



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION IV
1600 E LAMAR BLVD
ARLINGTON, TX 76011-4511

December 8, 2014

Mr. Jeremy Browning, Site Vice President
Arkansas Nuclear One
Entergy Operations, Inc.
1448 SR 333
Russellville, AR 72802-0967

**SUBJECT: ARKANSAS NUCLEAR ONE, UNIT 1 - NRC EXAMINATION
REPORT 05000313/2014303**

Dear Mr. Browning:

On November 21, 2014, 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 results and licensing decisions. The preliminary examination results were discussed on November 20, 2014, with Mr. R. Martin, Operations Training Superintendent, and other members of your staff. A telephonic exit meeting was conducted on December 2, 2014, with Mr. R. Martin, Operations Training Superintendent, who was provided the NRC licensing decisions.

The examination included the evaluation of seven applicants for reactor operator licenses, four applicants for instant senior reactor operator licenses and three 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 were identified during this examination.

J. Browning

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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,

/RA/

Vincent G. Gaddy, Chief
Operations Branch
Division of Reactor Safety

Docket: 50-313
License: DPR-51

Enclosure:
NRC Examination Report 05000313/2014303

cc w/encl: Electronic Distribution

J. Browning

- 2 -

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Letter to Jeremy Browning from Vincent R. Gaddy, dated December 8, 2014

SUBJECT: ARKANSAS NUCLEAR ONE, UNIT 1 - NRC EXAMINATION
REPORT 05000313/2014303

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U.S. NUCLEAR REGULATORY COMMISSION

REGION IV

Docket: 05000313

License: DPR-51

Report: 05000313/2014303

Licensee: Entergy Operations, Inc.

Facility: Arkansas Nuclear One, Unit 1

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

Dates: November 14 through December 2, 2014

Inspectors: C. Osterholtz, Senior Operations Engineer
C. Cowdrey, Operations Engineer
S. Garchow, Senior Operations Engineer
N. Hernandez, Resident Inspector
M. Kennard, Operations Engineer

Approved By: Vincent G. Gaddy
Chief, Operations Branch
Division of Reactor Safety

SUMMARY

ER05000313/2014303; 11/14/2014 – 12/02/2014; Arkansas Nuclear One, Unit 1; Initial Operator Licensing Examination Report.

NRC examiners evaluated the competency of seven applicants for reactor operator licenses, four applicants for instant senior reactor operator licenses, and three 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 November 14, 2014. NRC examiners administered the operating tests during the week of November 17, 2014.

The examiners determined that all 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 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 three 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

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

b. Findings

No findings were identified.

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

NRC examiners determined that the 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 November 14, 2014, the licensee proctored the administration of the written examinations to all 14 applicants. The licensee staff graded the written examinations, analyzed the results, and presented their analysis to the NRC on November 21, 2014.

The NRC examination team administered the various portions of the operating tests to all fourteen applicants during the week of November 17, 2014.

b. Findings

No findings were identified.

All of the applicants passed the written examination and all parts of the operating test. 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 the following generic weaknesses:

- There were inconsistent communication techniques being used by the different operating crews. Three-way communication was neglected in some cases, crew briefings and updates were sporadic, and in some cases not used at all.
- Multiple applicants demonstrated difficulty in the ability to adequately demonstrate their expertise when performing in-plant job performance measures, particularly when simulating the operation of in-plant equipment.
- Multiple applicants demonstrated difficulty in the ability to correctly line up multiple channels of plant parameters in the simulator to the “Y” channel after a loss of power occurred on the “X” channel.
- Multiple senior reactor operator applicants demonstrated a difficulty in the ability to correctly make administrative changes to plant procedures.

These deficiencies were entered into the licensee’s corrective action program as Training Evaluation Action Request (TEAR) ANO 2013-206, Action 19.

.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. One observation was documented in Attachment 2 of this report.

.5 Examination Security

a. Scope

The NRC examiners reviewed examination security during both the on-site validation 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.

40A6 Meetings, Including Exit

The chief examiner presented the preliminary examination results to Messrs. R. Martin, Operations Training Superintendent, and other members of the staff on November 20, 2014. A telephonic exit was conducted on December 2, 2014, between Messrs. Clyde Osterholtz, Senior Operations Engineer, Chief Examiner, and R. Martin, Operations Training Superintendent.

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

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

R. Alejandro, Simulator Support
D. Bice, Acting Manager, Regulatory Assistance
J. Cork, Examination Developer
P. Harris, Shift Manager, Operations Training
R. Keele, Superintendent, Operations Training
R. Martin, Superintendent, Operations Training
C. Miller, License Class Coordinator, Unit 2
D. Perkins, Senior Manager, Operations
D. Peterson, Manager, Operations
D. Reed, Training Instructor, Operations
J. Tracy Taylor, Superintendent, Simulator and Support
B. Wooten, License Class Coordinator

NRC Personnel

M. Young, Resident Inspector

ADAMS DOCUMENTS REFERENCED

Accession No. ML14336A373 – FINAL WRITTEN EXAMS
(Will be released to the public on November 14, 2016)

Accession No. ML14336A376 – FINAL OPERATING EXAM

Accession No. ML14336A386 – POST EXAM ANALYSIS

Facility Licensee: Arkansas Nuclear One
Unit 1
Facility Docket No.: 50-313
Operating Test Administered on: Week of
November 17, 2014

This form is to be used only to report observations. These observations do not constitute audit or inspection findings and, without further verification and review in accordance with IP 71111.11, are not indicative of noncompliance with 10 CFR 55.46. No licensee action is required in response to these observations.

While conducting the simulator portion of the operating tests, examiners observed the following item:

Item	Description
Nuclear Instrumentation (NI) Input to the Integrated Control System (ICS)	On one occasion, the NI input to ICS spuriously transferred back to the "X" instrument from the "Y" instrument, causing an unexpected ICS plant transient. The licensee entered this deficiency into their corrective action program as Discrepancy Report (DR)-0107.