



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I**
2100 RENAISSANCE BOULEVARD, SUITE 100
KING OF PRUSSIA, PENNSYLVANIA 19406-2713

August 26, 2013

Mr. Timothy S. Rausch
Senior Vice President
and Chief Nuclear Officer
PPL Susquehanna, LLC
769 Salem Blvd., NUCSB3
Berwick, PA 18603-0467

Dear Mr. Rausch:

**SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 and 2
NRC INITIAL OPERATOR LICENSING EXAMINATION REPORT
05000387/2013301; 05000388/2013301**

On July 17, 2013, the U.S. Nuclear Regulatory Commission (NRC) completed an examination at Susquehanna Steam Electric Station, Units 1 and 2. The enclosed report documents the examination findings, which were discussed on August 15, 2013, with Messrs. Tony Jardine, Corey Goff, and other members of your staff.

The examination included the evaluations of two applicants for reactor operator licenses, six applicants for instant senior operator licenses, and one applicant for an upgrade senior operator license. The written and operating examinations were developed using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 9, Supplement 1. The license examiners determined that eight of the nine applicants satisfied the requirements of 10 CFR Part 55, and the appropriate licenses were issued on August 15, 2013.

No findings were identified during this examination.

One applicant for an instant senior reactor operator license failed the written portion of the examination, and was denied a license. Two applicants for an SRO license passed the examination, but their licenses are being held based on their written examination grades. Licenses for applicants with written examinations with passing grades of 82 percent or less overall, or 74 percent or less for the SRO portion, are normally held for review until those applicants who failed the examinations have an opportunity to appeal their license denials.

T. S. Rausch

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In accordance with 10 CFR 2.390 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 Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams/web-based.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Donald E. Jackson, Chief
Operations Branch
Division of Reactor Safety

Enclosure:
NRC Initial Operator Licensing Examination Report
05000387&388/2013301
w/Attachment: Supplemental Information

cc w/encl: Distribution via ListServ

T. S. Rausch

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ADAMS PKG: ML12347A266 ADAMS ACCESSION NUMBER: ML13238A315

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**U.S. NUCLEAR REGULATORY COMMISSION
REGION I**

Dockets: 50-387, 50-388

Licenses: NPF-14, NPF-22

Report : 05000387/2013301; 05000388/2013301

Licensee: PPL Susquehanna, LLC

Facility: Susquehanna Steam Electric Station, Units 1 and 2

Location: 769 Salem Blvd., NUCSB3
Berwick, PA 18603-0467

Dates: 7/8/2013 - 7/12/2013 (Operating Test Administration)
7/17/2013 (Written Examination Administration)
7/26/2013 (Licensee Submitted Post Exam Package)
8/1/2013 (NRC Examination Grading)
8/15/2013 (Licenses Issued)

Examiners: Joseph M. D'Antonio, Senior Operations Engineer, Chief Examiner
Peter Presby, Senior Operations Engineer
Tom Dunn, Operations Engineer
Manan Patel, Operations Engineer

Approved By: Donald E. Jackson, Chief
Operations Branch
Division of Reactor Safety

SUMMARY OF FINDINGS

ER 05000387/2013301; 05000388/2013301; 7/8/2013 - 8/15/2013; Susquehanna Steam Electric Station, Units 1 and 2; Initial Operator Licensing Examination Report.

NRC examiners evaluated the competency of two applicants for reactor operator licenses, six applicants for instant senior operator licenses and one applicant for upgrade senior operator licenses at Susquehanna Steam Electric Station, Units 1 and 2. The facility licensee developed the examinations using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 9, Supplement 1. The written examination was administered by the facility on July 17, 2013. NRC examiner administered the operating tests on July 8 -12, 2013. The license examiners determined that eight of the nine applicants satisfied the requirements of 10 CFR Part 55, and the appropriate licenses have been issued.

A. NRC-Identified and Self-Revealing Findings

No findings were identified.

B. Licensee-Identified Violations

None.

REPORT DETAILS

4. OTHER ACTIVITIES (OA)

4OA5 Other Activities (Initial and Retake Operator License Examination)

.1 License Applications

a. Scope

The NRC examiners reviewed all nine license applications submitted by the licensee to ensure the applications reflected that each applicant satisfied relevant license eligibility requirements. The applications were submitted on NRC Form 398, "Personal Qualification Statement," and NRC Form 396, "Certification of Medical Examination by Facility Licensee." The examiners also audited all 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 Operator Knowledge and Performance

a. Examination Scope

On July 17, 2013, the licensee proctored the administration of the written examinations to all nine applicants. The licensee staff graded the written examinations, analyzed the results, and presented their analysis to the NRC on July 26, 2013.

