



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
1600 EAST LAMAR BOULEVARD
ARLINGTON, TEXAS 76011-4511

June 13, 2019

Mr. Richard L. Anderson, Site Vice President
Arkansas Nuclear One
Entergy Operations, Inc.
N-TSB-58
1448 S.R. 333
Russellville, AR 72802-0967

SUBJECT: ARKANSAS NUCLEAR ONE, UNIT 2 - NRC EXAMINATION
REPORT 05000368/2019301

Dear Mr. Anderson:

On May 16, 2019, the U.S. Nuclear Regulatory Commission (NRC) completed an initial operator license examination at Arkansas Nuclear One, Unit 2. The enclosed report documents the examination results and licensing decisions. The preliminary examination results were discussed on April 25, 2019, with you and other members of your staff. A telephonic exit meeting was conducted on May 16, 2019, with Mr. Greg Kilpatrick, Training Manager, who was provided the NRC licensing decisions.

The examination included the evaluation of seven applicants for reactor operator licenses and four applicants for upgrade senior reactor operator licenses. The license examiners determined that all applicants satisfied the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 55, and the appropriate licenses have been issued. There were no post-examination comments submitted by your staff. The enclosure contains details of this report.

No findings were identified during this examination.

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

R. Anderson

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Room in accordance with 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

/RA/

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

Docket No. 50-368
License No. NPF-6

Enclosure:
Examination Report 05000368/2019301

cc: Electronic Distribution to Arkansas
Nuclear One

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

Docket Number: 05000368

License Number: NPF-6

Report Number: 05000368/2019301

Enterprise Identifier: L-2019-OLL-0005

Licensee: Entergy Operations, Inc.

Facility: Arkansas Nuclear One, Unit 2

Location: Russellville, Arkansas

Inspection Dates: April 22, 2019, to May 16, 2019

Inspectors: J. Kirkland, Chief Examiner, Senior Operations Engineer
K. Clayton, Senior Operations Engineer
C. Osterholtz, Senior Operations Engineer
T. Farina, Operations Engineer
M. Doyle, Under Instruction, Operations Engineer

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

Enclosure

SUMMARY

ER 05000368/2019301; ARKANSAS NUCLEAR ONE, UNIT 2; INITIAL OPERATOR LICENSING EXAMINATION REPORT

The NRC examiners evaluated the competency of seven applicants for reactor operator licenses and four applicants for upgrade senior reactor operator licenses at Arkansas Nuclear One, Unit 2.

The NRC developed the written examination and the licensee developed the operating test using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 11. The written examination was administered by the NRC on May 2, 2019. The NRC examiners administered the operating tests on April 22 – 25, 2019.

The NRC examiners determined that all 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 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

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 the written examination, operating test outlines, draft examination, and post-validation comments to the licensee. The licensee satisfactorily completed operating test comment resolution prior to examination administration.

The NRC examiners determined the operating test initially submitted by the licensee was within the range of acceptability expected for a proposed examination.

.3 Operator Knowledge and Performance

a. Scope

On May 2, 2019, the NRC proctored the administration of the written examinations to all applicants. The NRC graded the written examinations and the licensee analyzed the results and presented their analysis to the NRC on May 6, 2019.

The NRC examination team administered the various portions of the operating tests to all applicants on April 22 – 25, 2019.

b. Findings

No findings were identified.

All applicants passed the written examination and all parts of the operating tests. 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 four generic weaknesses associated with applicant performance on the written examination. The applicants displayed weaknesses in knowledge of:

- power supplies associated with refueling water tank valves
- requirements to reset a containment spray actuation signal
- systems required to commence establishing a vacuum on the main condenser
- technical specification shutdown requirements associated with one inoperable emergency core cooling high pressure safety injection train.

The licensee generated Condition Report WT-WTANO-2019-00183 to track the generic weaknesses associated with the written examination. The licensee determined that the questions were satisfactorily written and required no change. The condition report should ensure a training analysis is conducted to review for possible adjustments to the program and/or training material. 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. R. Anderson, Site Vice President, and other members of the staff on April 25, 2019. A telephonic exit was conducted on May 16, 2019, between Mr. J. Kirkland, Chief Examiner, and Mr. G. Kirkpatrick, Training Manager. The licensee did not identify any information or materials used during the examination as proprietary.

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

G. Kirkpatrick, Training Manager
R. Martin, Operations Training Superintendent
D. Lacy, Simulator Instructor
B. Coble, Exam Writer

NRC Personnel

C. Henderson, Senior Resident Inspector

ADAMS DOCUMENTS REFERENCED

Accession No. ML19149A197 - FINAL WRITTEN EXAMS
Accession No. ML19149A195 - FINAL OPERATING TEST
Accession No. ML19149A198 - POST-EXAM ANALYSIS

ARKANSAS NUCLEAR ONE, UNIT 2 - NRC EXAMINATION REPORT 05000368/2019301 –
 JUNE 13, 2019

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ADAMS ACCESSION NUMBER: ML19164A320

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

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