



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

July 6, 2022

Mr. Adam Heflin
Executive Vice President/
Chief Nuclear Officer
Arizona Public Service Company
P.O. Box 52034, MS 7602
Phoenix, AZ 85072-2034

SUBJECT: PALO VERDE NUCLEAR GENERATING STATION UNITS 1, 2, AND 3 –
NOTIFICATION OF INSPECTION (NRC INSPECTION
REPORT 05000528/2022004, 05000529/2022004, 05000530/2022004 AND
REQUEST FOR INFORMATION

Dear Mr. Heflin:

During the week of September 26, 2022, three inspectors from the Nuclear Regulatory Commission's (NRC) Region IV office will perform the baseline biennial requalification inspection at Palo Verde Nuclear Generating Station Units 1, 2, and 3, 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. In order 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 team has left the site.

It is important that all of these documents are up to date and complete in order 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 contacts for this inspection will be Mr. Jared Shaver of your training organization, and Ms. Yolanda Good of your regulatory affairs 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 the lead inspector Nicholas Hernandez, at (817) 200-1118 (nicholas.hernandez@nrc.gov).

PAPERWORK REDUCTION ACT STATEMENT

This letter contains mandatory information collections that are subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). The Office of Management and Budget (OMB) approved these information collections (approval number 3150-0011). Send comments regarding this information collection to the Information Services Branch, Office of the Chief Information Officer, Mail Stop: T6 A10M, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by e-mail to Infocollects.Resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0011) Office of Management and Budget, Washington, DC 20503.

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Sincerely,



Signed by Gepford, Heather
on 07/18/22

Heather J Gepford, Chief
Operations Branch
Division of Reactor Safety

Docket Nos. 05000528, 05000529, and
05000530
License Nos. NPF-41, NPF-51, and NPF-74

Enclosure:
Biennial Requalification Inspection
Request for Information

**Initial Request for Information
Biennial Requalification Inspection
Palo Verde Nuclear Generating Station**

Inspection Report: 0500028/2020004, 05000529/2020004, 0500030/2020004

Inspection Dates: September 26, 2022-September 30, 2022

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

Lead Inspector: Nicholas Hernandez, Operations Engineer

A. The following information is requested in order 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 via NRC's secure file sharing application, Box, or in an electronic format on CD/DVD in order to arrive at the Region IV office no later than August 29, 2022.

- CD/DVD to: Nicholas Hernandez
12311 116th Ave NW
Gig Harbor, WA 98329

General Requests:

- List of licensed operators (SRO & RO) by crew (operating & staff)
- Training and Operations Department organization charts (with qualified LOR evaluators identified)
- Procedures that identify process for revising and maintaining 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 BRQ
- Audits and/or self-assessment reports addressing the licensed operator requalification training program
- Last 2 years of simulator review committee (or equivalent) meeting minutes
- Last 2 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 inspection team arrival onsite.
- All written examinations that have been approved for administration up to and including the week before the inspection team is 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 (JPMs & scenarios) to be given the week of September 26, 2022
- The operating tests (JPMs & scenarios) (password protected and provide separately via telephone at later date) to be given the week of September 26, 2022
- Current requalification cycle operating tests (SRO & RO) and results up to the week prior to the inspection team 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 as a means to prevent excessive overlap on the written examinations and also meet the intent of sampling all required topics on a periodic basis.

- Submit any tracking tools that you use as a means to prevent excessive overlap on the operating tests and also meet the intent of sampling all required malfunctions (including major events, instrument/component malfunctions, TS 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 between September 28, 2020, and September 26, 2022
- Primary parameters tested in order 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 2 years
- A list of simulator modification packages completed in the last two year window

B. The following information is requested in order to support the onsite inspection activities. Requested materials should be available to the inspection team, either electronically or hardcopy, upon site arrival on September 26, 2022.

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 team leaves 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 September 28, 2020, and September 26, 2022. 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 FSAR vs Design differences in the simulator (any documentation on this)
- Summary list of modifications from September 28, 2020, and September 26, 2022
- Plant modifications (both hardware and software) completed on the simulator by due date from September 28, 2020, and September 26, 2022
- Simulator differences Lesson plan used in training (current to September 26, 2022)
- 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 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. Palo Verde Nuclear Generating Station 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 in order 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.	%

PALO VERDE NUCLEAR GENERATING STATION UNITS 1, 2, AND 3 – NOTIFICATION OF INSPECTION (NRC INSPECTION REPORT 05000528/2020004, 05000529/2020004, 05000530/2020004 AND REQUEST FOR INFORMATION – July 5, 2022

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