The NRC examination team administered the various portions of the operating examination to all nine applicants from July 8 - July 12, 2013. The two applicants for reactor operator licenses participated in two dynamic simulator scenarios, in a control room and facilities walkthrough test consisting of eleven system tasks, and an administrative test consisting of four administrative tasks. The six applicants seeking an instant senior operator license participated in three dynamic simulator scenarios, a control room and facilities walkthrough test consisting of ten system tasks, and an administrative test consisting of five administrative tasks. The one applicant for an upgrade senior operator license participated in two dynamic simulator scenarios, a control room and facilities walkthrough test consisting of five system tasks, and an administrative test consisting of five administrative tasks.

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b. Findings

All nine of the applicants passed all parts of the operating test. One senior reactor operator applicant failed the written examination. For the written examinations, the reactor operator applicants' average score was 84 percent and ranged from 80 to 88 percent, the senior operator applicants' average score was 85.56 percent and ranged from 78.78 to 94.94 percent. The overall written examination average was 85.21 percent. The text of the examination questions, the licensee's examination analysis, and the licensee's post-examination comments may be accessed in the ADAMS system under the accession numbers noted in Attachment 1.

The NRC examiners completed the final grading of the written examination on August 1, 2013, and conducted a review of each missed question to determine the accuracy and validity of the examination questions. The text of the examination questions, the licensee's examination analysis, and the licensee's post-examination comments may be accessed in the ADAMS system under the accession numbers noted in the attachment.

Chapter ES-403 and Form ES-403-1 of NUREG 1021 require the licensee to analyze the validity of any written examination questions that were missed by half or more of the applicants. The licensee conducted this performance analysis for all questions that met these criteria and submitted the analysis to the chief examiner.

The licensee submitted post-examination comments for three questions on July 26, 2013. The NRC reviewed the facility's post-exam comment submittal package and evaluated facility recommendations. The key answer was changed on Question 91 from "D" to "C"; the NRC did not accept both "D" and "C" as correct. Question 87 was deleted from both the RO and SRO exams. Two correct answers "B" and "C" were accepted for question 21. The text of the examination questions, the licensee's examination analysis, and the licensee's post-examination comments with the NRC resolutions may be accessed in the ADAMS system under the accession numbers noted in the Attachment 1.

Note: In accordance with current NRC policy the release of this written examination will be delayed for two years.

.3 Initial Licensing Examination Development

a. Examination Scope

The facility licensee developed the examinations in accordance with NUREG-1021, Revision 9, Supplement 1. All licensee facility training and operations staff involved in examination preparation and validation were listed on a security agreement. The facility licensee submitted both the written and operating examination outlines on February 16, 2013. The chief examiner reviewed the outlines against the requirements of NUREG-1021, and provided comments to the licensee. The facility licensee submitted the draft examination package on April 6, 2013. The chief examiner reviewed the draft

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examination package against the requirements of NUREG-1021, and provided comments to the licensee. The NRC conducted an onsite validation of the operating examinations and provided further comments during the week of May 28, 2013. The licensee satisfactorily completed comment resolution prior to the administration of the examination.

b. Findings

The NRC approved the initial examination outline and advised the licensee to proceed with the operating examination development.

The examiners determined that the written and operating examinations initially submitted by the licensee were within the range of acceptability expected for a proposed examination.

No findings were identified.

.4 Simulation Facility Performance

a. Examination Scope

The examiners observed simulator performance with regard to plant fidelity during the examination validation and administration.

b. Findings

No findings were identified.

.5 Examination Security

a. Examination Scope

The examiners reviewed examination security for examination development and during both the onsite preparation week and examination administration week for compliance with NUREG-1021 requirements. Plans for simulator security and applicant control were reviewed and discussed with licensee personnel.

b. Findings

No findings were identified.

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4OA6 Meetings, Including Exit

The chief examiner presented the examination results to Mr. Tony Jardine, Manager, Nuclear Operations, and other members of the licensee's management staff on August 15, 2013. The licensee acknowledged the findings presented.

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

Enclosure

**ATTACHMENT
SUPPLEMENTAL INFORMATION
KEY POINTS OF CONTACT**

Licensee Personnel

Corey Goff, Manager, Nuclear Training
Dan Geraghty, Operations Training Manager
Robert Thompson, NRC Examination Developer

NRC Personnel

John Greives, Senior Resident Inspector
Joseph D'Antonio, Chief Examiner

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

NONE

Opened and Closed

NONE

Closed

NONE

Discussed

NONE

ADAMS DOCUMENTS REFERENCED

Accession No. ML13228A290	FINAL-Written Exam (Note: In accordance with current NRC policy, the release of this written examination in ADAMS to the public will be delayed for two years.)
Accession No. ML13228A293	FINAL-Operating Exam
Accession No. ML13228A279	FINAL-Post Exam Comments, Resolutions, and Technical References