

December 12, 2002

Mr. Harold W. Keiser
Chief Nuclear Office & President
PSEG Nuclear LLC - N09
P.O. Box 236
Hancocks Bridge, NJ 08038

SUBJECT: SALEM NUCLEAR GENERATING STATION, UNITS 1 AND 2 - OPERATOR
AND SENIOR REACTOR OPERATOR INITIAL EXAMINATION REPORT NO.
50-272/02-301 & 50-311/02-301

Dear Mr. Keiser:

This report transmits the results of the Reactor operator (RO) and Senior reactor operator (SRO) licensing examination conducted by the NRC during the period of November 4 through 13, 2002. This examination addressed areas important to public health and safety and was developed and administered using the guidelines of the "Examination Standards for Power Reactors" (NUREG-1021, Revision 8, Supplement 1).

Based on the results of the examination, all five Reactor Operator and seven of the eight Senior Reactor Operator applicants passed all portions of the examination. One Senior Reactor Operator applicant failed the written examination. The thirteen applicants included five ROs, four instant SROs and four upgrade SROs. Mr. Blamey discussed performance insights observed during the examination with Mr. D. Jackson on November 8, 2002. On December 11, 2002, final examination results, including individual license numbers, were given during a telephone call between Mr. A. Blamey and Mr. J. Reid.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," 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). These records include the final examination and are available in ADAMS ({RO and SRO} Written - Accession Number ML023300061; {RO and SRO} Operating Section A - Accession Number ML023300148; {RO and SRO} Operating Section B - Accession Number ML023300196; and {RO and SRO} Operating Section C - Accession Number ML023300223). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/ADAMS.html> (the Public Electronic Reading Room).

Mr. Harold W. Keiser

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Should you have any questions regarding this examination, please contact me at (610) 337-5183, or by E-mail at RJC@NRC.GOV.

Sincerely,

/RA/

Richard J. Conte, Chief
Operational Safety Branch
Division of Reactor Safety

Docket Nos. 50-272/311
License Nos. DPR-70, DPR-75

Enclosure: Initial Examination Report No. 50-272/02-301, 50-311/02-301

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U. S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No(s): 50-272, 50-311

License No: DPR-70, DPR-75

Report No: 50-272/02-301
50-311/02-301

Licensee: PSEG Nuclear, LLC

Facility: Salem Units 1 & 2

Dates: November 13, 2002 (Written Examination Administration)
November 4 - 8, 2002 (Operating Test Administration)
November 22, 2002 (Examination Grading)

Examiners: A. Blamey, Senior Operations Engineer (Chief Examiner)
S. Barr, Operations Engineer
J. Laughlin, Operations Engineer
T. Fish, Operations Engineer

Approved by: Richard J. Conte, Chief
Operational Safety Branch
Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000272/02-301, 05000311/02-301; November 4 - 8, 2002; Salem Units 1 & 2; Initial Operator Licensing Examination. Twelve of thirteen applicants passed the examination (5 reactor operators, 4 SRO instants, and 3 SRO upgrades passed, and 1 SRO upgrade failed).

The written examinations were administered by the facility and the operating tests were administered by four NRC region-based examiners. There were no inspection findings of significance associated with the examinations.

A. Inspector Identified Findings

No findings of significance were identified.

B. License Identified Findings

No findings of significance were identified.

Report Details

1. REACTOR SAFETY

Mitigating Systems - Reactor Operator (RO) and Senior Reactor Operator (SRO) Initial License Examination

a. Scope of Review

The Salem training and operations personnel developed the written and operating initial examination and together with the NRC exam team verified or ensured, as applicable, the following:

- The examination was prepared and developed in accordance with the guidelines of Revision 8, Supplement 1 of NUREG-1021, "Operator Licensing Examination Standards for Power Reactors." A review was conducted both in the Region I office and at the Salem plant and training facility. Final resolution of comments and incorporation of test revisions were conducted during and following the onsite preparation week.
- Simulation facility operation was proper.
- A test item analysis was completed on the written examination for feedback into the systems approach to training program.
- Examination security requirements were met.

The NRC examiners administered the operating portion of the examination to all applicants from November 4 - November 8, 2002. The written examination was administered by the Salem training staff on November 13, 2002.

b. Findings

Grading and Results

There were a total of thirteen applicants (5 reactor operators, 4 SRO instants, and 4 SRO upgrade) who took the initial licensing examination. Twelve of the thirteen applicants passed all portions of the examination.

There was one operating examination comment that was submitted during the exam by PSEG Nuclear and is listed in attachment 2. The NRC's resolution of this comment is addressed in Attachment 3.

