations Engineer, Operations Branch
R. Lantz, Senior Emergency Preparedness Inspector, Operations Branch
S. Garchow, Operations Engineer, Operations Branch
Approved By: Anthony T. Gody, Chief
Operations Branch
Division of Reactor Safety

SUMMARY OF FINDINGS

ER 05000368/2005-301; 01/24-27/2005; Arkansas Nuclear One, Unit 2; Initial Operator Licensing Examinations.

NRC examiners evaluated the competency of four applicants for reactor operator licenses, one applicant for an instant senior operator license, and three applicants for upgrading their reactor operator licenses to senior operator licenses. The written and operating examinations were developed by the licensee using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 9. The written examination was administered by the facility to the applicants on January 21, 2005. The NRC examiners administered the operating tests on January 24-27, 2005.

Cornerstone: Human Performance

No findings of significance were identified (Section 40A4.1).

Report Details

4. OTHER ACTIVITIES (OA)

4OA4 Initial Operator License Examination

.1 License Applications

a. Scope

The examiners reviewed the applications submitted by the licensee for each of the license applicants. The applications were submitted on NRC Form 398, "Personal Qualification Statement," and NRC Form 396, "Certification of Medical Examination by Facility Licensee." The examiners also audited a sample of the license applications 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

During the review of the 398 forms, the examiners were unable to determine whether the applicants had sufficient control manipulations based on the documentation provided by the licensee. Additionally, the examiners noted that the licensee considered a reactor trip to be a significant control manipulation. The examiners informed the licensee that a reactor trip was not listed in the representative sampling of significant control manipulations listed in 10 CFR Part 55.31(a)(5). In response to the examiner's finding, the licensee revised the 398 forms by providing additional documentation to support the control manipulations and had all applicants that took credit for the reactor trip perform additional control manipulations. As a result, all applicants had the prerequisite number of control manipulations.

Revision 9 to NUREG 1022, ES-202, paragraph C.1.a, specifies that the names and license numbers of all personnel involved in an applicant's medical examination should be entered on NRC Form 396. In discussions with the licensee during review of the 396 forms, it was determined that the name and license numbers of all participants involved in the medical examinations were not included on the forms. The licensee re-issued the 396 forms with the names and license numbers of all involved medical personnel documented on the forms.

.2 Operator Knowledge and Performance

a. Scope

On January 21, 2005, the licensee proctored the administration of the written examination to all eight applicants. The licensee staff graded the written examinations, analyzed the results, and presented the proposed grades together with their analysis to the NRC on January 27, 2005.

The NRC examination team administered the operating test to the applicants on January 24-27, 2005. The applicants for reactor operator licenses and the applicant for an instant senior operator license participated in 2 dynamic simulator scenarios. The applicants for upgrade senior operator licenses participated in 1 dynamic simulator scenario. The 4 applicants for reactor operator participated in a control room and facilities walkthrough test consisting of 11 system tasks, and an administrative test consisting of 1 task in each of four areas. The 3 applicants that were upgrading their operator license to a senior operator license participated in a control room and facilities walkthrough test consisting of 5 system tasks. The applicant seeking an instant senior operator license participated in a control room and facilities walkthrough test consisting of 10 system tasks. The administrative test for all senior operator applicants consisted of performing tasks in 5 areas.

b. Findings

All eight of the applicants passed all parts of the operating test. For the written examinations, the reactor operator applicants' average score was 90.4 percent and the senior operator applicants' average score was 91 percent. The reactor operator applicant scores ranged from 84 to 96 percent and the senior operator applicant scores ranged from 89 to 96 percent. The text of the examination questions may be accessed in the ADAMS system under the accession numbers noted in the attachment.

Chapter ES-403 and Form ES-403-1 of NUREG 1021 require the licensee to analyze the validity of any written examination questions that were missed by half or more of the applicants. The licensee conducted this performance analysis for six questions that met this criteria and submitted the analysis to the chief examiner on January 27, 2005. This analysis concluded that all six questions were valid as written and that no training program changes were necessary.

.3 Initial Licensing Examination Development

The licensee developed the examinations in accordance with NUREG-1021, Revision 9. Licensee facility training and operations staff involved in examination development were on a security agreement.

.3.1 Examination Outline and Examination Package

a. Scope

The facility licensee submitted the operating examination outlines on October 29, 2004. Examiners reviewed the submittal against the requirements of NUREG-1021, Revision 9. The facility licensee submitted the draft examination package on November 29, 2004. Examiners reviewed the draft submittals against the requirements of NUREG-1021, Revision 9 and provided comments to the licensee on December 29, 2004. The chief examiner conducted an onsite validation of the examinations and provided further comments during the week of January 3, 2005. The licensee satisfactorily completed comment resolution on January 6, 2005.

b. Findings

Examiners approved the initial examination outline with minor comments and advised the licensee to proceed with the operating examination development.

The chief examiner determined that the operating examinations initially submitted by the licensee were within the range of acceptability expected for a proposed examination.

No findings of significance were identified.

.3.2 Simulation Facility Performance

a. Scope

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

b. Findings

No findings of significance were identified.

.3.3 Examination Security

a. Scope

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

b. Findings

No findings of significance were identified.

4OA5 Management Meeting

.1 Exit Meetings

The chief examiner presented the examination results to Mr. A. Heflin, Operations Manager, and other members of your staff on January 27, 2005. The licensee acknowledged the findings presented.

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

ATTACHMENT

KEY POINTS OF CONTACT

Licensee

R. Byford, Operations Training Supervisor
T. Mayfield, Operations Training Supervisor
W. Coble, Operations Instructor
M. Blanchard, Operations Instructor

ADAMS DOCUMENTS REFERENCED

Accession No. ML050490389 Final Written Reference Exam
Accession No. ML050490395 Licensee Written Exam Performance Analysis