Commonwealth Edison
1400 Opus Place
Downers Grove, Illinois 60515

September 28, 1993

U.S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Washington, D.C. 20555

Attention: Document Control Desk

Subject: Response to Generic Letter 89-10, Supplement 5, "Inaccuracy of Motor-Operated Valve Diagnostic Equipment," dated June 28, 1993.

Byron Station Units 1 and 2,
(NRC Docket Numbers 50-454 and 50-455)

Braidwood Station Units 1 and 2
(NRC Docket Numbers 50-456 and 50-457)

Zion Station Units 1 and 2,
(NRC Docket Numbers 50-295 and 50-304)

Dresden Station Units 2 and 3,
(NRC Dockets Numbers 50-237 and 50-249)

Quad Cities Station Units 1 and 2,
(NRC Docket Numbers 50-254 and 50-265)

LaSalle County Station Units 1 and 2,
(NRC Dockets 50-373 and 50-374)

The Commonwealth Edison (CECo) response to the subject Generic Letter is contained in the attachment to this letter. If there are any questions or comments, please contact this office.

Sincerely,

David J. Chrzanowski
Generic Issues Administrator
Nuclear Regulatory Services

Attachments: Generic Letter 89-10, Supplement 5 Response

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ATTACHMENT

Generic Letter 89-10, Supplement 5 Response

1. On the basis of the new information on MOV diagnostic equipment inaccuracy discussed in this letter, licensees are requested to reexamine their MOV programs and to identify measures taken or planned to account for uncertainties in properly setting valve operating thrust to ensure operability. Licensees should not limit their evaluation to only the specific examples of increased inaccuracy of MOV diagnostic equipment provided in the Discussion section of this GL supplement, but should consider any information reasonably available to them.

CECo Response:

Commonwealth Edison utilizes the Liberty Technologies "VOTES" system to determine correct control switch setting for rising stem motor operated valves at each of its operating nuclear units. At the current time, CECo is utilizing the Liberty VOTES Torque Cartridge (VTC) on a limited basis to determine correct control switch settings for motor operated butterfly valves. However, CECo is currently investigating the feasibility and acceptability of alternative diagnostic systems and options for use on butterfly valves.

2. Licenses are requested to evaluate the schedule necessary (a) to consider the new information on MOV diagnostic equipment inaccuracy and (b) to response to that information.

CECo Response:

As a result of the October 2, 1992 Liberty Technologies 10 CFR Part 21 Notification for the VOTES diagnostic equipment, CECo initiated an internal operability assessment to review previous motor operated valve diagnostic traces to determine applicability and impact on the in-service equipment. This operability assessment concluded that their were no immediate operability concerns but that additional actions needed to be performed to fully disposition the issue. At the time of the VOTES Part 21 notification from Liberty Technologies, CECo was informed that a revised version of the VOTES diagnostic software was being issued in the near future that would correct the identified deficiency in the old software. CECo's corporate engineering organization immediately provided guidance to each of CECo's nuclear stations to assure that any subsequent VOTES testing would be performed with consideration of the issues involved with the Part 21. This was done as an interim corrective action until the "corrected" VOTES software became available.

As stated previously, the operability assessment that was performed for the VOTES Part 21 required additional actions to fully disposition. A detailed

action plan was developed to review and remark the previous VOTES static diagnostic tests, incorporating the equipment accuracy information from Liberty's error analysis. CECo obtained Version 2.3 of the VOTES software and released it for use in mid December, 1992. An assessment was performed based on safety significance. The population of MOVs to be reevaluated was prioritized accordingly. The reevaluation consisted of 2 parts; the first part being review and remarking of the VOTES tests to compare the test results to the known MOV limitations, the second part being any follow-up actions required as a result of the first part such as issuing revised target thrust windows, recommendations to reset torque switches and retest valves, revised seismic, structural and actuator thrust/torque analyses, and motor gearing capacity evaluations.

In late March, 1993, CECo approved VOTES V2.3.1 for use which was a minor update to VOTES V2.3. At this time, CECo revised the action plan contained in the original operability assessment. The revised action plan was more detailed and to included actions to update al previous CECo VOTES traces, where possible, to the latest version of the VOTES software. This was done to not only disposition the VOTES Part 21, but also to provide a consistent database of MOV test data with which to perform data reduction activities for CECo's overall GL 89-10 Program.

430 MOVs statically tested prior to the late 1992-early 1993 outages were in the population of valves impacted by the VOTES Part 21. As of 7/19/93, all of the 430 MOVs had their initial review and remarking performed with the new VOTES software with the exception of a small number of valves for which CECo is awaiting further information from Liberty. Of the population of impacted valves, approximately 50% have had or will have further disposition, including the actions noted previously. Some of these disposition actions will require up to 2 refueling cycles to complete. To date, no MOVs have been determined to be inoperable due to the VOTES Part 21. CECo is currently in the process of remarking and evaluating the prior dP tests that were performed using previous versions of the VOTES software. CECo expects that this evaluation will be completed for all of CECo's stations by the end of 1993. Note that any necessary follow-up disposition corrective actions may require up to 2 refueling cycle s to complete.

As further corrective actions, CECo has revised the MOV Rising Stem Data Sheets that are used for CECo's GL 89-10 Program. Among other things, the revision was made to better account for various equipment repeatability concerns and potential measurement errors. The Rising Stem Data Sheet is used by CECo as the method to maintain setpoint control of the MOVs. The revision will start to be implemented during the Fall, 1993, with the goal of eventually updating all GL 89-10 MOVs with the new data sheets.