



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

November 14, 2016

Robert S. Bement  
Executive Vice President Nuclear/  
Chief Nuclear Officer  
Mail Station 7602  
Arizona Public Service Company  
P. O. Box 52034  
Phoenix, AZ 85072-2034

SUBJECT: PALO VERDE NUCLEAR GENERATING STATION, UNITS 1, 2, AND 3 –  
NOTIFICATION OF INSPECTION (NRC INSPECTION  
REPORTS 05000528/2017001, 05000529/2017001, AND 05000530/2017001)  
AND REQUEST FOR INFORMATION

Dear Mr. Bement:

From December 12 through 16, 2016, 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 on-site 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 on-site 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. Joe Allison of your licensing 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 Chris Steely at (817) 200-1432 ([Chris.Steely@nrc.gov](mailto:Chris.Steely@nrc.gov)), Brian Larson at (817) 200-1172 ([Brian.Larson@nrc.gov](mailto:Brian.Larson@nrc.gov)), or Mike Bloodgood at (817) 200-1544 ([Michael.Bloodgood@nrc.gov](mailto:Michael.Bloodgood@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.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice and Procedure," 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 Nos. 50-528, 50-529, and 50-530  
License Nos. NPF-41, NPF-51, and NPF-74

Enclosure:  
Biennial Requalification Program Inspection  
Document Request

cc: Electronic Distribution

Distribution:  
See next page

R. Bement

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See next page

DOCUMENT NAME: PV2017001 BRQ RFI-LTR-CDS.DOCX  
ADAMS ACCESSION NUMBER: ML16320A152

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OFFICE	OE:OB	C:OB			
NAME	CSteely	VGaddy			
SIGNATURE	<i>/RA/</i>	<i>/RA/</i>			
DATE	11/14/16	11/14/16			

OFFICIAL RECORD COPY

Letter to Robert S. Bement from Vincent G. Gaddy, dated November 14, 2016

SUBJECT: PALO VERDE NUCLEAR GENERATING STATION, UNITS 1, 2, AND 3 –  
NOTIFICATION OF INSPECTION (NRC INSPECTION  
REPORTS 05000528/2017001, 05000529/2017001, AND 05000530/2017001)  
AND REQUEST FOR INFORMATION

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## BIENNIAL REQUALIFICATION INSPECTION DOCUMENT REQUEST

TO: Joe Allison  
Section Leader, Simulator Support  
Palo Verde Nuclear Generating Station  
623-393-6335

FROM: Chris Steely  
Operations Engineer, NRC RIV  
817-200-1432

SUBJECT: Information Request to Support December 12 to 16, 2016, Licensed Operator  
Requalification Program Inspection (IP 71111.11B)

**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., 2.02, 2.04, etc.). Requested materials should be sent either electronically or hardcopy in order to arrive at the Region IV office no later than June 17, 2016.**

- Electronically: Via IMS Certrec, or email (to [Chris.Steely@nrc.gov](mailto:Chris.Steely@nrc.gov), [Brian.Larson@nrc.gov](mailto:Brian.Larson@nrc.gov), or [Michael.Bloodgood@nrc.gov](mailto:Michael.Bloodgood@nrc.gov))
- Hardcopy to: U.S. Nuclear Regulatory Commission, Region IV  
1600 E. Lamar Blvd  
Arlington, TX 76011  
ATTN: Chris Steely

### **General Requests:**

- List of licensed operators (SRO and RO) by crew (operating and 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 two years of simulator review committee (or equivalent) meeting minutes
- Last two years of CRC (or equivalent) meeting minutes.

### 02.03: Biennial Requalification Written Examination Quality

- The current and approved biennial written examination schedule.
- The current requalification cycle written examination results for both SRO and RO that have already been administered up to the week prior to the inspection team arrival on-site.

Enclosure

- **All** written examinations that have been approved for administration up to and including the week before the inspection team is on-site. This will need to have adequate password protection if e-mailed or double envelope protection if mailed via regular mail per NUREG-1021.
- The current requalification cycle examination methodology (sample plan).

02.04: Annual Requalification Operating Test Quality

- The schedule for the operating tests (JPMs and scenarios) to be given the week of December 12, 2016 (week team is on-site).
- The operating tests (JPMs and scenarios) (password protected and provide separately via telephone at later date) to be given the week of December 12, 2016 (week team is on-site).
- Current requalification cycle operating tests (SRO and RO) and results up to the week prior to the inspection team arrival on-site.
- **All** of the previous year's NRC required annual operating tests.
- Current requalification cycle operating test methodology (sample plan).
- All portions of the UFSAR that identify operator response times for time critical operator actions.

02.05: Licensee Admin of Requalification Exams

- 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.

02.06: 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 examination cycle tests and prior year examinations.
- List of all condition reports since the last biennial requalification inspection related to examination security and overlap.

02.07: Licensee Remedial Training Program

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

02.08: Conformance with 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

02.09: Simulator Performance

- For the following cases, send the most recent transient test packages, which may be electronic or in paper single test packages and shall be complete with 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 3.5 Standard requirements. Based on the input that the licensee implements simulator testing standards per ANSI/ANS-3.5-2009, provide this information for the following Transient and Steady State tests:
  - Transient test 3, Simultaneous closure of all main steam isolation valves.
  - Transient test 5, Trip of any single reactor coolant pump.
  - Transient test 7, Maximum power rate ramp from 100 percent to 75 percent and back
  - Steady State tests for full power test.
- All simulator management and configuration procedures if not already provided for Section 02.05 above.
- Simulator discrepancy report **summary** list for all open DRs. For closed DRs, **summary** list for those items closed between December 2014 and December 2016.
- Malfunction Tests for loss of condenser vacuum and loss of normal feedwater normal feedwater system failure. If these are included in an SBT package then the review of that package would be acceptable.
- Primary parameters tested in order to verify core physics parameters, specifically Critical Boron Concentration – All rods withdrawn and integral rod worth (IRW). 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 just not completed in the last two years.
- A list of simulator modification packages completed in the last two year window.

02.10: Problem Identification and Resolution

- A summary report of all condition reports related to operator actions/errors in the control room.
- Any revised requalification training that was based on licensed operator performance issues.

**B. The following information is requested in order to support the on-site inspection activities. Requested materials should be available to the inspection team, either electronically or hardcopy, upon site arrival on December 12, 2016.**

02.02: Examination Results / 02.03 and 02.04: Written Examination and Op Test Quality

- All operating tests (JPMs and scenarios) to be given in all subsequent weeks after on-site week.
- All results up to the day the team leaves the site.

02.08: 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.

02.09: Simulator Performance

- Simulator discrepancies (DRs) from December 2014 and December 2016. This should include all open DRs and DRs that have been closed, 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 December 2014 and December 2016.
  - Plant modifications (both hardware and software) completed on the simulator by due date from December 2014 and December 2016.
- Simulator Differences Lesson Plan used in training (current to December 12, 2016).
- 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 MTC, IRW). 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 test, 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.

02.10: Problem Identification and Resolution

- All condition reports related to operator actions/errors in the control room.



- C. Palo Verde Nuclear Generating Station is required to send the final results summary 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.**