UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

May 1, 1992

Docket Nos.: 50-254
and 50-265

Commonwealth Edison Company
ATTN: Mr. Cordell Reed
Senior Vice President
1400 Opus Place - Suite 300
Downers Grove, Illinois 60515

Dear Mr. Reed:

SUBJECT: SERVICE WATER SYSTEM OPERATIONAL PERFORMANCE INSPECTION
(50-254/92-201; 50-265/92-201)

I have enclosed the report of the service water system operational performance inspection (SWSOPI) conducted by the Special Inspection Branch of the U.S. Nuclear Regulatory Commission (NRC) from March 2 through 20, 1992. At the exit meeting on March 20, 1992, the inspection team discussed its findings with you and members of your staff.

The inspection team assessed the operational performance of the service water system (SWS). In particular, the team reviewed in detail the design, maintenance, operation, surveillance and testing of the SWS. The team also assessed the planned or completed actions for Quad Cities in response to Generic Letter 89-13, "Service Water System Problems Affecting Safety-Related Equipment," issued on July 18, 1989.

The team found that there was a reduced margin of safety for the diesel generator cooling water (DGCW) system. Based on existing data, your staff could not conclusively demonstrate that the Unit 1 and the shared (1/2) DGCW pumps were capable of performing their required safety function in the existing Unit 1 flow configuration. At the time of the inspection, we believed that the system would meet its operability requirements based on seasonally low river water temperature and high river water level. However, you did not provide calculations that assure system operability over the entire range of river water seasonal temperatures and levels. Several other items require prompt attention: completion of heat load calculations for the RHRSW/DGCW vaults and applicable ECCS pump rooms; environmental qualification of the RHR heat exchanger discharge valves; requalification of equipment to 120°F in applicable areas and verification of cooling water pump capability to deliver sustained high flows. Please inform us when each of these items will be complete and available for inspection.

The team determined that the lack of adequately staffed and experienced technical departments resulted in insufficient technical support. This contributed to significant weaknesses in your ability to identify, evaluate and correct potential safety issues. Some examples were reduced flow to

Unit 1 emergency core cooling system pump rooms; partial flow blockage in residual heat removal (RHR) heat exchanger room coolers; single-failure vulnerability due to check valve failing to close; and reliance on non-environmentally qualified valves to control RHR heat exchanger flow. Weaknesses in technical support were also evident in the poor quality of engineering documents (such as calculations), and inadequate evaluation of the results of contractor generated documents and self-assessment reports.

Your implementation of the Generic Letter (GL) 89-13 actions was not fully satisfactory. While several of your initiatives such as development of an implementation plan and completion of a design review report were positive, significant work is needed in response to required actions of the GL, particularly for Actions III and IV.

With regard to the service water system, the team noted strengths in operations and maintenance and the training programs for both areas.

The deficiencies described in the enclosed inspection report will be reviewed by the Region III office for possible enforcement action. In accordance with 10 CFR 2.790 of the Commission's regulations, a copy of this letter and its enclosures will be placed in the NRC Public Document Room.

No response is required for this letter. Should you have any questions concerning this inspection, we will be pleased to discuss them with you. Contact the Team Leader, Peter Koltay, or me at (301) 504-2977 or (301) 504-1354, respectively.

Sincerely,

Bruce A. Boger, Director
Division of Reactor Projects, III/IV/V
Office of Nuclear Reactor Regulation

Enclosure:
Inspection Report 50-254/92-201;
50-265/92-201

cc w/encl.: See next page

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ORIGINAL SIGNED BY

Bruce A. Boger, Director
Division of Reactor Projects, III/IV/V
Office of Nuclear Reactor Regulation

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Inspection Report 50-254/92-201;
50-265/92-201

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