

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

EXAMINATION REPORT NO. 50-334/88-24(OL)

FACILITY DOCKET NO. 50-334

FACILITY LICENSE NO. DPR-66

LICENSEE: Duquesne Light Company
Post Office Box 4
Shippingport, Pennsylvania 15077

FACILITY: Beaver Valley Power Station Unit 1

EXAMINATION DATES: August 17 and 18, 1988

CHIEF EXAMINER

Peter E. Briggs
for Larry E. Briggs, Senior Operations Engineer

9-27-88
Date

APPROVED BY:

Peter E. Briggs
Peter E. Briggs, Chief, PWR Section
Operations Branch, Division of Reactor Safety

9-27-88
Date

SUMMARY: Written examinations and operating tests were administered to two (2) senior reactor operator (SRO) candidates. One SRO passed the examinations.

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DETAILS

TYPE OF EXAMINATION: Replacement

EXAMINATION RESULTS:

	RO Pass/Fail	SRO Pass/Fail
Written	0 / 0	1 / 1
Operating	0 / 0	2 / 0
Overall	0 / 0	1 / 1

1. CHIEF EXAMINER AT SITE: Larry E. Briggs, Senior Operations Engineer
2. OTHER EXAMINERS: James Prell, Senior Operations Engineer
3. PERSONNEL PRESENT AT THE EXIT INTERVIEW:
Tom Burns, Director Operations - Training
James Crum, Nuclear Operations and Maintenance Instructor
Larry Freeland, Nuclear Operations Supervisor

4. SUMMARY OF NRC AND LICENSEE COMMENTS MADE AT THE EXIT MEETING

- a. The NRC expressed appreciation to the Training and Operations Departments for providing assistance in expediting the examination process.
- b. The NRC reviewed the number and type of examinations conducted during the week and observations made.
- c. There were no generic strengths or weaknesses observed during the examinations due to the limited number of candidates.
- d. The following is a summary of NRC comments concerning reference material supplied by the facility for exam preparation.
 1. The examiner noted that some Operating Manuals (OM) did not appear to support the Enabling Objective and should be reviewed to determine applicability. In particular the OM for the Reactor Coolant Pump appeared to be deficient.
 2. The examiner noted that although OM's and other reference material had an index in the front of the manual there were no tabs provided for easy access to each desired section. This caused a protracted period for exam preparation.
 3. The examiner noted that the annunciator response procedures contained in the OM's were not in any logical sequence and almost unusable in the provided format. Those in the control room are contained in separate binders divided by annunciator section.
 4. The examiner stated that the P&IDs provided were reduced in size to the point of poor quality and were often unreadable even with a magnifying glass.

The licensee's response to comments 1 through 4 was that an effort would be made to upgrade the reference material that would be supplied for future exam preparation.

- e. The NRC stated that during the plant walkthrough portion of the operating test, it was observed that the remote shutdown panel did not incorporate any physical restrictions to prevent control and operation transfer between the control room and the shutdown panel. The licensee said that this concern would be evaluated to determine acceptability.

Attachments:

1. NRC response to facility comments.
2. Facility comments on written examination
3. Written Examination and Answer Key (SRO)

ATTACHMENT 1

NRC RESPONSE TO FACILITY COMMENTS

The following statements address the NRC's disposition of comments submitted by the facility (see attachment 2) on the written SKO examination and changes made to the answer key during the grading process.

- 5.0 THEORY OF NUCLEAR POWER PLANT OPERATION, FLUIDS AND THERMODYNAMICS
- 5.07.a.1&2 Comment noted. Credit was given if candidate specified assumed plant conditions in answer.
- 5.07.a. Answer key revised during grading to delete "Early extrapolation of the 1/M plot results in a late prediction of criticality" since the question would not elicit that part of the answer. Question point value was reduced by 0.5 points.
- 6.0 PLANT SYSTEMS DESIGN, CONTROL AND INSTRUMENTATION
- 6.03.e & f Comment accepted. As stated, the reference material was in error. The answer key was changed in part e. to reflect the correct valve number. Part f. was changed to denote that the valve did not receive an ESF signal.
- 6.05.a. Answer key revised during grading to include OT delta T and P11 as acceptable answers.
- 6.06 Comment accepted. Answer key was changed to indicate that final steady state SG level would be at normal program level.
- 6.09.a.3 Comment accepted. Answer key changed to "Trip of all running main feed pumps".
- 6.09.a.4 Comment accepted. Answer key changed to "Steam driven AFW start signal not followed by discharge pressure".
- 6.09.b Answer key revised during grading to accept "breaker racked out" as an acceptable answer.
- 6.09.c Comment accepted. Valve position changed from not fully open to "not fully closed".

- 7.0 PROCEDURES-NORMAL, ABNORMAL, EMERGENCY AND RADIOLOGICAL CONTROL
- 7.02.a. Answer key revised during grading to accept "Local manual trip of the turbine" as an acceptable part of the answer.
- 7.02.b Comment accepted. Answer key revised to include "RCS subcooling less than attachment" and "Pressurizer level less than 5 percent" as acceptable answers.
- 7.07 Comment accepted. "Lifetime exposure is more limiting" was deleted from the answer key and the question point value was reduced by 0.25 points. Although not specifically asked for in the question it was necessary for the candidate to determine which exposure limit was the most restrictive in order to answer the question.
- 8.0 ADMINISTRATIVE PROCEDURES, CONDITIONS AND LIMITATIONS
- 8.01 Comment accepted. Credit was given if the candidate stated the assumption that the primary to secondary leakage was in only one steam generator. Due to the wording of the RCP seal leakage statement of the question it would be possible for the candidate to consider the 4.2 GPM as either controlled leakage or identified leakage. The answer key was revised to include Identified Leakage as one of the acceptable answers.
- 8.03.1 Comment accepted in part. Sufficient information was given for the candidate to recognize that a fire in the diesel generator breaker had disabled the diesel generator for 24 hours. Tab 26 of EPP/I-1 definition of an Alert states "Fire which POTENTIALLY affects safety systems". Loss of an Emergency Diesel Generator due to a fire definitely has the potential to affect safety systems.
- The answer key was changed as follows: Classification level to "Alert" and Justification to "Fire which potentially affects safety systems".
- 8.04 Comment not accepted. SRO's are required to be able to recognize that they have exceeded an LCO and entered an action statement. They must also know that they cannot change modes (toward mode 1) while relying on a action statement, if 3.0.4 is applicable. If the candidate does not know if 3.0.4 does or does not apply then he can state action for both cases.

- 8.05.c. Comment accepted. Answer key revised to incorporate new personnel titles.
- 8.07.a. Answer key revised during grading to reflect that Tab 1 of EPP/1-1 would require an unusual event to be declared for an unplanned release. This would require a "One hour notification" and a "30 day LER" IAW SAP 3B No. 31.
- 8.10.c. Comment noted. The question asks for two things, what notifications must be made and to indicate which of those notification(s) must be made in one hour.