Examination Administration and Performance

A generic applicant weakness was identified during the NRC administration of the Operating Test. Specifically, during testing of job performance measure (JPM) RO A.2, "Clear and tag a motor operated valve (MOV) using Manual Tagging," four of five reactor operator applicants missed several administrative checks and verifications listed in Salem procedure SH.OP-AP.ZZ-0015. Analysis of this weakness identified that the

applicants did not have specific training on manual tagging before the exam and in some cases, the procedure was not clear on tagging requirements. PSEG Nuclear initiated Notifications 20121687 and 20124236 to further evaluate and correct the identified weakness.

4. OTHER ACTIVITIES (OA)

4OA6 Exit Meeting Summary

On December 11, 2002, the NRC provided conclusions and examination results to Mr. J. Reid, Nuclear Training Manager for Salem via telephone. License numbers for nine of the twelve applicants that passed all portions of the initial licensing examination were also provided during this time. The license number for the three remaining applicants that passed the initial licensing examination was withheld pending completion of their 520 hours as an extra person on-shift in training for the SRO position. Mr. J. Reid was informed that when the NRC is notified, in writing, that this on-shift training requirement has been completed by these three individuals, their license will be issued. One SROU applicant passed all sections of the operating portion but failed the written portion of the initial licensing examination and therefore is denied a license at this time.

The NRC expressed appreciation for the cooperation and assistance that was provided during the preparation and administration of the examination by the licensee's training staff.

KEY POINTS OF CONTACT

LICENSEE

J. Reid	Manager, Operator Training
A. Faulkner	NRC Exam Development Supervisor
F. Kaminski	Exam Developer, Operator Training

NRC

A. Blamey	Senior Operations Engineer
T. Fish	Senior Operations Engineer
S. Barr	Operations Engineer
J. Laughlin	Operations Engineer

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

<u>ITEM NUMBER</u>	<u>TYPE</u>	<u>DESCRIPTION</u>
NONE		

ATTACHMENT 2**LICENSEE COMMENTS**SRO Administrative JPM A.1 Question 1:

Both units are at 100% power when 1R1B-1, Control Room Air Intake Radiation Monitor, fails high. The following control area ventilation (CAV) alignment is noted:

- 11 and 12 EACS Fans are operating
- The outside Air Intake Dampers on Unit 1 and Unit 2 are closed.

What Technical specification Action Statement(s) (TSAS) must be entered?

Answer:

Enter the TSAS for the failed radiation monitor on each unit and the TSAS for the failed damper/interlock on Unit 2. The Unit 2 Outside Intake Damper should not close on failure of 1R1B-1.

- Unit 1 RMS - 3.3.3.1 Action b, Instrument 3, Action 24
- Unit 2 RMS - 3.3.3.1 Action b, Instrument 3, Action 27
- Unit 2 CAV - 3.7.6.b, Action e

PSEG Nuclear Comments:

The answer key (listed above) for the Control Room Air Intake Radiation Monitoring TSAS only addressed the failure of the 1R1B-1 radiation monitoring channel and listed Technical Specifications for the failure of a single Control Room Air Intake Radiation Monitoring channel. However, with the intake dampers closed on both Units, S2-OP-SO.CAV-0001, "Control Area Ventilation Operation," Limitations and Actions states that all Control Room Air Intake Radiation Monitor channels are inoperable because there is no process airflow across the monitors. This condition requires entry into Unit 1 RMS - 3.3.3.1 Action b, Instrument 3, Action 25, not Action 24 and Unit 2 RMS - 3.3.3.1 Action b, Instrument 3, Action 28, not Action 27. Action 25 and 28 addresses failures of all Control Room Air Intake Radiation Monitoring channels. Therefore, the correct answer to this question is:

- Unit 1 RMS - 3.3.3.1 Action b, Instrument 3, Action 25
- Unit 2 RMS - 3.3.3.1 Action b, Instrument 3, Action 28
- Unit 2 CAV - 3.7.6.b, Action e

ATTACHMENT 3

NRC RESOLUTION OF LICENSEE COMMENTS

Question: SRO Administrative JPM A.1

Comment: The question asked what Technical Specification Action Statements needed to be entered for a failure of 1R1B-1, Control Room Air Intake Radiation Monitor channel which resulted in closing the outside Air Intake Dampers on Unit 1 and Unit 2. Since the inlet dampers on both units were closed there was no process flow across the Control Room Air Intake Radiation Monitors and all the Control Room Air Intake Radiation Monitor channels were inoperable. Therefore, the correct answer should have been to enter Unit 1 Technical Specification (TS) 3.3.3.1 Action b, Instrument 3, Action 25, and Unit 2 TS 3.3.3.1 Action b, Instrument 3, Action 28.

NRC Resolution: Recommendation accepted. Since the outside air intake dampers were closed there was no process flow across the Control Room Air Intake Radiation Monitors and therefore all channels of the Control Room Air Intake Radiation Monitors were inoperable. Unit 1 Technical Specification (TS) 3.3.3.1 Action b, Instrument 3, Action 25, and Unit 2 TS 3.3.3.1 Action b, Instrument 3, Action 28 will be used as the correct answer to this JPM question.