October 15, 1998

EA 98-390

Mr. G. Rainey, President
PECO Nuclear
Nuclear Group Headquarters
Correspondence Control Desk
P. O. Box 195
Wayne, PA 19087-0195

SUBJECT: LIMERICK UNITS 1 AND 2 INSPECTION REPORTS 50-352/98-06 AND 50-353/98-06 (REPLY TO NOTICE OF VIOLATION)

Dear Mr. Rainey:

This letter refers to your September 18, 1998, correspondence , in response to our letter of August 26, 1998. We have reviewed the corrective actions stated in your response using the guidance of NRC Inspection Procedure 92902, "Maintenance."

The violation involved a failure to select performance measures that would effectively demonstrate that two structures, systems, and components (SSCs) (safety relief valves and spent fuel pool cooling system) would remain capable of performing their intended function. Your stated corrective actions and root cause identification to address these SSCs appears to be acceptable.

Your self-identification of 23 additional SSCs that may also have inappropriately established performance measures indicates a thorough review was conducted by your plant staff. We understand that you expect action to address the additional 23 SSCs will be completed by December 21, 1998. We will schedule an inspection to review your completed corrective actions subsequent to you final completion date.

Your additional findings constitute additional examples of the violation described in our August 26, 1998 Notice and are not being cited. No additional response to the violation is required. Further corrective actions for these additional examples are expected to be taken in conjunction with corrective actions for the previously cited violation.

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Thank you for your cooperation.

Sincerely,

Richard J. Conte, Chief
Operator Licensing and
Human Performance Branch
Division of Reactor Safety

Docket Nos. 50-352; 50-353

cc:
J. J. Hagan, Vice President, Nuclear Station Support
G. Edwards, Chairman, Nuclear Review Board and Director - Licensing
J. von Suskil, Vice President - Limerick Generating Station
M. P. Gallagher, Plant Manager, Limerick Generating Station
T. Moore, Manager, Experience Assessment
Secretary, Nuclear Committee of the Board
Commonwealth of Pennsylvania

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DATE	10/07/98		10/ /98		10/15/98		10/ /98		10/ /98	

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DMH 10/9/98 Also discussed with D. Nelson, OE. → I added text for EGM 98-06.

Michael P. Gallagher, P.E.
Plant Manager
Limerick Generating Station

PECO NUCLEAR
A Unit of PECO Energy

PECO Energy Company
Limerick Generating Station
PO Box 2300
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610 718 2000

10 CFR 2.201

September 18, 1998

Docket Nos. 50-352
50-353

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
Reply to a Notice of Violation
NRC Inspection Report 50-352/98-06 and 50-353/98-06

Attached is PECO Nuclear's reply to a Notice of Violation for Limerick Generating Station (LGS) Unit 1, that was contained in your letter dated August 26, 1998. The Notice identified one violation, with two examples, where performance measures for certain structures, systems, and components were not adequately established. The attachment to this letter provides a restatement of the violations followed by our reply.

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

Very truly yours,

Michael P. Gallagher

Enclosure
Attachments

cc: H. J. Miller, Administrator, Region I, USNRC w/attachments
A. L. Burritt, USNRC Senior Resident Inspector, LGS "

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bcc:

G. R. Rainey - CB, 63C-3	w/attachments
J. D. von Suskil - SMB1-1	"
R. W. Boyce - CB, 63C-3	"
M. P. Gallagher - GML5-1	"
J. P. Grimes - SSB3-1	"
G. D. Edwards- CB, 62A-1	"
J. E. Cohen - SSB4-3	"
T. A. Moore - SSB2-4	"
LGS ISEG - SSB4-2	"
NRB Chairman - CB, 62A-1	"
Secretary, NCB - CB, 62A-1 (11 copies)	"
PA DEP BRP Inspector - SSB2-4	"
OEAP Coordinator - CB, 62A-1	"
Correspondence Release Point - SMB1-2	"
DAC - SMB1-2	"

REPLY TO A NOTICE OF VIOLATION

Restatement of the Violations

During an NRC inspection conducted from July 6 through 10, 1998, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedures for NRC Enforcement Actions," NUREG 1600, Revision 1, the violation is delineated below:

