

PHILADELPHIA ELECTRIC COMPANY

LIMERICK GENERATING STATION

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January 17, 1992

GRAHAM M. LEITCH
VICE PRESIDENT
LIMERICK GENERATING STATION

Docket Nos. 50-277
50-278
50-352
50-353

License Nos. DPR-44
DPR-56
NPF-39
NPF-85

Mr. Thomas T. Martin, Regional Administrator
U. S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406

Subject: Peach Bottom Atomic Power Station, Units 2 and 3
Limerick Generating Station, Units 1 and 2
Limited Senior Reactor Operator License Written
Examination Post-Exam Review Comments

Dear Mr. Martin:

On January 2, 1992, a pre-exam review of the multisite Limited Senior Reactor Operator (LSRO) (i.e., for fuel handling) license written examination was conducted by members of the Philadelphia Electric Company (PECo) Nuclear Training Section at the USNRC Region I offices. As a result of this review, concerns were identified with several of the examination questions, and a consensus was reached between PECo and the NRC on recommended revisions to the examination. The multisite LSRO written examination was administered by the NRC on January 13, 1992, at Limerick Generating Station. As a result of a post-exam review by PECo Nuclear Training Section personnel, and comments received by the multisite LSRO license candidates, concerns were identified with the written examination which were not completely addressed or resolved by the pre-exam review. These concerns (identified by the examination question number) are provided in Attachment 1 to this letter. We request that these concerns be considered for inclusion in the written examination grading process by the NRC.

If you have any questions, please contact Mr. E. S. Bright - Nuclear Training Section at (215) 640-6663.

Sincerely,

9203170161 920306
PDR ADOCK 05000277
V PDR

Attachment

cc: T. J. Kenny, USNRC Senior Resident Inspector, LGS (w/o attachment)
J. J. Lyash, USNRC Senior Resident Inspector, PBAPS (w/o attachment)
J. H. Williams, USNRC Chief Examiner, Region I (w/ attachment)
Document Control Desk, USNRC, Washington, D. C. (w/o attachment)

ATTACHMENT 1

LIMERICK GENERATING STATION UNITS 1 & 2
PEACH BOTTOM ATOMIC POWER STATION UNITS 2 & 3
MULTI-SITE LSRO NRC WRITTEN EXAM CONCERNS

QUESTION: 006 (1.00)

CONSIDERATION REQUESTED: Deletion

BASIS FOR REQUEST: Per LGS HP-102 the annual dose is limited to 4,000 mr/yr. No response of 0.0 Hrs is provided, therefore deletion is requested. If the question is retained, then per Lesson Plan LSRO-1705 page 19 of 33, a limit of 4,500 mr/yr is referenced. Using this value response c is the most correct answer.

QUESTION: 008 (1.00)

CONSIDERATION REQUESTED: Correct Answer c

BASIS FOR REQUEST: The primary method for limiting exposure on the refuel platform during core off-load is flooding the cavity to work underwater.

QUESTION: 015 (1.00)

CONSIDERATION REQUESTED: Deletion

BASIS FOR REQUEST: All responses provided are within a range of answers obtainable by the candidates. Calculations are based upon a candidate's reasonable interpretation of graphed values. The graph referenced in the question was duplicated from Lesson Plan GF-0260 where it was intended for use as a classroom visual aid, not as a tool for problem solving exercises. It was also noted that less than 50% of the candidates selected the same response. All responses were selected at least once.

QUESTION: 017 (1.00)

CONSIDERATION REQUESTED: Deletion

BASIS FOR REQUEST: This question tests knowledge of generic time limitations for the restart of large motors. This is not the intent of the referenced objective GF-0780 LO-6 291005K106 [2.9/3.1] which states " Give the reason for limiting the number of motor starts in a given time period." Three of the responses provided gave the correct reason but at different time intervals.

QUESTION: 018 (1.00)

CONSIDERATION REQUESTED: Correct Answers b, c, d

BASIS FOR REQUEST: Response b is correct, the bridge trolley can move at fast speed out of the jog zone. Response c is correct if the bypass button is depressed (bypass button condition not given). Reference LSRO-0760 page 15 and 16.

QUESTION: 028 (1.00)

CONSIDERATION REQUESTED: Deletion

BASIS FOR REQUEST: No correct answer is given per Technical Specification 3.5.2 in that one RHR pump capable does not meet the operability requirements of a LPCI subsystem.

QUESTION: 048 (1.00)

CONSIDERATION REQUESTED: Correct Answers b, d

BASIS FOR REQUEST: The answer key identifies d as the correct response as it includes both an electrical limit and a mechanical stop. It is contended that b is also a correct answer in that the question is in regard to interlocks. Mechanical stops are a backup and final means of personnel and equipment protection in the event of an interlock failure.

QUESTION: 058 (1.00)

CONSIDERATION REQUESTED: Deletion

BASIS FOR REQUEST: This question does not test the knowledge intended by the referenced objective LSRO-0760 LO-6 which states "Describe the refueling interlocks associated with....". The question is testing knowledge of the physical composition of the interlock, not a description of the result of interlock operation. Additionally, the responses are referenced from a "note" in a procedural step of which the candidates are not accountable for by learning objective.

REQUEST SUMMARY:

QUESTION:

006
008
015
017
018
028
048
058

REQUEST:

DELETION
CORRECTION
DELETION
DELETION
MULTIPLE ANSWER
DELETION
MULTIPLE ANSWER
DELETION

NRC RESPONSE TO FACILITY COMMENTS

Following the pre-examination review of the multi-site Limited Senior Reactor Operator (LSRO) license written examination, all facility comments were addressed and incorporated into the examination material, including replacement of several questions. Facility representatives agreed that the examination was both fair and reasonable following this review.

