



PECO ENERGY

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License Nos. NPF-39
NPF-85

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

SUBJECT: Limerick Generating Station, Units 1 and 2
Summary of Licensed Operator Requalification Examination
Results

On February 10, 1994, representatives from PECO Energy Company and the Nuclear Regulatory Commission (NRC) met at NRC Region I offices to discuss the results of the Limerick Generating Station (LGS) 1993 Licensed Operator Requalification (LOR) examinations. This meeting was held in response to NRC letter dated December 2, 1993, which issued Combined Inspection Report Nos. 50-352/93-27 and 50-353/93-27. This report contained findings related to operator and evaluator performance during the job performance measure portion of the requalification examination. As discussed at the meeting, and subsequently requested by NRC letter dated March 1, 1994, attached is a summary of the LOR examination results, and of PECO Energy's assessment, including root causes and corrective actions, of the NRC findings.

If you have any questions or require additional information, please contact us.

Very truly yours,

GHS

Attachment

cc: T. T. Martin, Administrator, Region I, USNRC w/attachment
N. S. Perry, USNRC Senior Resident Inspector, LGS "

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April 5, 1994
Page 2

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LIMERICK GENERATING STATION

Summary of Licensed Operator Requalification Examination Results and Assessment of NRC Finding Related to Operator and Evaluator JPM Performance

1993 Exam Performance Summary

	RO (PASS/FAIL)	SRO (PASS/FAIL)	TOTAL (PASS/FAIL)
WRITTEN	23/0	33/1	56/1
SIMULATOR	22/2*	32/2	54/4
JPMs	23/0	34/0	57/0

* One RO took the simulator examination only

The written examination average was 94.9%. There was one (1) simulator "crew failure," and seven individuals each failed one Job Performance Measure (JPM).

Summary of NRC Finding

Operators made several mistakes using procedures during the JPM portion of the operating examination. Exam evaluators identified the mistakes, but accepted them based on a consideration of whether the task was accomplished safely, rather than whether operator performance met management expectations. If the task was accomplished and no precautions or limitations were violated by the mistake, then the JPM was considered to be passed. Management expectations were provided as feedback to the individual operator at the conclusion of the examination.

JPM Program Process Review

In response to NRC Inspection Report 50-352/93-27 and 50-353/93-27, the Vice President, Limerick Generating Station (LGS) requested the Chairman, Nuclear Review Board (NRB), a former Plant Manager at LGS, to convene a team of personnel with operations and training background to review the present JPM process at LGS for improvement areas and root causes of the NRC findings.

The review team was composed of eight members who are currently or were formerly licensed or certified, and represented LGS, PECO Energy Company's Peach Bottom Atomic Power Station, Northeast Utilities - Millstone, and GPU Nuclear - Oyster Creek. The visiting site personnel were selected because of their utility's reputation for excellent JPM processes as identified by the NRC and the Institute of Nuclear Power Operations. Process support to the team was supplied by PECO's Nuclear Strategic Support Team.

The review process was designed to have several short meetings with PECO participants to define the review process and schedule. This was followed by an intensive, four day period at LGS with all team members participating. The four day period included JPM process orientation, observations of JPMs in the simulator and the plant, the conduct of focus groups with personnel involved with JPMs, the performance of information analysis, and development of conclusions and root cause.

A variety of data and information collection and analysis techniques were used during the review process. JPMs were observed by team members with specific team criteria used for evaluation to augment the actual JPM process and documents. Individuals observed as evaluators and JPM performers were familiar with the NRC inspection process as well as PECO criteria for performance and evaluation of JPMS. Interviews or focus groups were conducted with operations, training and station management personnel using a series of open-ended questions developed to elicit information about the JPM process.

Information and data analysis techniques included the use of: the Total Quality Management's problem statement model, the Management Oversight and Risk Tree process as a background for fault tree analysis, PECO's root cause categories for fault tree analysis and as a check for completeness, PECO's Antecedent/Behavior/Consequence model to analyze a particular behavior observed during the process and a difference analysis between utilities and other aspects of the LGS JPM process. Category delineation and multi-voting were used to prioritize various results of data reduction. Consensual decision making was applied by the group to determine the root causes.

At the conclusion of the four day period, the team performed a documented self-assessment of the review process.

Root Causes of the Findings

The following root causes were identified as a result of the team review of the JPM process at LGS:

- 1) procedure human factors were on occasion not conducive to procedure compliance and it was perceived that the procedures could not easily be revised,
- 2) there was a lack of training and standards for persons giving and taking JPM training,
- 3) there was a lack of independent oversight of the JPM process by operations and training management, and
- 4) the application of a monetary bonus for JPM performance evaluations affected evaluator and operator JPM performance due to added pressure.

Corrective Actions

Improved procedure writing guidance will be developed and implemented by April 29, 1994. In addition, a Procedures Partnership Program has been implemented at LGS which pairs an operator with each system manager. This program is intended to serve primarily as an opportunity to include operations personnel in the procedure writing function, and offers the operators an easier way of ensuring that their ideas for procedure improvements are implemented. This program has been in limited operation, and will be enhanced by April 29, 1994, to increase operator input.

To improve JPM development and usage, a draft JPM writer and examiner guideline has been developed. This guideline is expected to be approved by April 29, 1994. This guideline will include provisions for imbedding management expectations in the JPMs, and will also include critical task selection criteria. As an immediate corrective action, a training module on JPM performance expectations has been included in Cycle 2 (the current six week training cycle) of licensed operator requalification (LOR) training which is scheduled to be completed by April 29, 1994. In addition, JPM training is scheduled for all licensed operators in all LOR training cycles for 1994.

To improve the independent oversight by operations and training management, a JPM monitoring program will be established. This monitoring program will be incorporated into the operations strategic training agreement by April 29, 1994. The strategic training agreement provides a mechanism to formalize mutual expectations between training and functional line management. In addition, observations from the monitoring program will be summarized and included in the Cycle Assessment Report following each six week LOR training cycle.

Attachment
April 5, 1994
Page 4

The license bonus program was a pilot program that was developed to enhance operator performance. This program is being revised to minimize pressure related impact on the individuals involved in the JPM process. This revised program is expected to be approved and implemented before the next LOR examinations which are currently scheduled to be conducted starting November 14, 1994.