



Pennsylvania Power & Light Company

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Susquehanna  
Training Center

January 20, 1992


Mr. Lee H. Bettenhausen  
N.R.C.  
475 Allendale Road  
King of Prussia, PA 19406

Susquehanna Training Center  
Regual Exams - Facility Grades  
PLA 3719 File A14-13D

Dear Mr. Bettenhausen,

Attached are the facility grades for the NRC requal exams administered at Susquehanna during the week of January 6, 1992. Also included is a summary of our results as compared to the program evaluation criteria of ES-601, our evaluation of our Licensed Regualification Program, and the completed security agreements.

We look forward to your evaluation of our program.

  
H.G. Stanley  
Superintendent of Plant - SSES

Response: No

Attachments

- cc: S. Barber w/a
- R.G. Byram w/a
- H.W. Keiser w/a
- J.M. Kenny w/a
- NTG File w/o
- SRMS:DCC-Site w/o

ASF/FacGrd

HGS/ASF/mja



Exam Report

**Self-Evaluation Summary**

During the week of January 6, 1992, NRC administered Requal exams were given at Susquehanna. Twelve individuals comprising three control room teams were examined. Results are as follows:

- Two out of three control room teams were satisfactory.
- Five out of six SROs passed the simulator exam.
- Four out of six ROs passed the simulator exam.
- All 12 operators passed the walkthrough exam.
- All 12 operators passed the written exam.
- The Requalification Program was determined to be satisfactory.
- Facility evaluators exhibited some weaknesses in the simulator evaluation.



PP&L Evaluations

**Weaknesses**

PP&L evaluators exhibited weakness in that they did not perform an adequate post scenario review to identify and validate individual simulator critical tasks based upon operator activities not identified in the scenario. This lead to disagreement between PP&L evaluators and NRC evaluators.

The evaluators were not sensitive to pressure and injection control to the RPV with all control rods not inserted.

**Corrective Action**

Delay administration of annual requalification simulator examinations until remedial training is completed by PP&L simulator evaluators.

Provide upgrade training to PP&L simulator evaluators to include:

- ES-604 review
- Scenario review.
- Practice evaluations
- Management expectations
- Standards for acceptance
- Review pressure and level control during conditions where the reactor is not shutdown

Strengths and Weaknesses

Simulator

- Strengths: Understanding and interpretation of annunciator and alarm signals.
- Diagnosis of events/conditions based on signals/readings.
- Compliance and use of procedures and technical specifications.
- Weaknesses: Understanding of plant and system response:
- One crew performed unsatisfactorily during the exam. They allowed an uncontrolled injection of condensate. Another crew allowed back-up systems to auto start and inject to the RPV.
- Control board operations:
- Several ROs demonstrated control board weakness in operating the feedwater system.
  - Cold water injection with all rods not in.
  - Vessel depressurization and cooldown control.

JPM

- Weaknesses: Bypassed APRM without thorough use of procedures/references.

Written Exam

- Weaknesses: IRM/APRM overlap verification.
- IRM rod blocks.
- Refueling bridge interlocks.
- 125 VDC ground detection.

1.0 Examination Details - Individual exam results are included on Attachment 1.

- 1.1 Simulator Exams - Three simulator exam sessions were conducted. Each exam consisted of two scenarios that were selected from the PP&L scenario bank. Post scenario modification was performed on two scenarios. This modification was the inclusion of critical steps identified during post scenario review. The scenarios proved to be adequate and discriminated between good and poor operator performance.

Although initial facility evaluation results were not in agreement with NRC results, at the conclusion of the exam, there was complete agreement.

It was identified during the exam prep week that the scenario bank needs work in the following areas:

- Total number of scenarios should be increased to 30.
- Thorough review of the scenarios to ensure examiner standard guidelines are satisfied.

- 1.2 JPM Exam - Ten JPMs were selected from the PP&L JPM bank. Each candidate performed five JPMs and answered the pre-scripted questions for five other JPMs.

The JPMs proved adequate and discriminated between good and poor operator performance.

During the exam prep week it was identified that the JPM questions were not time validated. The exam team agreed upon a standard five minutes per question. In addition, all normally available control room references were allowed to be used by the candidate.

- 1.3 Written Exam - Two type A (static simulator) exams and one type B exam were administered to the candidates. These exams were constructed from the PP&L exam bank and consisted of a total of 46 questions. These exams proved adequate and discriminated between good and poor operator performance.

One exam question required correction upon administration.





- 1.4 Sample Plan - The sample plan used to construct the evaluations was adequate and ensured a proper sampling of the Requal program content.

During pre-exam discussions it was recommended to include scenarios as part of the sample plan.

## 2.0 Program Evaluation

The Susquehanna Requal Program compares to the criteria of ES-601 as follows:

- 2.1 The facility and the NRC are in agreement on 100% of the pass/fail decisions for all portions of the exam C.2.b.(1)(a).
- 2.2 Seventy-five percent of all operators passed C.2.b.(1)(b).
- 2.3 No more than one-third of the crews failed C.2.b.(1)(c).
- 2.4 Facility concurred with crew unsatisfactory evaluations C.2.b.(2)(a).
- 2.5 Operators were evaluated in all positions permitted by their license C.2.b.(2)(b).
- 2.6 All facility evaluators were considered satisfactory C.2.b.(2)(c).
- 2.7 Administrative controls (OI-AD-44) exists that preclude a SRO or RO without an active license from assuming license duties without satisfying the requirements of 10CFR55.53 C.2.b.(2)(d).
- 2.8 Less than 10% of the questions were modified as a result of post exam analysis of the written exam. (One question was modified) C.2.b.(2)(e).
- 2.9 There were no differences between NRC and PP&L failure rate C.2.b.(2)(f).

