

October 1, 2003

Mr. Bryce L. Shriver
Senior Vice President and
Chief Nuclear Officer
PPL Susquehanna, LLC
769 Salem Blvd., NUCSB3
Berwick, PA 18603-0467

SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION UNITS 1 & 2 STATION
OPERATOR AND SENIOR REACTOR OPERATOR INITIAL EXAMINATION
REPORT NO. 05000387/2003301 AND 05000388/2003301

Dear Mr. Shriver:

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 August 8-15, 2003. 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, Draft Revision 9).

Based on the results of the examination, five Senior Reactor Operators and three Reactor Operator applicants passed all portions of the examination. Two Senior Reactor Operators Upgrade applicants failed the written examination. Examination results indicated that generally the applicants were well prepared for the examination. On September 12, 2003, the NRC provided final examination results, including individual license numbers, during a telephone call between Mr. R. Conte and Mr. Robert Boesch and others of your staff. No findings of significance were identified.

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 ML032650565; RO and SRO Operating Section A - Accession Number ML032650571; RO and SRO Operating Section B - Accession Number ML032650579; and RO and SRO Operating Section C - Accession Number ML032650586, and Facility Post Examination Comments on the Written and Operating Exams - Accession No. ML032590862. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Mr. Bryce L. Shriver

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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. 50-387/50-388
License Nos. NPF-14/NPF-22

Enclosure: Initial Examination Report No. 05000387/2003301 and 05000388/2003301
w/attachments

cc w/encl:

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Mr. Bryce L. Shriver

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Distribution w/encl: **(VIA E-MAIL)**

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U. S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket Nos: 50-387, 50-388

License Nos: NPF-14, NPF-22

Report Nos: 05000387/2003301 and 05000388/2003301

Licensee: PPL, Susquehanna, LLC

Facility: Susquehanna Steam Electric Station Units 1 and 2

Dates: August 8, 2003 (Written Examination Administration)
August 11-15, 2003 (Operating Test Administration)
August 16 - September 9, 2003 (Examination Grading/Evaluation)

Examiners: J. Caruso, Senior Operations Engineer (Chief Examiner)
S. Barr, Operations Engineer
J. D'Antonio, Operations Engineer

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

Enclosure

SUMMARY OF FINDINGS

IR 05000387/2003-301 and 05000388/2003-301; August 8 - 15, 2003; Susquehanna Steam Electric Station Units 1 and 2; Initial Operator Licensing Examination; Eight of ten applicants passed the examination (3 ROs and 5 SRO instantants).

The written examinations were administered by the facility and the operating tests were administered by three NRC region-based examiners.

A. Inspector Identified Findings

No findings of significance were identified.

B. Licensee Identified Findings

None.

Report Details

1. REACTOR SAFETY

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

a. Scope of Review

The licensee's examination team developed the written and operating initial examinations and together with NRC personnel verified or ensured, as applicable, the following:

- The examination was prepared and developed in accordance with the guidelines of Draft Revision 9 of NUREG-1021, "Operator Licensing Examination Standards for Power Reactors." A review was conducted both in the Region I office and at the Susquehanna Unit 1 and 2 station 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 (see section 4OA5).

The NRC examiners administered the operating portion of the examination to all applicants from August 11- 15, 2003. Susquehanna Station training staff administered the written examination on August 8, 2003.

b. Findings

Grading and Results

Eight applicants (5 SROs and 3 ROs) passed all portions of the initial licensing examination. Two SRO upgrade applicants failed the written portion of the examination.

One written post-examination comment and a follow-up were submitted by the licensee for SRO question number 82, see Attachment 1 for the NRC's resolution.

Examination Preparation and Quality

The quality of the draft examinations was within acceptable range.

Examination Administration and Performance

NRC examiners noted one generic performance weakness exhibited by the applicants during examination administration regarding the performance of one control room JPM, Complete Monthly CREOASS Operability Surveillance. The applicants experienced difficulties observing 'CS EMER OA SUP FAN FAILED' alarm, and consulting the appropriate alarm response procedure that required placing the 'B' fan in Auto Lead.

4. OTHER ACTIVITIES

4OA5 Other (Inadvertent Potential Initial License Exam Security Compromise)

On the morning of August 14, 2003, during the administration of the NRC initial license exam, an individual informed the NRC exam team that on the previous day, he had inadvertently disclosed the contents of one exam item (i.e., a Job Performance Measure). This individual had previously validated the operating exam and had signed onto the NRC exam security agreement. At the time of the disclosure, the individual had incorrectly assumed that the NRC exam administration had already been completed. When the individual subsequently realized that the exam was still in progress, he immediately came forward and notified the NRC of his disclosure. At the time, this JPM had not yet been administered to the applicants. PPL management promptly conducted interviews to determine extent of condition and determined that the potential exam compromise was limited to the disclosure of only this one JPM item. PPL promptly submitted a new replacement JPM that was validated in advance of administration by both facility representatives and the NRC exam team.

