

U. S. NUCLEAR REGULATORY COMMISSION REGION I
OPERATOR LICENSING EXAMINATION REPORT

EXAMINATION REPORT NOS. 50-277/84-28
50-278/84-28

FACILITY DOCKET NOS. 50-277
50-278

FACILITY LICENSE NOS. DPR-44
DPR-56

LICENSEE: Philadelphia Electric Company
2301 Market Street
Philadelphia, Pennsylvania 19101

FACILITY: Peach Bottom 2 and 3

DATES: August 28 - 30, 1984

CHIEF EXAMINER: Original Signed By: *John Berry* 11/2/84
John Berry, Reactor Engineer (Examiner) Date

APPROVED BY: Original Signed By: *Edward G. Greenman* 11/2/84
Chief, Project Section 1D Date

SUMMARY: This examination report contains the results of the operator licensing examinations administered at the Peach Bottom Atomic Power Station the week of August 27, 1984. Written and Oral Examinations were administered to 3 Reactor Operator candidates, 2 Senior Reactor Operator candidates, and 3 Instructor Certification candidates. One RO candidate failed the written examination. All other candidates passed all portions of the examinations.

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REPORT DETAILS

TYPE OF EXAMS: Initial Replacement Requalification

EXAM RESULTS:

| | RO Pass/Fail | SRO Pass/Fail | Inst. Cert Pass/Fail | Fuel Handler Pass/Fail |
|----------------|-----------------|------------------|-------------------------|---------------------------|
| Written Exam | 2/1 | 2/0 | 3/0 | / |
| Oral Exam | 3/0 | 2/0 | 3/0 | / |
| Simulator Exam | / | / | / | / |
| Overall | 2/1 | 2/0 | 3/0 | / |

1. CHIEF EXAMINER AT SITE: John Berry, USNRC, Region I
2. OTHER EXAMINERS: David Lange, USNRC, Region I
Dale Hill, EG&G Idaho, Inc.
Craig Kvamme, EG&G Idaho, Inc.

3. PERSONS EXAMINED

RO
John Baldwin
Russell Hart
Leo MacEntee

SRO
Robert Birley
Adam Clark

INSTRUCTOR CERTIFICATION
Stephen Hess
Stephen Mannix
Dennis McClellan

1. Summary of generic strengths or deficiencies noted on oral exams:

A generic strength was noted among the candidates in the areas of plant systems design and control room instrumentation.

Several candidates were weak in the areas of radiation control and reactor theory.

2. Summary of generic strengths or deficiencies noted from grading of written exams:

A generic strength was noted in plant systems design.

A deficiency was noted among the candidates in nuclear power plant theory, including thermodynamic and reactor physics.

3. Comments on availability and candidate familiarization with plant reference material:

The plant reference material was readily available and the candidates were sufficiently familiar with its use.

4. Comments on availability and candidate familiarization with plant design, procedure, T. S. changes and LERs:

The candidates were very familiar with the design of plant systems.

5. Comments on interface effectiveness with plant training staff and plant operations staff during exam period.

The training and plant operations staffs were both helpful and cooperative during the exam period.

6. Improvements noted in training programs as a result of prior operator licensing examinations/suggestions, etc:

No suggestions for improvements in training programs were made.

7. Personnel Present at Exit Meeting:

NRC Personnel

John Berry, USNRC, BWR Chief Examiner, Region I
David Lange, USNRC, Examiner, Region I
Robert Keller, USNRC, Chief, Operator Licensing Section, Region I
Lynn Banavitch, USNRC, Examiner Trainee, Region I
Tom Johnson, USNRC, Reactor Engineer, Region I
Herb Williams, PBAPS Resident Inspector, USNRC

NRC Contractor Personnel

Dale Hill, EG&G Idaho, Inc.
Craig Kvamme, EG&G Idaho, Inc.

Facility Personnel

R. Fleischmann
D. Smith
J. Latham
S. Roberts
R. Bulmer

8. Summary of NRC Comments made at exit interview:

The examiners stated that all candidates would be recommended as clear passes for the oral section of their licensing examinations.

The examiners noted that some candidates were weak in the areas of reactor theory (e.g., reactivity coefficients) and radiation control theory (e.g., radiation interaction with matter).

Because an in-house emergency drill was conducted on Wednesday, August 29, 1984 the examiners were somewhat hindered during the administration of the oral exams due to the additional people in the control room. The examiners suggested that this situation be avoided in the future.

9. Summary of facility comments and commitments made at exit interview:

The facility training staff commended the EG&G examiners for preparing a fair and effective written examination.

The staff apologized for the inconvenience caused by the emergency drill and said this situation would be avoided in the future.

10. CHANGES MADE TO WRITTEN EXAM

The facility's comments on the written examinations, and the resolution of those comments by the grading examiners, is attached.

Attachment:

Written Examination(s) and Answer Key(s) (SRO/RO)

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John Berry, Reactor Engineer (Examiner) Date

APPROVED BY: Edward A. Hummer / R.E.
Robert M. Keller, R.E. 11/2/84
Chief, Project Section 1D Date

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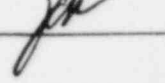
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Date 9-10-84

To J. A. Berry From J. C. Kvamm 
Org. NRC, Region I Org. INEL
Address _____ Address _____

RESPONSE TO PEACH BOTTOM WRITTEN EXAM COMMENTS

The following are Dale Hill's & my responses to the Peach Bottom Review Comments of their RO & SRO exams given 8-28-84.

1. 3.04 - Comment accepted as supporting references were supplied.
2. 3.05b - Comment accepted as supporting references were supplied.
3. 4.05c - Answer Key modified to accept injection valve opening <450 psig and pump's rated flow at 250 psig. No specific number required as it is difficult to determine.
4. 7.03b - Comment accepted as supporting references were provided.

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