PHILADELPHIA ELECTRIC COMPANY

NUCLEAR GROUP HEADQUARTERS

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September 19, 1990

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
NRC Generic Letter 89-19, "Request for Action Related to Resolution of Unresolved Safety Issue A-47 'Safety Implications of Control Systems in LWR Nuclear Power Plants'," Submittal of Special Report.

Gentlemen:

NRC Generic Letter (GL) 89-19, dated September 20, 1989, requested licensees to provide a statement as to whether licensees will implement the recommendations provided in Enclosure 2 of the GL. The GL also required licensees to provide a schedule for implementation of the recommendations and the basis for the schedule or to provide appropriate justification if the recommendations were not going to be implemented. Our response to GL 89-19 for Limerick Generating Station (LGS), Units 1 and 2, was provided by our letters dated March 20, 1990, and May 4, 1990.

As identified in our May 4, 1990 letter, an investigation was performed concerning a Reactor Pressure Vessel (RPV) rapid depressurization transient which could result in an overfill condition. As a result of this investigation, procedural enhancements have been made to ensure that plant operators can more effectively mitigate a RPV overfill event, specifically as a result of a rapid RPV depressurization. Our May 4, 1990 letter stated that the details of this investigation and procedural enhancements would be included in a Special Report submitted to the NRC. Accordingly, the Attachment to this letter provides this Special Report.

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

Very truly yours,

G. A. Hunger, Jr.

G. A. Hunger, Jr.
Manager
Licensing
Nuclear Engineering and Services

Attachment

cc: T. T. Martin, Administrator, Region I, USNRC
T. J. Kenny, USNRC Senior Resident Inspector, LGS

Limerick Generating Station, Units 1 and 2
Generic Letter 89-19
"Request for Action Related to Resolution of
Unresolved Safety Issue A-47 'Safety Implication
of Control Systems in LWR Nuclear Power Plants'"
Special Report

As referenced to in our response to Generic Letter 89-19, dated May 4, 1990, a separate investigation was performed concerning a Reactor Pressure Vessel (RPV) rapid depressurization transient which could result in an overfill condition. As a result of this investigation, procedural enhancements have been made to ensure that operators can more effectively mitigate an RPV overfill event, specifically as a result of a rapid RPV depressurization.

Operational Transient (OT) procedure OT-110, "Reactor High Level," has been revised and implemented to address the subject issue. Procedure OT-110 is entered whenever there is an unexpected or unexplained rise in RPV water level, which could be due to condensate injection. This procedure is applicable whenever RPV overfill transient would be a concern; during normal operation, plant transients, startups and shutdowns. The Main Control Room (MCR) operators are alerted to this condition by annunciation of the "Reactor HI-LO Level" alarm or by visual observation of an increase in RPV level indicated by the RPV level instrumentation. The immediate operator action is to reduce feedwater flow until normal level is restored. Follow-up actions include closing of the Main Steam Isolation Valves (MSIVs) and the primary containment isolation valves for the High Pressure Coolant Injection (HPCI) and Reactor Core Isolation Cooling (RCIC) systems before the RPV water level reaches the level of the steam lines.

Procedure OT-110 follow-up actions were revised to provide additional guidance in the following areas.

- o Terminating condensate injection.
- o Terminating Control Rod Drive (CRD) injection.
- o Reducing RPV water inventory with Main Turbine Bypass Valve or Safety Relief Valves (SRVs) operation to avoid flooding the Main Steam Lines.
- o Draining Main Steam lines via steam line drains to the condenser.
- o SRV operation with Main Steam lines flooded.
- o Incorporation of a reactor pressure and temperature diagram for Permissible SRV Discharge of Water (Procedure OT-110 BASES only).

Licensed operator training on the revisions to Procedure OT-110 are being conducted via on-shift notifications and will be incorporated into the Licensed Operator Requalification (LOR) Program.

Based on these actions, existing operating procedures and operator training are sufficient to ensure that the operators can mitigate RPV overfill events.