UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
2100 RENAISSANCE BLVD.
KING OF PRUSSIA, PA 19406-2713

January 17, 2017

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

SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2 – NRC INITIAL OPERATOR LICENSING EXAMINATION REPORT 05000387/2016301 AND 05000388/2016301

Dear Mr. Rausch:

On November 23, 2016, the U.S. Nuclear Regulatory Commission (NRC) completed an examination at the Susquehanna facility. The enclosed report documents the examination findings, which were discussed on January 5, 2017, with Mr. J. Goodbred, Training Manager.

The examination included the evaluation of four applicants for reactor operator licenses, and five applicants for instant senior operator licenses. The written and operating examinations were developed using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 10. 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 January 5, 2017.

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 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

Docket Nos. 50-387 and 50-388
License Nos. NPF-14 and NPF-22

cc w/encl: Distribution via ListServ

SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2 – NRC INITIAL OPERATOR LICENSING EXAMINATION REPORT 05000387/2016301 AND 05000388/2016301 dated January 17, 2017

Enclosure:
NRC Initial Operator Licensing Examination Report 05000387/2016/301 and 05000388/2016/301 w/Attachment: Supplemental Information

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EXAMINATION REPORT

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Docket:	50-387 and 50-388
License:	NPF-14 and NPF-22
Report :	05000387/2016301 and 05000388/2016301
Licensee:	Susquehanna Nuclear, LLC Talen Energy
Facility:	Susquehanna Steam Electric Station, Units 1 and 2
Location:	Berwick, PA 18603-0467
Dates:	November 14-18, 2016 (Operating Test Administration) November 23, 2016 (Written Examination Administration) November 23 – December 20, 2016 (NRC Examination Grading) December 2 and 12, 2016 (Licensee Submitted Post Exam Package) January 5, 2017 (Licenses Issued)
Examiners:	T. Fish, Chief Examiner, Operations Branch T. Hedigan, Operations Engineer N. Embert, Operations Engineer T. Dunn, Operations Engineer
Approved By:	Donald E. Jackson, Chief Operations Branch Division of Reactor Safety

SUMMARY

ER 05000387/2016301 and 05000388/2016301; November 14-18, 2016 and November 23, 2016; Susquehanna Steam Electric Station, Units 1 and 2; Initial Operator Licensing Examination Report.

The examination included the evaluation of four applicants for reactor operator licenses, and five applicants for instant senior operator licenses. The written and operating examinations were developed using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 10. 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 January 5, 2017.

REPORT DETAILS

4. OTHER ACTIVITIES (OA)

4OA5 Other Activities (Initial Operator License Examination)

.1 License Applications

a. Scope

The examiners reviewed all 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 four of the license applications in detail to confirm that they accurately reflected the subject applicant's qualifications. This audit focused on each 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 November 23, 2016, the licensee proctored the administration of the written examinations to all applicants. The licensee staff graded the written examinations, analyzed the results, and presented their analysis to the NRC on December 2, 2016.

The NRC examination team administered the various portions of the operating examination to all applicants November 14-18, 2016. The four applicants for reactor operator licenses participated in at least two dynamic simulator scenarios, in a control room and facilities walkthrough test consisting of 11 system tasks, and an administrative test consisting of four administrative tasks. The five applicants seeking an instant senior operator license participated in at least two dynamic simulator scenarios, a control room and facilities walkthrough test consisting of 10 system tasks, and an administrative test consisting of five administrative tasks.

b. Findings

All applicants passed all parts of the operating test. Eight of the nine applicants passed the written examination. One reactor operator applicant failed the written exam. For the written examinations, the reactor operator applicants' average score was 82.99 percent and ranged from 78.66 to 88.00 percent; the senior operator applicants' average score was 85.80 percent and ranged from 85.00 to 87.00 percent.

The text of the examination questions may be accessed in the ADAMS system under the accession numbers noted in Attachment 1. In accordance with current NRC policy, the release of this written examination in ADAMS to the public 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 and submitted the analysis to the chief examiner.

.3 Initial Licensing Examination Development

a. Examination Scope

The facility licensee developed the examinations in accordance with NUREG-1021, Revision 10. All facility licensee 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 August 19, 2016. 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 September 16, 2016. The chief examiner reviewed the draft 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 October 17, 2016. The licensee satisfactorily completed comment resolution on November 10, 2016.

b. Findings

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

4OA6 Meetings, Including Exit

The chief examiner presented the examination results to Mr. J. Goodbred, Training Manager, on January 5, 2017. The licensee acknowledged the findings presented.

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

Attachment:
Supplemental Information

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel
G. Schrad, Facility Exam Lead and Author
G. van den Berg, Facility Exam Author

ITEMS OPENED, CLOSED, AND DISCUSSED

None

ADAMS DOCUMENTS REFERENCED

Accession No. ML17013A455 - Written Exam
Accession No. ML17013A457 - Operating Exam

Note: In accordance with current NRC policy, the public release of the written examination and operating test in ADAMS will be delayed for two years from the date of this Examination Report.