



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

April 19, 2021

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

SUBJECT: ARKANSAN NUCLEAR ONE UNIT 1 – NOTIFICATION OF INSPECTION (NRC INSPECTION REPORT 05000313/2021003) AND REQUEST FOR INFORMATION

Dear Mr. John Dinelli:

During the week of June 28, 2021, two inspectors from the Nuclear Regulatory Commission's (NRC) Region IV office will perform the baseline biennial requalification inspection at Arkansas Nuclear One Unit 1, using NRC Inspection Procedure 71111.11B, "Licensed Operator Requalification Program."

Experience has shown that this inspection is a resource intensive inspection both for the NRC inspectors and your staff. To minimize the impact to your onsite resources and to ensure a productive inspection, we have enclosed a request for documents needed for this inspection. These documents have been divided into three groups:

- The first group (Section A of the enclosure) identifies information to be provided prior to the inspection to ensure that the inspectors are adequately prepared.
- The second group (Section B of the enclosure) identifies the information the inspectors will need upon arrival at the site.
- The third group (Section C of this enclosure) identifies the items which are necessary to close out the inspection and are usually sent a few weeks after the inspectors have left the site.

It is important that all these documents are up to date and complete to minimize the number of additional documents requested during the preparation and/or the onsite portions of the inspection.

We have discussed the schedule for these inspection activities with your staff and understand that our regulatory contact for this inspection will be Mr. Billy Daniel of your training organization. Our inspection dates are subject to change based on your updated schedule of examination activities. If there are any questions about this inspection or the material requested, please contact me, Matt Doyle, at 817-200-1437, 419-202-4140, or msd2@nrc.gov.

This letter does not contain new or amended information collection requirements subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). Existing information collection requirements were approved by the Office of Management and Budget, control number 3150-0018. The NRC may not conduct or sponsor, and a person is not required to respond to, a request for information or an information collection requirement unless the requesting document displays a currently valid Office of Management and Budget control number.

This letter and its enclosure 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 Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

/RA/

Matthew Doyle, Operations Engineer
Operations Branch
Division of Reactor Safety

Docket No. 05000313
License No. DPR-51

Enclosure:
Initial Request for Information
Biennial Requalification Inspection

**Initial Request for Information
Biennial Requalification Inspection
Arkansas Nuclear One Unit 1**

Inspection Report: 05000313/2021003

Inspection Dates: June 28, 2021 to July 2, 2021

Inspection Procedure: IP 71111.11B, "Licensed Operator Requalification Program"

Lead Inspector: Matthew Doyle, Operations Engineer

A. The following information is requested to support inspection preparation activities. These items are listed by section as they appear in the inspection module (i.e., 03.04a, 03.04b, etc.). Requested materials should be sent in an electronic format on CD/DVD to arrive at the Region IV office no later than June 7, 2021.

- CD/DVD to: US Nuclear Regulatory Commission, Region IV
ATTN: Matthew Doyle
1600 E. Lamar Blvd
Arlington, TX 76011

General Requests:

- List of licensed operators (senior reactor operator (SRO) and reactor operator (RO)) by crew (operating and staff)
- Training and Operations Department organization charts (with qualified licensed operator requalification (LOR) evaluators identified)
- Procedures that identify process for revising and maintaining licensed operator (LO) continuing training program up to date
- List of outstanding LOR program changes
- List of plant events and industry operating experience incorporated into LOR program since last biennial requalification
- Audits and/or self-assessment reports addressing the licensed operator requalification training program
- Last two years of Simulator Review Committee (or equivalent) meeting minutes
- Last two years of Curriculum Review Committee (or equivalent) meeting minutes
- A summary report of all condition reports related to operator actions/errors in the control room

Enclosure

- Any revised requalification training that was based on licensed operator performance issues

03.04a: Biennial Requalification Written Examinations

- The current and approved biennial written examination schedule
- The current requalification cycle written examination results for both SRO & RO that have already been administered up to the week prior to the inspectors' arrival onsite.
- All written examinations that have been approved for administration up to and including the week before the inspectors are onsite. This will need to have adequate password protection or double envelope protection if mailed via regular mail per NUREG-1021.
- The current requalification cycle examination methodology (sample plan)

03.04b: Annual Requalification Operating Tests

- The schedule for the operating tests (job performance measures (JPMs) and scenarios) to be given the week of June 28, 2021.
- The operating tests (JPMs & scenarios) (password protected and provide separately via telephone at later date) to be given the week of June 28, 2021
- Current requalification cycle operating tests (SRO & RO) and results up to the week prior to the inspection inspectors' arrival onsite
- All 2020 NRC required annual operating tests
- Current requalification cycle operating test methodology (sample plan)

03.04c: Administration of an Annual Requalification Operating Test

- All procedures used to administer the annual operating test
- All procedures used to assess operator performance
- All procedures that describe conduct of simulator training
- All procedures used to test, operate, and maintain the simulator

03.04d: Requalification Examination Security

- Submit any tracking tools that you use to prevent excessive overlap on the written examinations and meet the intent of sampling all required topics on a periodic basis.
- Submit any tracking tools that you use to prevent excessive overlap on the operating tests and meet the intent of sampling all required malfunctions (including major

events, instrument/component malfunctions, technical specification calls, etc.) on a periodic basis.

