



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

February 16, 2011

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

SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION - NRC EXAMINATION REPORT
05000387/2011301; 05000388/2011301

Dear Mr. Rausch:

On January 24, 2011, 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 February 9, 2011, with Mr. Thomas Iliadis, General Manager of Operations, and other members of your staff.

The examination included the evaluation of four applicants for reactor operator licenses, one applicant for instant senior operator license and three applicants for upgrade senior operator licenses. 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 seven of the eight applicants satisfied the requirements of 10 CFR Part 55, and the appropriate licenses were issued on February 9, 2011. In addition, one of the four applicants for reactor operator license passed his exams but his license is being held as explained in paragraph D.3.c of Examination Standard (ES) 501 in NUREG-1021 until the one upgrade senior reactor operator applicant who failed the examination has had an opportunity to appeal his license denial.

No findings were identified during this examination.

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 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,

A handwritten signature in black ink, appearing to read "Samuel L. Hansell, Jr.", written over a horizontal line.

Samuel L. Hansell, Jr., Chief
Operations Branch
Division of Reactor Safety

Docket Nos. 50-387; 50-388
License Nos. NPF-14, NPF-22

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Sincerely,
/RA/

Samuel L. Hansell, Jr., Chief
Operations Branch
Division of Reactor Safety

Docket Nos. 50-387; 50-388
License Nos. NPF-14, NPF-22

SUNSI Review Complete: JGC (Reviewer's Initials)

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OFFICE	RI/DRS/OB	RI/DRS/OB				
NAME	JCaruso/JGC	SHansell/SLH				
DATE	02/16/11	02/16/11				

OFFICIAL RECORD COPY

T. Rausch

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Enclosure: NRC Examination Report 05000387/2011301 and 05000388/2011301
w/Attachment: Supplemental Information

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EXAMINATION REPORT
U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Docket Nos: 50-387, 50-388

License Nos: NPF-14, NPF-22

Report Nos: 05000387/2011301 and 05000388/2011301

Licensee: PPL Susquehanna, LLC

Facility: Susquehanna Steam Electric Station, Units 1 and 2

Location: Berwick, PA

Dates: January 18-21, 2011 (Operating Test Administration)
January 24, 2011 (Written Examination Administration)
January 31, 2011 (Licensee Submitted Post Exam Package)
January 24 – February 8, 2011 (NRC Examination Grading)
February 9, 2011 (Licenses Issued)

Inspectors: John G. Caruso, Chief Examiner, Operations Branch
Brian Fuller, Operations Engineer
Tom Hedigan, Operations Engineer

Approved By: Samuel L. Hansell, Jr., Chief
Operations Branch
Division of Reactor Safety

Enclosure

SUMMARY OF FINDINGS

ER 05000387/2011301; 05000388/2011301; January 18 – February 9, 2011; Susquehanna Steam Electric Station, Units 1 and 2; Initial Operator Licensing Examination Report.

NRC examiners evaluated the competency of four applicants for reactor operator licenses, one applicant for instant senior operator license and three applicants 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 January 24, 2011. NRC examiners administered the operating tests on January 18 – January 21, 2011. The license examiners determined that seven of the eight applicants satisfied the requirements of 10 CFR Part 55, and the appropriate licenses have been issued. In addition, one of the four applicants for reactor operator license passed his exams but his license is being held as explained in paragraph D.3.c of Examination Standard (ES) 501 in NUREG-1021 until the one upgrade senior reactor operator applicant who failed the examination has had an opportunity to appeal his license denial.

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 Operator License Examination

.1 License Applications

a. Scope

The examiners reviewed all eight 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 five of the license applications in detail to confirm that they accurately reflected the subject applicants' qualifications. This audit focused on the applicants' 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 January 24, 2011, the licensee proctored the administration of the written examinations to all eight applicants. The licensee staff graded the written examinations, analyzed the results, and presented their analysis to the NRC on January 31, 2011.

The NRC examination team administered the various portions of the operating examination to all eight applicants on January 18-21, 2011. The four 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 one applicant seeking an instant senior operator license participated in two 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 three applicants for upgrade senior operator licenses 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.

b. Findings

Seven of the eight applicants passed all parts of the operating test. One upgrade senior operator applicant failed the senior operator portion of the written examination. For the written examinations, the reactor operator applicants' average score was 86.33 percent

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and ranged from 80.00 to 89.33 percent, the senior operator applicants' average score was 86.5 percent and ranged from 82.0 to 89.0 percent. The overall written examination average was 86.41 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 the attachment 1. In accordance with current NRC policy the release of this written examination will be delayed for two years.

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 twelve questions that met these criteria and submitted the analysis to the chief examiner. All twelve of these questions were determined to be technically satisfactory by the licensee and as a result there were no post examination comments submitted.

.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 October 27, 2010. The chief examiner reviewed the outlines against the requirements of NUREG-1021, Revision 9, Supplement 1, and provided comments to the licensee. The facility licensee submitted the draft operating test package on November 30, 2010 and the written examination package on December 2, 2010. The chief examiner reviewed the draft examination package against the requirements of NUREG-1021, Revision 9, Supplement 1, and provided comments to the licensee on the operating test on December 3, 2010 and on the written examination on December 13, 2010. The NRC conducted an onsite validation of the operating examinations and provided further comments during the week of December 13, 2010. The licensee satisfactorily completed comment resolution on January 10, 2011 for the operating test and on January 13, 2011 for the written 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.

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.4 Simulation Facility Performance

a. Examination Scope

The examiners observed simulator performance with regard to plant fidelity during the examination validation and administration. Two simulator performance issues that occurred during exam administration are documented in attachment 2.

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.

4OA6 Meetings, Including Exit

The chief examiner presented the examination results to Mr. Thomas Iliadis, General Manager of Operations, and other members of the licensee's management staff on February 9, 2011. The licensee acknowledged the findings presented.

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

ATTACHMENT: SUPPLEMENTAL INFORMATION

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ATTACHMENT

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

T. Iliadis, General Manager of Operations
M. Diltz, Operations Training Manager
D. Walsh, Assistant Operations Manager Assigned to Training
J. Weiss, Initial Licensed Operator Training Supervisor
M. Jacoppetti, Nuclear Training Instructor
P. Moran, Nuclear Training Instructor
R. Puddish, Nuclear Training Instructor
T. North, Examination Developer
C. Dodge, Simulator Support

NRC Personnel

P. Finney, Senior Resident Inspector
J. Greives, Resident Inspector

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened/Closed/Discussed

ADAMS DOCUMENTS REFERENCED

Accession No. ML110400267 – FINAL-Written Exam (Note: This document will not be released for two years.)
Accession No. ML110400275 – FINAL-Operating Exam

ES-501**Simulator Fidelity Report****Attachment 2**

Facility Licensee: Susquehanna Steam
 Electric Station, Units 1
 and 2

Facility Docket No.: 50-387 and 50-388

Operating Test Administered on: January 18-
 21, 2011

This form is to be used only to report observations. These observations do not constitute audit or inspection findings and, without further verification and review in accordance with IP 71111.11, are not indicative of noncompliance with 10 CFR 55.46. No licensee action is required in response to these observations.

While conducting the simulator portion of the operating tests, examiners observed the following items:

Item	Description
CR- 1345359	Simulator prematurely went to freeze during performance of an exam scenario.
CR- 1345367	Fuel Zone Level Response was erratic during performance of simulator JPM.