The NRC response to the facility's post-examination review comments is below.

QUESTION: 006 (1.00)

CONSIDERATION REQUESTED: Deletion

BASIS FOR REQUEST: Per LGS HP-102 the annual dose is limited to 4,000 mr/yr. No response of 0.0 Hrs is provided, therefore deletion is requested. If the question is retained, then per Lesson Plan LSRO-1705 page 19 of 33, a limit of 4,500 mr/yr is referenced. Using this value response c is the most correct answer.

NRC RESPONSE: Comment not accepted. The question and answer were derived using the referenced Lesson Plan (LSRO-1705) from which the applicant's were trained. HP-102 (LGS) would appear to limit exposure to 4000 mr/yr, while A-106 (PRAPS) allows an individual to exceed 4000 mr/yr with Vice President approval. The training material does not match either of the facility's procedures, nor does it identify the differences in procedures at the two sites.

This question was revised following the pre-examination review to incorporate facility comments.

The answer key provided to the facility with the exam was in error, and the correct answer is c.

QUESTION: 008 (1.00)

CONSIDERATION REQUESTED: Correct Answer c

BASIS FOR REQUEST: The primary method for limiting exposure on the refuel platform during core off-load is flooding the cavity to work underwater.

NRC RESPONSE: Comment accepted. The answer key provided to the facility with the exam was in error, and the correct answer is c.

This question was revised following the pre-examination review to incorporate facility comments.

QUESTION: 015 (1.00)

CONSIDERATION REQUESTED: Deletion

BASIS FOR REQUEST: All responses provided are within a range of answers obtainable by the candidates. Calculations are based upon a candidate's reasonable interpretation of graphed values. The graph referenced in the question was duplicated from Lesson Plan GF-0260 where it was intended for use as a classroom visual aid, not as a tool for problem solving exercises. It was also noted that less than 50% of the candidates selected the same response. All responses were selected at least once.

NRC RESPONSE: Comment accepted. The graph supplied with the examination may not have provided sufficient detail to allow the examinees to obtain the expected response.

There were no comments that required question revision made on this question during the pre-examination review.

QUESTION: 017 (1.00)

CONSIDERATION REQUESTED: Deletion

BASIS FOR REQUEST: This question tests knowledge of generic time limitations for the restart of large motors. This is not the intent of the referenced objective GF-0780 LO-6 291005K106 [2.9/3.1] which states "Give the reason for limiting the number of motor starts in a given time period." Three of the responses provided gave the correct reason but at different time intervals.

NRC RESPONSE: Comment not accepted. This question was derived almost verbatim from the referenced lesson plan and the correct answer should have been selected by the knowledgeable examinee. System Generic K/A's require that examinees demonstrate the ability not only to explain but also to apply system limits and precautions. Knowledge such as that tested in this question is necessary to apply the precaution regarding start attempts for large motors.

There were no comments that required question revision made on this question during the pre-examination review.

QUESTION: 018 (1.00)

CONSIDERATION REQUESTED: Correct answers b, c, d

BASIS FOR REQUEST: Response b is correct, the bridge trolley can move at fast speed out of the jog zone. Response c is correct if the bypass button is depressed (bypass button condition not given). Reference LSRO-0760 page 15 and 16.

NRC RESPONSE: Comment not accepted. The Boundary Zone Bypass light indicates that the Refuel Platform is in the Exclusion Zone, therefore answers a and b cannot be correct. The stem of the question and the answers did not specify that the Boundary Zone Computer was bypassed. Examinees did not inquire about the status of the bypass button when responding to this question during the examination (no clarifications were requested on this question). Therefore, answer c is not correct.

There were no comments that required question revision made on this question during the pre-examination review.

QUESTION: 028 (1.00)

CONSIDERATION REQUESTED: Deletion

BASIS FOR REQUEST: No correct answer is given per Technical Specification 3.5.2 in that one RHR pump operable does not meet the operability requirements of a LPCI subsystem.

NRC RESPONSE: Comment accepted.

There were no comments that required question revision made on this question during the pre-examination review.

QUESTION: 048 (1.00)

CONSIDERATION REQUESTED: Correct answers b, d

BASIS FOR REQUEST: The answer key identifies d as the correct response as it includes both an electrical limit and a mechanical stop. It is considered that b is also a correct answer in that the question is in regard to interlocks. Mechanical stops are a backup and final means of personnel and equipment protection in the event of an interlock failure.

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QUESTION: 058 (1.00)

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BASIS FOR REQUEST: This question does not test the knowledge intended by the referenced objective LSRO-0760 IO-6 which states "Describe the refueling interlocks associated with". The question is testing knowledge of the physical composition of the interlock, not a description of the result of interlock operation. Additionally, the responses are referenced from a 'note' in a procedural step of which the candidates are not accountable for by learning objective.

NRC RESPONSE: Comment not accepted. This question addresses the examinee's depth of knowledge and understanding of an important refueling interlock. The switches that operate this interlock are highly susceptible to damage during refueling operations. Understanding of the makeup of the interlock is important to the examinee's ability to apply his/her knowledge of fuel handling equipment interlocks in order to identify and interpret operational problems encountered during refueling.

There were no comments that required question revision made on this question during the pre-examination review.