



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION IV  
612 EAST LAMAR BLVD, SUITE 400  
ARLINGTON, TEXAS 76011-4125

APR 12 2010

Kevin T. Walsh, Vice President, Operations  
Arkansas Nuclear One  
Entergy Operations, Inc.  
1448 S.R. 333  
Russellville, AR 72802

SUBJECT: ARKANSAS NUCLEAR ONE, UNIT 1 - NRC EXAMINATION REPORT  
05000313/2010301

Dear Mr. Walsh:

On March 16, 2010, the U.S. Nuclear Regulatory Commission (NRC) completed an initial operator license examination at Arkansas Nuclear One, Unit 1. The enclosed report documents the examination findings and licensing decisions. The preliminary examination findings were discussed on March 11, 2010, with Mr. Kevin Walsh, Vice President, Operations, and other members of your staff. A telephonic exit meeting was conducted on March 24, 2010, with Mr. Randal Martin, Classroom Ops Instructor Superintendent, Arkansas Nuclear One, Unit 1, who was provided the NRC licensing decisions.

The examination included the evaluation of nine 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 of the 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 to this letter contains the details of this report.

No findings of significance were identified during this examination.

In accordance with 10 CFR 2.390 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,

A handwritten signature in black ink, appearing to read "Mark S. Haire", with a stylized flourish at the end.

Mark S. Haire, Chief  
Operations Branch  
Division of Reactor Safety

Docket: 50-313  
License: DPR-51

Enclosure:  
NRC Examination Report 05000313/2010301

cc w/enclosure:  
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**U.S. NUCLEAR REGULATORY COMMISSION**

**REGION IV**

Docket: 50-313

License: DPR-51

Report: 05000313/2010301

Licensee: Entergy Operations, Inc.

Facility: Arkansas Nuclear One, Unit 1

Location: Junction of Hwy. 64W and Hwy. 333 South  
Russellville, Arkansas

Dates: March 8, 2010, to March 12, 2010 Operating Test  
March 16, 2010 Written Examination

Inspectors: K. Clayton, Senior Operations Engineer  
C. Osterholtz, Senior Operations Engineer  
J. Hopkins, Reactor Technology Instructor  
G. Apger, Operations Engineer

Approved By: Mark S. Haire, Chief  
Operations Branch  
Division of Reactor Safety

## SUMMARY OF FINDINGS

ER05000313/2010301; 03/08/2010 to 3/16/2010; Arkansas Nuclear One, Unit 1; Initial Operator Licensing Examination Report.

NRC examiners evaluated the competency of nine applicants for reactor operator licenses, three applicants for instant senior reactor operator licenses and two applicants for upgrade senior reactor operator licenses at Arkansas Nuclear One, Unit 1.

The licensee developed the examinations using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 9, Supplement 1. The written examination was administered by the licensee on March 16, 2010. NRC examiners administered the operating tests on March 8 - 11, 2010.

The examiners determined that all fourteen of the applicants satisfied the requirements of 10 CFR Part 55, and the appropriate licenses have been issued.

A. NRC-Identified and Self-Revealing Findings

No findings of significance were identified.

B. Licensee-Identified Violations

None.

## REPORT DETAILS

### 4. OTHER ACTIVITIES (OA)

#### 4OA5 Other Activities (Initial Operator License Examination)

##### .1 License Applications

###### a. Scope

NRC examiners reviewed all license applications submitted to ensure each applicant satisfied relevant license eligibility requirements. The examiners also audited two 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 and Observations

No findings of significance were identified. One observation that was made by NRC headquarters staff during a review of waiver requests for power plant experience for several reactor operator applicants was that some of the licensing basis documents were not consistent and led to confusion. On page 2 of ES-202 of NUREG-1021, Revision 9, Supplement 1, it states that "the staff encourages all facility licensees to review their requirements and commitments related to RO and SRO education and experience and to update their documentation (e.g., FSAR, TSs, and training program descriptions) to enhance consistency and minimize confusion." The licensee had several documents that were sent to the NRC staff at headquarters for the waiver reviews that had conflicting information. The headquarters staff reminded the chief examiner that the licensee is responsible for maintaining their documentation commitments and their programs and that they follow those programs.

##### .2 Examination Development

###### a. Scope

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

###### b. Findings

NRC examiners provided outline, draft examination and post-validation comments to the licensee. The licensee satisfactorily completed comment resolution prior to examination administration; however some of these changes and requests were not incorporated into the final examination as requested immediately after the validation week. The condition report for these issues is CR-2010-0374.

NRC examiners determined that 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 March 16, 2010, the licensee proctored the administration of the written examinations to all fourteen applicants. The licensee staff graded the written examinations, analyzed the results, and presented their analysis to the NRC on March 18, 2010.

The NRC examination team administered the various portions of the operating tests to all fourteen applicants on March 8 - 11, 2010.

b. Findings

No findings of significance were identified.

All of the applicants passed the written examination and all parts of the operating test. There were no post-examination comments as indicated in the licensee submittal. The final written examinations and post-examination analysis may be accessed in the ADAMS system under the accession numbers noted in the attachment; however, the final written examination, outline, and key will be released to the public on April 25, 2012.

The examination team noted the following generic weaknesses: surveillance package reviews, knowledge of emergency diesel generator output breaker anti-pump features, emergency diesel generator cooling versus time unloaded, emergency diesel generator critical trouble alarm knowledge and procedure application, emergency feedwater trip throttle valve linkage knowledge and operation, diagnosis of flow transmitter failure PDT-1239 for reactor coolant pump seal injection, T34A/B alarm verification for main feed pump lube oil storage tank, P4A alarm knowledge deficiency for service water pump high-high bearing temperature alarm. The condition report for these items is documented as TEAR ANO 2010-214.

.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 of significance were identified.

.5 Examination Security

a. Scope

The NRC examiners reviewed examination security 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 of significance were identified.

**4OA6 Meetings, Including Exit**

The chief examiner presented the preliminary examination results to Messrs. Kevin Walsh, Site Vice-President, Brad Berryman, ANO General Manager, Karl Jones ANO Operations Manager, and other members of the staff on March 11, 2010. A telephonic exit was conducted on March 25, 2010, between Messrs. Kelly Clayton, Chief Examiner, and Randal Martin, ANO Classroom Ops Instructor Superintendent, Uni1.

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

ATTACHMENT: SUPPLEMENTAL INFORMATION



## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### **Licensee Personnel**

Kevin Walsh, Site Vice-President,  
Brad Berryman, ANO General Manager,  
Karl Jones ANO Operations Manager  
Sherry Cotton, Training Manager  
Randal Martin, ANO Classroom Ops Instructor Superintendent, U1

#### **NRC Personnel**

Alfred Sanchez, Senior Resident Inspector  
Jeff Rotton, Resident Inspector

### **ADAMS DOCUMENTS REFERENCED**

Accession No. ML 100850470 - FINAL WRITTEN EXAMS  
Accession No. ML 100850475 - POST EXAM ANALYSIS [AND COMMENTS]