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ESK-97-163

August 11, 1997

U. S. Nuclear Regulatory Commission Washington, D. C. 20555

Attention:

Document Control Desk

Subject:

Quad Cities Station Units 1 and 2:

NRC Docket Numbers 50-254 and 50-265; NRC Inspection Report Numbers 50-254/97008

and 50-265/97008

Reference:

G. E. Grant letter to E. S. Kraft, Jr. dated July 11, 1997

Enclosed is Commonwealth Edison's (ComEd's) responses to two Notices of Violation (NOV) transmitted with the referenced letter. The first violation concerned a failure to include appropriate acceptance criteria in station procedures. The second violation concerned a condition adverse to quality that was not promptly identified and corrected.

This letter contains the following new commitments:

- The Zebra Mussel Team has recommended the fire pump suction strainers be coated with a copper based marine anti-fouling paint that has been successful in retarding zebra mussel growth and accumulation. The station has recently received approval from the Illinois Environmental Protection Agency to allow for the installation of strainers with the anti-fouling paint and installation is being pursued. (NTS# 2541009700805.01)
- A predefine will be created for the inspection of the fire pump suction strainers on a quarterly basis during zebra mussel spawning season. (NTS# 2541009700805.02)

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STATEMENT OF VIOLATION (NRC IR 97-008-04):

NOTICE OF VIOLATION

Title 10CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," requires, in part, that activities affecting quality be prescribed by documented procedures of a type appropriate to the circumstances and include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished.

Contrary to the above:

- a. The inspectors determined that Quad Cities Operating Surveillance Procedure 6600-02, Revision 9, "Diesel Generator Air Compressor Operability," was not appropriate to ensure that the check valves on the emergency diesel generator air receiver tanks seal in the closed direction.
- b. The inspectors determined that Quad Cities Abnormal Operating Procedure (QCOA) 2300-04, Revision 6, "HPCI (High Pressure Coolant Injection) System Auto Trip," was inadequate in that the procedure did not direct operators to use QCOA 2300-08, Revision 4, "Turning Gear Failure to Start on a Coast Down," in the event of failure of the HPCI turning gear to engage upon shutdown.

This is a Severity Level IV Violation (Supplement . (50-254; 265/97008-04)

REASON FOR VIOLATION:

ComEd acknowledges this violation.

For example a:

The test methodology in the procedure allowed for the potential of pressure equalization between the air receiver banks prior to reaching the failure threshold for the check valves. This condition was not identified during the generation or review of the procedure. In addition, subsequent monthly testing did not identify the potential condition since the check valves for the respective Diesel Generators did not leak sufficiently for pressure equalization to occur.

For example b:

QCOA 2300-04, Revision 6, did not include a step to instruct the operator no reference to QCOA 2300-08. This omission in QCOA 2300-04 was not identified during the generation or review of the procedure.

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ACTIONS TAKEN:

For example a:

PIF Q1997-02651 was written upon discovery and an Issue Screening was performed that concluded the Diesel Generator Air Start system was operable.

Procedure QCOS 6600-02 was revised (Revision 10) and became effective on June 27, 1997. The procedure now contains direction to reduce the air pressure of the bank of receivers being tested (i.e. A&B or C&D) to approximately 210 psig while the opposite bank is left at normal operating pressure (i.e. 230 to 250 psig). If pressure equalization occurs between the banks of air receivers (after five minutes), then actions are initiated to repair the faulty check valve.

The Diesel Generator Air receiver tank check valves have been tested using the new procedure (QCOS 6600-02, Revision 10) and were verified to function properly.

The testing method was reviewed by the In-Service Testing (IST) Coordinator and it was determined that the test method was unique to the Diesel Generator Air Start check valves. Other IST check valve closure tests typically vent the upstream side of the check valve through a test tap to the atmosphere. QCOS 6600-02 was the only identified test where the upstream side of the check valve is vented into another pressure volume.

For example b:

Procedure QCOA 2300-04 was revised (Revision 7) and became effective on May 29, 1997. The procedure now contains direction stating that if the HPCI turbine trips, and is not required for operation, to verify the HPCI turbine goes on the turning gear and if it does not to refer to procedure QCOA 2300-08.

ACTIONS TO PREVENT FURTHER OCCURRENCE:

There are no further actions required for this violation.

DATE WHEN FULL COMPLIANCE WILL BE MET

For example a: Full compliance was met on June 27, 1997 when Revision 10 of

QCOS 6600-02 became effective.

For example b: Full compliance was met on May 29, 1997 when Revision 7 of

QCOS 2300-04 became effective.

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STATEMENT OF VIOLATION (NRC IR 50-254/97008-05):

NOTICE OF VIOLATION

Title 10CFR 50, Appendix B, Criterion XVI, "Corrective Action," requires, in part, "Measures shall be established to assure that conditions adverse to quality are promptly identified and corrected."

Contrary to the above, from April 4, 1995 until August 1996, a condition adverse to quality was not promptly identified and corrected as the corrective actions taken to address the presence of zebra mussels in the intake structure were not effective in preventing the diesel driven fire pumps from becoming inoperable.

This is a Severity Level IV Violation (Supplement I). (50-254;265/97008-05)

REASONS FOR THE VIOLATION:

ComEd acknowledges the violation. The reason for the violation was the inadequate inspection frequency of the Circulating Water intake bays and Diesel Fire Pump suction strainers. The inspection of the intake bays which was originally scheduled to be performed during the Unit 1 refuel outage in the spring of 1996 was rescheduled for completion later in the year when the Units were on-line.

CORRECTIVE ACTIONS TAKEN:

- The fire pump suction strainers were immediately cleaned and returned to an operable status.
 Mechanical Maintenance Preventive Maintenance Surveillances QCMPM 4400-11.
 "RHRSW Bay Inspection," and QCMPM 4400-12, "CW Intake Bay Inspection," were performed to inspect the intake structures and remove debris.
- A Zebra Mussel Team has been formed under the Engaging the Work Force Process. The Zebra Mussel Team was formally chartered in December, 1996 and consists of representatives from Maintenance, Operations, Chemistry, Engineering and Environmental Services. The team charter calls for the team to: "Evaluate past, present, and needed future actions to mitigate the adverse impact that Zebra Mussels could create on plant performance and safety and propose additional corrective actions, then implement those actions."

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CORRECTIVE ACTIONS TO PREVENT FURTHER OCCURRENCES:

- 1. The Zebra Mussel Team has recommended the fire pump suction strainers be coated with a copper based marine anti-fouling paint that has been successful in retarding zebra mussel growth and accumulation. The station has recently received approval from the Illinois Environmental Protection Agency to allow for the installation of strainers with the anti-fouling paint and in the last is being pursued. (NTS# 2541009700805.01)
- 2. A predefine will be created for use inspection of the fire pump suction strainers on a quarterly basis during zebra mussel spawning season. (NTS# 2541009700805.02)

DATE WHEN FULL COMPLIANCE WILL BE MET:

Full compliance was met with the cleaning of the fire pump suction strainers on August 9, 1996.