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February 23, 1993

Dr. Thomas E. Murley, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington D.C. 20555

ATTN: Document Control Desk

Subject: Quad Cities Station Unit 1
Completion of Commitments Associated
with Unit 1 Cycle 12 Refuel Outage (Q1R12)
NRC Docket No. 50-254

References: As listed in Attachment B

Dr. Murley,

On December 14, 1992, Commonwealth Edison (CECo) returned Quad Cities Station Unit 1 to service following the unit's twelfth refuel outage (Q1R12). In the course of that outage, CECO completed actions related to various NRC commitments. This letter provides a summary of the applicable commitments and their status following the refuel outage.

In References (a) and (b), CECO provided a response to Generic Letter (GL) 89-13 "Service Water Problems Affecting Safety Related Equipment". This response included appropriate commitments and an implementation schedule for the commitments for each CECO nuclear station. References (c) and (d) provided the status of the Quad Cities Station GL 89-13 commitments following the eleventh refuel outage on Unit 1 (Q1R11) and Unit 2 (Q2R11). An itemized status of all GL 89-13 commitments for Quad Cities Unit 1 is described in Attachment A.

In Reference (e), CECO submitted a proposed schedule for completion of modifications in response to GL 84-23 "Reactor Vessel Water Level Instrumentation in BWRs". This proposed schedule was updated in Reference (f). The required modifications for Unit 1 were completed during Q1R12.

In response to Local Leak Rate Testing (LLRT) concerns, CECO submitted a proposed modification and associated Technical Specification for the High Pressure Coolant Injection (HPCI) system (Reference (g)). The modification added new vacuum breakers and a steam exhaust line sparger to the HPCI system. These vacuum breakers established a testable primary containment air boundary, and established a water seal between primary containment and the HPCI turbine exhaust check valve. The modification was planned for installation during Q1R12. In Reference (h), CECO indicated that installation of the HPCI steam exhaust line sparger would be delayed until Q1R13. The NRC issued Amendment 139 to Facility Operating License DPR-29 (Unit 1) on November 4, 1992. CECO completed the modification (with the approved exception of the HPCI steam exhaust line sparger), and implemented Amendment 139 prior to unit start-up following Q1R12.

In Reference (i), CECO provided a response to GL 89-16 "Installation of a Hardened Wetwell Vent". This response stated that CECO would install a Hardened Wetwell Vent on Quad Cities Units 1 and 2 by January 1, 1993. CECO installed the Unit 1 Hardened Wetwell Vent system during Q1P12 and the Unit 2 system during Q2R11 (May 1992).

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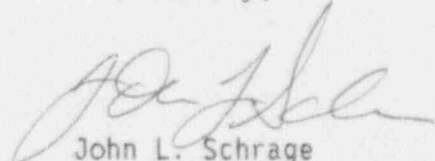
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In Reference (j), CECO presented an operability evaluation for the 250 vDC batteries at Quad Cities Station. This was based upon service testing results at Dresden Station. This operability evaluation described testing requirements and future enhancements to the 250 vDC batteries at Quad Cities. The NRC reviewed and approved the operability evaluation, including testing requirements and future enhancements in Reference (k). In the reference (l) teleconferences, CECO and the NRC discussed a proposed revision to the Quad Cities Unit 1 250 vDC battery discharge test and a Design Basis Accident load profile test (as committed to in Reference (j)). The NRC provided verbal approval for the proposed revision to the test requirement during the referenced teleconferences. During QIR12, CECO successfully performed the revised 250 vDC battery discharge test at Quad Cities Station. In addition, CECO completed the modifications described in Reference (j) for Unit 1. These modifications included: (1) the installation of a non-Safety Related 250 vDC battery (including an associated battery charger, motor control center, cables and feeder breakers); and (2) the realignment of the power feed for the RHR-Shutdown Cooling valve (1-1001-47) to increase the available margin for the battery.

In Reference (m), the NRC issued a Safety Evaluation for the Detailed Control Room Design Review (DCRDR) efforts at Quad Cities Station. This Safety Evaluation described planned DCRDR actions and the implementation schedule for these actions. CECO requested schedular relief from the DCRDR commitments at Quad Cities Station in References (n) and (o). This relief was granted by the NRC in Reference (p). During the implementation of the DCRDR modification to the Quad Cities Unit 1 control room annunciator system, CECO identified a potential enhancement to the modification. This enhancement added an annunciator bypass switch to the annunciator system. The key-lock bypass switch would allow the Shift Engineer (SE) or Shift Control Room Engineer (SCRE) to temporarily bypass the annunciators. This key-lock switch would be used when the SE or SCRE determines that the noise level, due to the number and duration of auditory alarms during a plant transient, significantly compromises verbal communication. This enhancement was discussed with the NRC, and verbal concurrence was obtained, during the Reference (q) teleconferences. The DCRDR commitments for Quad Cities Station Unit 1 which were described in Reference (m), and discussed in the Reference (q) teleconferences, have been completed.

