



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

June 4, 2018

Mr. 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 –
NRC EXAMINATION REPORT 05000528/2018301; 05000529/2018301;
05000530/2018301

Dear Mr. Bement:

On April 20, 2018, the U.S. Nuclear Regulatory Commission (NRC) completed an initial operator license examination at Palo Verde Nuclear Generating Station, Units 1, 2, and 3. The enclosed report documents the examination results and licensing decisions. The preliminary examination results were discussed on April 20, 2018, with yourself and other members of your staff. A telephonic exit meeting was conducted on May 21, 2018, with Mr. J. Allison, Simulator Support Section Leader, who was provided the NRC licensing decisions.

The examination included the evaluation of nine applicants for reactor operator licenses, eight applicants for instant senior reactor operator licenses, and seven applicants for upgrade senior reactor operator licenses. The license examiners determined that all of the applicants for reactor operator licenses, seven of the applicants for instant senior reactor operator licenses, and six of the applicants for upgrade senior reactor operator licenses satisfied the requirements of Title 10 of the *Code of Federal Regulations* (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.

In accordance with 10 CFR 2.390 of the NRC's "Agency 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

Agencywide Documents Access and Management 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:
Examination Report 05000528/2018301;
05000529/2018301; 05000530/2018301
w/Attachment: Supplemental Information

cc w/encl: Electronic Distribution

PALO VERDE NUCLEAR GENERATING STATION, UNITS 1, 2, AND 3 – NRC EXAMINATION REPORT 05000528/2018301; 05000529/2018301; 05000530/2018301 DATED JUNE 4, 2018

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U.S. NUCLEAR REGULATORY COMMISSION

REGION IV

Docket: 05000528; 05000529; 05000530

License: NPF-41; NPF-51; NPF-74

Report: 05000528/2018301; 05000529/2018301; 05000530/2018301

Licensee: Arizona Public Service Company

Facility: Palo Verde Nuclear Generating Station

Location: Tonopah, Arizona

Dates: April 13 through May 21, 2018

Inspectors: C. Osterholtz, Chief Examiner, Senior Operations Engineer
G. Callaway, Senior Reactor Technology Instructor
J. Drake, Senior Reactor Inspector
T. Farina, Senior Operations Engineer
M. Hayes, Operations Engineer
J. Kellum, Senior Reactor Engineer
J. Kirkland, Senior Operations Engineer
B. Larson, Senior Operations Engineer

Approved By: Vincent G. Gaddy, Chief
Operations Branch
Division of Reactor Safety

Enclosure

SUMMARY

Examination Report 05000528/2018301; 05000529/2018301; 05000530/2018301; 04/13/2018 to 05/21/2018; Palo Verde Nuclear Generating Station, Units 1, 2, and 3; Initial Operator Licensing Examination Report.

NRC examiners evaluated the competency of nine applicants for reactor operator licenses, eight applicants for instant senior reactor operator licenses, and seven applicants for upgrade senior reactor operator licenses at Palo Verde Nuclear Generating Station, Units 1, 2, and 3.

The licensee developed the examinations using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 11. The written examination was administered by the licensee on April 13, 2018. NRC examiners administered the operating tests on April 16 through April 20, 2018.

The examiners determined that all of the applicants for reactor operator licenses, seven of the applicants for instant senior reactor operator licenses, and six of the applicants for upgrade senior reactor operator licenses satisfied the requirements of 10 CFR Part 55, and the appropriate licenses have been issued.

A. NRC-Identified and Self-Revealed Findings

None.

B. Licensee-Identified Violations

None.

REPORT DETAILS

4. OTHER ACTIVITIES (OA)

4OA5 Other Activities (Initial Operator License Examination)

.1 License Applications

a. Scope

NRC examiners reviewed all license applications submitted to ensure each applicant satisfied relevant license eligibility requirements. 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 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

NRC examiners reviewed integrated examination outlines and draft examinations submitted by the licensee against the requirements of NUREG-1021. The NRC examination team conducted an onsite validation of the operating tests.

b. Findings

NRC examiners provided outline, proposed examination, and post-validation comments to the licensee. The licensee satisfactorily completed comment resolution prior to examination administration.

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, 2018, the licensee proctored the administration of the written examinations to all 24 applicants. The licensee staff graded the written examinations, analyzed the results, and presented their analysis to the NRC on April 27, 2018.

The NRC examination team administered the various portions of the operating tests to all applicants on April 16 through April 20, 2018.

b. Findings

No findings were identified.

All applicants passed the written examination. All the reactor operator applicants, seven of the instant senior reactor operator applicants, and six of the upgrade senior reactor operator applicants passed the operating tests. The final written examinations, operating tests, 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 one generic weakness associated with applicant performance on the dynamic scenario section of the operating tests:

- The ability of senior reactor operator applicants to identify applicable technical specifications associated with a failure of the B train motor driven auxiliary feedwater pump. This deficiency has been entered into the licensee's corrective action program as Condition Report PCR-40AL-9ES2B.

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 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.

40A6 Meetings, Including Exit

Exit Meeting

The chief examiner presented the preliminary examination results to yourself and other members of your staff on April 20, 2018. A telephonic exit was conducted on May 21, 2018, between Mr. C. Osterholtz, Chief Examiner, and Mr. J. Allison, Simulator Support Section Leader.

The licensee did not identify any information or materials used during the examination as proprietary.

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

R. Bement, EVP, Chief Nuclear Officer
J. Allison, Section Leader, Simulator Support
P. Bury, Director, Nuclear Training
J. Cadogan, SVP, Site Operations
S. Franquero, Sect Leader, Ops Training
K. Gil, Dept Leader, Long Range Planning
Z. Goldwasser, Dept Leader, Ops Training
M. Harkins, Ops Training Instructor
T. Horton, Director, Operations
C. Kharrl, VP, Site Operations/Gen Plant Mgr
M. Laca, SVP, Regulatory and Oversight
D. Lowdermilk, Nuclear Ops Coordinator, Licensing
D. Oliver, Sect Leader, Ops Training
D. Radosevic, Ops Training Instructor
J. Rodgers, Ops Training Instructor
J. Shaver, Sect Leader, Ops Training
C. Shields, Mgr, Emergency Preparedness
S. Zerkel, Ops Training Instructor

NRC Personnel

C. Peabody, Senior Resident Inspector

ADAMS DOCUMENTS REFERENCED

Accession No. ML18141A859 - FINAL WRITTEN EXAMS
Accession No. ML18141A857 - FINAL OPERATING TEST
Accession No. ML18141A860 - POST EXAM ANALYSIS