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December 22, 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: Dresden Nuclear Power Station Units 2 and 3
Quad Cities Nuclear Power Station Units 1 and 2
Resolution of Modifications Related to Reactor Vessel Water Level
Instrumentation, NRC Bulletin (IEB) 93-03
NRC Docket Nos. 50-237/249 and 50-254/265

- References:
- (a) J. Stang letter to D. Farrar, dated November 26, 1993.
 - (b) Meeting between Commonwealth Edison (CECo) and the U.S. NRC, dated November 16, 1993.
 - (c) P. Piet letter to T. Murley, dated October 29, 1993.

Dr. Murley:

The purpose of this letter is to respond to the NRC Staff's request (Reference (a)) to provide CECo's position on the modifications at Dresden and Quad Cities Station necessary to meet the requirements of NRC Bulletin 93-03.

In Reference (c), CECo submitted a proposed license amendment for NRC review and approval of two (2) unreviewed safety questions (USQs). These USQs were related to proposed modifications at Dresden Units 2 and 3, and Quad Cities Units 1 and 2, which mitigate concerns addressed in NRC Bulletin 93-03, "Resolution of Issues Related to Reactor Vessel Water Level Instrumentation in BWRs." As discussed during the Reference (b) meeting, the modifications involve connecting the control rod drive (CRD) water header into the existing reactor vessel water level instrumentation reference legs. This connection provides the capability to provide a continuous backfill of deaerated water through the reactor vessel level instrument reference leg to prevent the accumulation of dissolved gases.

Subsequent to receipt and review of the Reference (a) submittal and Information Notice 93-89, "Potential Problems with BWR Level Instrumentation Backfill Modifications," CECo elected to develop and install an alternative design which eliminates reliance upon administrative controls to address the concerns discussed in NRC Bulletin 93-03 which is

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patterned after a similar design installed at CECo's LaSalle County Station Unit 2 during its recent refueling outage (L2R05). As such, the proposed modification will eliminate the need for NRC review and approval of the USQ discussed in Reference (c) that increases the probability of a previously evaluated accident.

CECo will make a best faith effort to implement the proposed modifications at Dresden and Quad Cities Stations according to the following schedule. At this time however, CECo has not completed detailed engineering and procurement activities necessary to implement the modifications. As such, the proposed schedule does not account for potential and unavoidable engineering and/or procurement constraints which could significantly delay implementation. Upon discovery of any constraint which could impact the implementation schedule of the proposed modification, CECo will promptly provide this information to the NRC (Region III and the NRR Project Manager).

For Quad Cities Unit 1:

CECo will fully install a backfill modification during the 13th refuel outage (Q1R13 beginning in March 1994).

For Quad Cities Unit 2:

CECo will fully install the revised backfill modification during the 13th refueling outage (Q2R13) beginning in September 1994. Due to the extended period of time until the start of this outage, Quad Cities Station will complete the installation of an interim modification on Unit 2. This modification was initially described during the Reference (b) meeting and in the Reference (c) submittal. The interim modification satisfies the concerns addressed in IEB 93-03, but relies upon administrative controls until the upcoming refueling outage (Q2R13). However, the administrative controls associated with the modification have been revised to include the installation of a welded "collar lock" on the root valve stem, which will be installed prior to declaring the backfill modification operable. This collar lock prevents the valve from closing, and removal of the collar lock would require mechanical removal in accordance with the approved station work control procedure. In addition to the collar lock, Quad Cities will utilize a valve specific lock/chain and install a physical cage around the root valve in order to further reduce the potential for inadvertent closure during the operating cycle.

This interim modification requires NRC Staff approval of the Reference (c) USQ prior to declaring the system operable as outlined in Reference (a). This modification is being installed during the current maintenance outage scheduled for startup by January 15, 1994. Therefore, CECo requests NRC Staff approval of our interim modification (USQs) to support operation of that modification upon startup from the current maintenance outage.

For Dresden Unit 2:

CECo will fully install the backfill modification at the next refueling outage or during the first Cold Shutdown beginning after the completion of the thirteenth refuel outage on Unit 3 (currently scheduled for completion on June 12, 1994) or June 30, 1994, whichever comes first. This proposed schedule will eliminate the negative impact that would likely occur if a forced outage on Unit 2, concurrent with the Unit 3 refuel outage, is extended to complete the Unit 2 backfill modification.

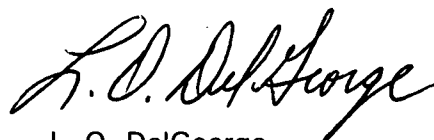
For Dresden Unit 3:

CECo will fully install the backfill modification during the 13th refuel outage (D3R13 beginning in March 1994).

As previously stated, the modifications to meet NRC Bulletin 93-03 will not be made operable at any of CECo's plants until the NRC Staff has completed its evaluation of any associated USQs/License Amendments, unless otherwise notified by the NRC Staff. If CECo discovers any problems involving reactor vessel level, which are directly attributable to the backfill modification, Dresden and/or Quad Cities will disable the backfill system and immediately notify the NRC Staff to discuss the potential concern and the resolution of the concern.

If there are any questions regarding this matter, please contact this office.

Sincerely,



L. O. DelGeorge
Vice President

cc: J. B. Martin, Regional Administrator - RIII
J. F. Stang, Project Manager - NRR
C. P. Patel, Project Manager - NRR
M. N. Leach, Senior Resident Inspector - Dresden
T. E. Taylor, Senior Resident Inspector - Quad Cities
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