



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

June 15, 2022

Joseph Sullivan, 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 1 - NRC EXAMINATION
REPORT 05000313/2022301

Dear Mr. Sullivan:

On May 19, 2022, the U.S. Nuclear Regulatory Commission (NRC) completed an initial operator license examination at your Arkansas Nuclear One, Unit 1. The enclosed report documents the examination results and licensing decisions. The preliminary examination results were discussed on April 7, 2022, with you and other members of your staff. A telephonic exit meeting was conducted on May 19, 2022, with Mr. K. Smith, lead exam author, who was provided the NRC licensing decisions.

The examination included the evaluation of seven applicants for reactor operator licenses and six applicants for upgrade senior reactor operator licenses. The license examiners determined that all 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 contains details of this report.

No findings were identified during this examination.

J. Sullivan

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

Sincerely,

 /for

Heather J. Gepford, Chief
Operations Branch
Division of Operating Reactor Safety

Docket No. 05000313
License No. DPR-51

Enclosure:
Examination Report 05000313/2022301

Electronic Distribution via Listserv

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

Docket Number: 05000313

License Number: DPR-51

Report Number: 05000313/2022301

Enterprise Identifier: L-2022-OLL-0027

Licensee: Entergy Operations, Inc.

Facility: Arkansas Nuclear One, Unit 1

Location: Russellville, Arkansas

Inspection Dates: April 4, 2022, to May 19, 2022

Inspectors: C. Osterholtz, Chief Examiner, Senior Operations Engineer
J. DeMarshall, Senior Operations Engineer
M. Doyle, Operations Engineer
T. Farina, Senior Operations Engineer
M. Hayes, Operations Engineer

Approved By: Heather J. Gepford, Chief
Operations Branch
Division of Operating Reactor Safety

Enclosure

SUMMARY

Examination Report 05000313/2022301; 04/04/2022-05/19/2022; Arkansas Nuclear One, Unit 1; Initial Operator Licensing Examination Report.

The NRC examiners evaluated the competency of seven applicants for reactor operator licenses and six 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 12. The written examination was administered by the licensee on April 13, 2022. The NRC examiners administered the operating tests on April 4-7, 2022.

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 EXAMINATION

.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 three of the license applications in detail to confirm that they accurately reflected the subject applicant's qualifications. This audit focused on the applicants' 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 outline, draft examination, and post-validation comments to the licensee. The licensee satisfactorily completed comment resolution prior to examination administration.

The NRC examiners determined 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 April 13, 2022, the licensee proctored the administration of the written examinations to all thirteen applicants. The licensee staff graded the written examinations, analyzed the results, and presented their analysis to the NRC on April 20, 2022.

The NRC examination team administered the various portions of the operating tests to all applicants on April 4-7, 2022.

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 Agencywide Documents Access and Management System (ADAMS) under the accession numbers noted in the attachment. There were no post-examination comments as indicated in the licensee submittal.

The examination team noted no generic weaknesses associated with applicant performance on the operating tests. Post-examination analysis revealed eight generic weaknesses associated with applicant performance on the written examination. All eight weaknesses were attributed to knowledge deficiencies in which a training needs analysis is planned to be performed:

- Manual response to a degraded pressurizer level instrument (Question 20)
- Manual response to a degraded hydrogen recombiner (Question 56)
- Power level on intermediate range monitors during startup (Question 71)
- Procedure usage on loss of nuclear instrument power (Question 80)
- Required actions on a loss of neutron flux (Question 82)
- Permission requirements for moving fuel (Question 95)
- Shift Manager responsibility for troubleshooting plans (Question 96)
- Initial command and control assignments during emergencies (Question 99)

These deficiencies were captured in the licensee's corrective action program as corrective action document WT-WTANO-2020-69; CA-108. 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 regarding 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 examination 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 you and other members of the staff on April 7, 2022. A telephonic exit was conducted on May 19, 2022, between Mr. C. Osterholtz, Chief Examiner, and Mr. K. Smith, lead exam author. The licensee did not identify any information or materials used during the examination as proprietary.

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

J. Sullivan, Site Vice President
W. Daniel, Operations Training Supervisor
J. Fields, U2 ILO Training Supervisor
R. Frederes, Training Manager
M. Hall, Licensing
J. Jones, Operations Manager
R. McCormick, U1 NLO
L. McGee, U1 SRO
K. McNeil, Operations Manager
C. Miller, U2 NRC Exam Author
C. Norwood, Exam Author
D. Oertling, Operations Director
R. Possage, Exam Author
B. Slater, ILO Instructor
K. Smith, U1 Exam Lead
B. Spears, ILO Class Lead Instructor

NRC Personnel

R. Bywater, Senior Resident Inspector
T. DeBey, Resident Inspector

ADAMS DOCUMENTS REFERENCED

Accession No. ML22133A291 - FINAL WRITTEN EXAMS
Accession No. ML22133A290 - FINAL OPERATING TEST
Accession No. ML22133A292 - POST-EXAMINATION ANALYSIS

ARKANSAS NUCLEAR ONE, UNIT 1 - NRC EXAMINATION REPORT 05000313/2022301
 DATED – JUNE 15, 2022

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ADAMS ACCESSION NUMBER: ML221158A000

SUNSI Review: ADAMS: Non-Publicly Available Non-Sensitive Keyword:
 By: CCO Yes No Publicly Available Sensitive NRR-079

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SIGNATURE	/RA/	/RA/	/RA/ via email	/RA/ via email	/RA/	JLDJ
DATE	6/13/2022	6/14/2022	6/14/2022	6/14/2022	6/13/2022	6/13/2022
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SIGNATURE	KDC1 for					
DATE	6/15/2022					

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