The inadvertent disclosure of the JPM is a violation of 10 CFR 55.49 because, but if for detection, it would have affected the equitable and consistent administration of the examination. This finding was considered minor in that it did not have any actual safety consequences, the issue was not a precursor to a significant event, if left uncorrected it was not likely to become a more significant event, the issue did not relate to a performance indicator, and the issue was not directly associated with one of the cornerstones objectives. Although this issue constitutes a violation of minor significance that is not subject to enforcement action in accordance with Section IV of the Enforcement Policy, it is being documented because it is associated with an issue of agency wide concern (i.e., NRC exam security, NUREG-1021, Draft Revision 9, ES-501, E.3). PPL placed this issue in its corrective action program (condition report number 492171, dated August 18, 2003).

4OA6 Meetings, including Exit

The examination period was from August 8 -15, 2003 and an interim exit meeting was conducted on site on August 15, 2003. Grading and evaluation of post examination comments occurred from August 16 - September 9, 2003 with interim telephone calls in support of the process. On September 12, 2003, the NRC provided conclusions and examination results to Mr. R, Boesch, Operations Training Manager, via telephone.

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License numbers for eight of the ten applicants that passed all portions of the initial licensing examination were also provided during 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.

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Attachment 1

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

LICENSEE

R. Boesch, Operations Training Manager
J. Seek, Nuclear Operations Training Supervisor (initial)
R. Brooks, Facility Exam Contact
R. Halm, Facility Exam Contact

NRC

J. Caruso, Senior Operations Engineer (Chief Examiner)
S. Barr, Operations Engineer
J. D'Antonio, Operations Engineer

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

None

ATTACHMENT 2

NRC RESOLUTION OF LICENSEE COMMENTS

Licensee's Post Written Examination Comments Publically Available
in ADAMS Accession No. ML032590862

Question: SRO 82

The question presents a LOCA with RPV level slowly trending down with the following plant conditions: reactor pressure 50psig; Wide Range Level -146 inches; Fuel Zone level -93 inches; Upset Range 0 inches; Shutdown Range Level 0 inches; Narrow Range level 0 inches; +5.2psig; Drywell Temperature 200 degrees F. The question asks, "As the Unit Supervisor using ON-145-004, which of the following Reactor Level Instruments would you instruct the operators to use as water level lowers"? The Choices given are: A. Shutdown Range; B. Fuel Zone; C. Upset Range; D. Wide Range. Answer D. Wide Range was the designated correct answer to this question. Note: This was open reference question with ON-145-004, "RPV Water Level Anomaly", Revision 8 provided as a reference to the applicants.

Licensee Original Comment: The licensee's comment received on August 22, 2003 indicated the given value in the question for Wide Range Level -146 inches can be extended to -147 inches using ON-145-004, Attachment C (Attachment 2, page 2). This would leave only one inch of useable level indication as water level continues to drop. With the given values of Fuel Zone level -93 inches and reactor pressure 50 psig and using the 100 psig column of the graph Attachment D for a conservative level indication the Fuel Zone would be on scale at -93 inches and would extend down to -307 inches. This would leave 214 inches of useable level indication if level continued to drop. Based on this information, we consider the only correct answer to be "B. Fuel Zone"

NRC Initial Response: The Chief Examiner contacted the licensee via telecon on September 5, 2003 and discussed two major comments/ concerns regarding the licensee's initial comment. 1) Using the 100 psig column of the graph Attachment D did not appear to be a conservative approach, since correcting using the 0 psig column of the graph (Attachment D, page 25 of 25) would yield a more conservative corrected value of -110 inches which is a lower and more limiting level condition (i.e., closer to approaching Top of Active Fuel). Furthermore, by using Attachment D, interpolating for 50 psig would yield a -101.5 inches which is above the useable scale of the Fuel Zone instrument. The procedure is silent on whether the operator should interpolate to obtain corrected RPV water level when RPV pressure values fall between the 100 psig incremented columns provided on Attachment D. 2) The plant conditions of Wide Range Level -146 inches and Fuel Zone level -93 inches did not make sense with the RPV pressure at 50 psig since these values should be nearly the same and tracking as level decreases. Based on these observations, the exam team had concluded the question was flawed since the stem conditions were not realistic, and indicative of a malfunctioning instrument. Furthermore, the stated values given in the stem for Wide Range Level (-146 inches) and Fuel Zone level (-93 inches) do not indicate whether these values are actual readings or corrected, which further adds to the confusing nature of the question.

Licensee Follow-up Comment: On September 10, 2003, Region I received a follow-up comment (licensee letter dated September 9, 2003) to SRO question #82 indicating after further review that they wanted to retract their request to modify the answer key and recommend that the question be deleted since the stem of question poses conditions that are not realistic and under the conditions stated in the stem of the question, two distractors are not plausible.

NRC Resolution: Recommendation of licensee's follow-up comment accepted. The question is deleted since the stem conditions are not realistic, ambiguous and indicative of a malfunctioning instrument as explained in the paragraph above" NRC Initial Response". It could be argued that there are really no correct answers possible for this question based on the limited and unrealistic conditions provided in the stem.