If there are any questions or comments on this information, please contact John L. Schrage at 708-515-7283.

Sincerely,



John L. Schrage
Nuclear Licensing Administrator

Attachment

cc: A. Bert Davis, Regional Administrator - RIII
C. Patel, Project Manager - NRR
T.E. Taylor, Senior Resident Inspector - Quad Cities
Office of Nuclear Safety - IDNS

ATTACHMENT A

STATUS OF COMMITMENTS ASSOCIATED WITH GENERIC LETTER 89-13

GL 89-13 Item I:

Implement and maintain an ongoing program of surveillance and control techniques to significantly reduce the incidence of flow blockage problems as a result of biofouling for open cycle service water systems.

CECo Actions

References (c) and (d) addressed complete implementation of Item I of GL89-13 with the exception of Part B, continuous chlorination.

A biocide modification common to both Unit 1 and Unit 2 was originally scheduled to be installed prior to startup following Q2R11. The modification consists of a skid which will inject sodium hypochlorite and sodium bromide into the RHRSW pump suction pipes whenever the RHRSW or Diesel Generator Cooling Water (DGCW) pumps are in operation. The installation was completed to the point of post-construction testing at the time of Unit 2 start-up. However, this testing identified electrical wiring problems in the control logic circuit. CECO discussed this information prior to Unit start-up with the NRC in a teleconference on May 6, 1992. During that teleconference, CECO committed to provide periodic status updates to the Senior Resident Inspector, and notify the Project Manager when these actions have been completed.

GL 89-13 ITEM II:

Implement a heat exchanger test program for the safety-related open cycle system heat exchangers. Routine maintenance on the heat exchangers may be used in lieu of testing. Heat exchanger performance will be trended and monitored for the next three refuel outages in order to determine an optimal test or inspection frequency.

CECo Actions

All B-loop heat exchangers that were due to be tested or inspected during Q1R12, as described in Reference (a), were satisfactorily tested, or inspected and cleaned. A thermal performance test of the Unit One B-loop RHR heat exchanger was performed to determine ability to perform design function, testing results are described in detail in Licensee Event Report (LER) 254-92-023. Evaluation of test methodology determined that single pump testing is appropriate for monitoring RHR heat exchanger performance.

A review of the design requirements for the RHR seal and oil coolers determined that these heat exchangers (1(2)-1001-145A,B,C,D and 1(2)-1002A,B,C,D) do not provide a safety related function. These coolers are only required for Shutdown Cooling operation, a non-safety related mode of the RHR system. These heat exchangers will be controlled through routine maintenance and be removed from the GL 89-13 program.

ATTACHMENT A
(continued)

GL 89-13 ITEM III:

Identify significant degradation of the safety-related service water system piping due to high flow erosion and low flow corrosion.

CECo Actions

References (c) and (d) addressed complete implementation of Item III with the exception of installation of corrosion coupons on Unit 1. These coupons were installed prior to start-up from Q1R12 (as committed to in Reference (a)).

GL 89-13 ITEM IV:

Perform a design analysis of the safety-related open-cycle and closed-cycle service water systems.

CECo Actions

This design review was previously completed (Reference (c)). Corrective actions are in progress pertaining to several minor issues identified during the design review. Further evaluation of the remaining issues is underway to determine the most appropriate course of action.

ATTACHMENT B

REFERENCES

- (a) M.H. Richter letter to the NRC dated January 29, 1990.
- (b) D. Taylor letter to the NRC dated November 14, 1990.
- (c) D. Taylor letter to the NRC dated June 28, 1991.
- (d) J.L. Schrage letter to T.E. Murley dated July 22, 1992.
- (e) R. Stols letter to T.E. Murley dated August 27, 1990.
- (f) J.L. Schrage letter to T.E. Murley dated January 10, 1992.
- (g) J.L. Schrage letter to T.E. Murley dated July 6, 1992.
- (h) J.L. Schrage letter to T.E. Murley dated August 17, 1992.
- (i) M.H. Richter letter to the NRC dated October 30, 1989.
- (j) J.L. Schrage letter to T.E. Murley dated December 20, 1991.
- (k) L.N. Olshan letter to T.J. Kovach dated January 21, 1992.
- (l) Teleconferences between NRC (NRR and Region III; L. Olshan, et al) and CEC (J. Schrage, et al) on October 29, 1992.
- (m) T.M. Ross letter to T.J. Kovach dated April 19, 1989.
- (n) J.A. Silady letter to T.E. Murley dated November 17, 1989.
- (o) R. Stols letter to T.E. Murley dated October 26, 1990.
- (p) L.N. Olshan letter to T.J. Kovach dated November 13, 1990.
- (q) Teleconferences between NRC (C. Patel, et al) and CEC (J. Schrage, et al) on December 3, 1992 and February 11, 1993.