> 10 CFR 50.65(a)(1) requires, in part, that holders of an operating license shall monitor the performance or condition of structures, systems and components (SSCs),within the scope of the monitoring program, as defined by 10 CFR 50.65(b), against licensee established goals, in a manner sufficient to provide reasonable assurance that such SSCs are capable of fulfilling their intended functions. Such goals shall be established commensurate with safety and, where practical, take into account industry-wide operating experience. When the performance or condition of a SSC does not meet established goals, appropriate corrective action shall be taken.
>
> 10 CFR 50.65(a)(2), requires, in part, that the monitoring as specified in 10 CFR 50.65(a)(1) is not required where it has been demonstrated that the performance or condition of a SSC is being effectively controlled by performing appropriate preventive maintenance, such that the SSC remains capable of performing its intended function.
>
> Contrary to 10 CFR 50.65(a)(2), as of July 10, 1996, (the time that the licensee elected to not monitor the performance or condition of the Safety Relief Valves and the Spent Fuel Pool Cooling system against licensee established goals pursuant to the requirements of 10 CFR 50.65 (a)(1)) the licensee failed to demonstrate that the performance or condition of these systems, within the scope of 10 CFR 50.65, had been effectively controlled through the performance of appropriate preventive maintenance in accordance with the requirements of 10 CFR 50.65(a)(2). Specifically, the licensee failed to adequately evaluate the appropriateness of the performance of preventive maintenance on these SSCs prior to placing SSCs under Paragraph (a)(2). The licensee failed to establish adequate performance measures for the SSCs and was therefore unable to effectively demonstrate that the SSCs remained capable of performing their intended function as listed below.
>
> - Safety Relief Valves(SRV) -Reliability performance measures, in part, were no failures of any grouping of SRVs to lift before the ASME code safety limit for maximum reactor coolant system pressure. This measure would allow multiple SRVs to exceed their technical specification set point limits and thus would not ensure that the SRVs remain capable of performing their intended function.
>
> - Spent fuel pool cooling system -Reliability performance measure was no more than two system failures within a two year operating cycle that would result in a loss of spent fuel cooling. This measure allowed repetitive failures of individual operating and standby trains without placing the system in an (a)(1) status. Specifically, as of July 10, 1996 using this measure, the system was placed in the (a)(2) category despite two complete system failures and multiple individual train failures.

This is a severity level IV violation, NUREG-1600, Revision 1, Supplement I

Admission of the Violation

PECO Energy acknowledges the violation.

Reasons for the Violations

Both examples cited in the violation were caused by the selected performance criteria being inadequate in that it could have allowed the system to degrade to a point where it would be incapable of fulfilling its intended function. This situation resulted from interpretation of performance monitoring guidance contained in NUMARC 93-01.

The reason for example (1) was the bases of the performance indicator which stated that the failure of any groupings of SRVs to lift which challenges or exceeds the safety limit for maximum Reactor Coolant System Pressure. This definition of functional failure for the SRVs was developed to indicate further degradation of the SRV performance. The SRV setpoint drift issue has been an industry issue since 1985. Actions have been taken and plans are in place to resolve this industry issue. Based on the historical performance of the SRVs, setting the Maintenance Rule performance indicator at a component level similar to the Technical Specification requirement would not have provided any new information and would not have indicated when further degradation had occurred. Therefore, the performance indicator was set as stated above.

The reason for example (2) was that the Fuel Pool Cooling system was scoped into the Maintenance Rule for being used in the EOP's. The system is not risk significant and is normally in service. Since there are multiple trains in this system which can all be cross-configured, train level monitoring did not seem appropriate. The entry condition for the associated EOP seemed to be an appropriate performance indicator since this was the bases for the system being scoped into the rule. Corrective actions had been taken for the past pump motor failures. Based on the selected performance indicator and the current performance of the system, the system was not classified as (a)(1).

Corrective Actions Taken and Results Achieved

Completed corrective actions for example (1) are described below. The performance indicator for "SRV - Component MPFFs" has been changed to only address the inadvertent lift of a single SRV. A new performance indicator for "SRV - Component FFs" has been added. Within this performance indicator, a functional failure is defined as the failure of a single SRV to lift within +/- 1% of its setpoint. The performance criteria has been set at 3 FFs/24 months to be consistent with Technical Specifications.

Completed corrective actions for example (2) are described below. The Fuel Pool Cooling system performance indicator of ON-125 Entries remains as a system level indicator; however, two new performance indicators have been added to monitor at a lower level so as not to mask equipment failures. The new performance indicators are

"Pump MPFFs" and "Heat Exchanger MPFFs". Based on historical data and procedural guidance, the performance criteria for these indicators has been set at 2 MPFF's/24 months and 1 MPFF/ 24 months, respectively.

Corrective Actions to Avoid Future Noncompliance

All non-risk significant SSCs within the Maintenance Rule scope were reviewed to determine if any other SSC's are currently being monitored at a level where possible masking could occur or the system could degrade to a point where it would be incapable of fulfilling its intended function. Twenty-three (23) SSCs were identified as having system or plant level monitoring where possible masking could occur. These SSC's are being evaluated to determine the appropriate level of monitoring necessary to ensure that masking of failures does not occur.

Date When Full Compliance was Achieved

The new performance indicator for "SRV - Component FFs" was approved for SSC 41A by the Expert Panel on September 17, 1998. Within this performance indicator, a functional failure is defined as the failure of a single SRV to lift within +/- 1% of its setpoint. The performance criteria was approved at 3 FFs/24 months to be consistent with Technical Specifications.

The new performance indicators for "Pump MPFFs" and "Heat Exchanger MPFFs" were approved by the Expert Panel on September 17, 1998. Based on historical data and procedural guidance, the performance criteria for these indicators was approved as 2 MPFF's/24 months and 1 MPFF/ 24 months, respectively.

The additional twenty-three (23) SSC's which may require revision will be evaluated. For those determined to require revision, the performance indicators and criteria will be established and approved by the expert panel by December 21, 1998.

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