- All procedures that describe examination security, including procedures used to develop the examinations that include guidelines on overlap between examinations in current exam cycle tests and prior year examinations
- List of all condition reports since the last biennial requalification inspection related to examination security and overlap

03.04e: Remedial Training and Re-Examinations

- List of remedial training conducted or planned since last requalification exam (includes training provided to operators to enable passing requalification exam and training provided to correct generic or individual weaknesses observed during previous requalification exam cycle)
- Remediation plans (lesson plans, reference materials, and attendance documentation)

03.04f: Operator License Conditions

- All procedures and program documentation for maintaining active operator licenses, tracking training attendance, and ensuring medical fitness of licensed operators
- All procedures and associated documentation that supports reactivation of any SRO/RO license (operating or staff crew) since the last biennial inspection

03.04g: Control Room Simulator

- All simulator management and configuration procedures if not already provided
- Simulator discrepancy report summary list for all open discrepancy reports and summary list for those items closed since July 2019.
- Primary parameters tested to verify core physics parameters (such as moderator temperature coefficient, integral rod worth). The applicable reference graphs from the plant physics data book (electronic or other means as available) should also be included as well as the test procedures used and the acceptance criteria with results.
- All simulator modification packages that are on hold, delayed, or not completed in the last two years
- A list of simulator modification packages completed in the last two-year window

B. The following information is requested to support the onsite inspection activities. Requested materials should be available to the inspectors, either electronically or hardcopy, upon site arrival on June 28, 2021.

03.03: Requalification Exam Results / 03.04a and 03.04b: Biennial Requalification Written Exam and Annual Requalification Operating Tests Quality

- All operating tests (JPMs & scenarios) to be given in all subsequent weeks after onsite week, if available
- All results up to the day the inspectors leave the site

03.04f: Conformance with Operator License Conditions

- Access to licensed operators' records (operating and staff crews)
- Access to licensed operators' training attendance records
- Access to licensed operators' medical records

03.04g: Control Room Simulator Performance

- Simulator discrepancies from July 2019. This should include all open and closed simulator discrepancy reports, including the documentation/justification for closure.
- Acceptance test documentation, including hardware and software model revisions at the time of acceptance (as available)
- Documentation that validates current models, including the thermal-hydraulics and neutronics models, to the actual plant
- All current model deficiencies, including the final safety analysis report vs design differences in the simulator (any documentation on this)
- Summary list of modifications from July 2019
- Plant modifications (both hardware and software) completed on the simulator by due date from July 2019
- Simulator differences lesson plan used in training (current to June 28, 2021)
- The complete book of all simulator annual performance test packages (usually in a single book but may be electronic or in single test packages), complete with all transient tests, steady state tests, and malfunction tests. This should also include the test procedures for each test, the acceptance criteria, and results. For each transient test, the reference chart should be included or an equivalent subject matter expert review versus the simulator results with a write-up for any differences beyond the American National Standards Institute (ANSI) standard requirements.

- All test packages used to verify core physics parameters (such as moderator temperature coefficient and integral rod worth). The applicable reference graphs from the plant physics data book (electronic or other means as available) should also be included as well as the test procedures used and the acceptance criteria with results.
- All simulator tests, configuration management, and related documents available in the room for inspectors to review. This includes training needs analysis packages, Simulator Review Committee meeting minutes, etc.
- Current copy of ANSI 3.5 standard you are committed to for simulator testing

C. Arkansas Nuclear One Unit 1 is required to send the final results summary (see Table 1 below) and any remaining exams and operating tests that have not been reviewed to the regional office lead inspector for this inspection for final review and comparison against the Significance Determination Tools to communicate the exit results for the inspection.

TABLE 1: EXAMINATION RESULTS

1. Total number of licensed operators.	
2. Number of licensed operators administered a requalification examination required by 10 CFR 55.59(a).	
3. Number of individual licensed operators who failed any portion of a requalification examination (written, JPM, or individual simulator scenario failures).	
4. Divide line 3 by line 2 to obtain the individual requalification examination failure rate. Line 3/Line 2.	%
5. Number of crews administered simulator scenarios as part of a requalification examination required by 10 CFR 55.59(a).	
6. Number of crews who performed unsatisfactorily on the simulator scenarios.	
7. Divide line 6 by line 5 to obtain the crew simulator scenario failure rate. Line 6/Line 5.	%

ARKANSAN NUCLEAR ONE UNIT 1 – NOTIFICATION OF INSPECTION (NRC INSPECTION REPORT 05000313/2021003) AND REQUEST FOR INFORMATION – DATED APRIL 19, 2021

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ADAMS ACCESSION NUMBER: ML21109A243

☒ SUNSI Review ADAMS: ☐ Non-Publicly Available ☒ Non-Sensitive Keyword:
 By: Matthew Doyle ☒ Yes ☐ No ☒ Publicly Available ☐ Sensitive NRC-002

OFFICE	OE:DRS/OB	OE:DRS/OB				
NAME	BBergeon	MDoyle				
SIGNATURE	BB	MD				
DATE	4/6/2021	4/6/2021				

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