Commonwealth Edison
1400 Opus Place
Downers Grove, Illinois 60515

July 15, 1992

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

Attn: Document Control Desk

Subject: Dresden Station Units 2 and 3
Quad Cities Station Units 1 and 2
Additional Information Pertaining to The
Resolution of Single Failure Vulnerabilities
Associated with Combustible Gas Control
NRC Docket Nos. 50-237/50-249 & 50-254/50-265

References: (a) A.W. Dromerick Summary of December 6, 1991 Meeting between General Public Utilities Nuclear and NRR, dated December 11, 1991.

(b) Conference Call between NRR (R. Barrett, et al) and Commonwealth Edison Company (J. Schrage, et al) on December 6, 1991.

(c) J.L. Schrage to T.E. Murley letter dated March 6, 1992.

(d) Conference Call between Commonwealth Edison (J. Schrage) and NRR (L. Olshan) on May 20, 1992.

Dear Dr. Murley:

During the December 6, 1991 meeting between General Public Utilities Nuclear (GPUN) and NRR (Reference(a)), NRR provided guidance on verifying the ability of normal containment inerting systems to function under accident conditions in order to meet 10 CFR 50.44 requirements, including the associated General Design Criteria (GDC 41, 42 and 43). This guidance instructed GPUN to identify the single failure vulnerabilities of the normal containment inerting systems; discuss the actions necessary to correct and resolve these vulnerabilities through pre-planned repair procedures; and justify the acceptability of these procedures given the time frame necessary to implement the procedures.

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As a result of the meeting, which was attended by a Commonwealth Edison Company (CECo) representative, NRR and CECo conducted a teleconference (Reference (b)) to evaluate the guidance as it related to the current 10 CFR 50.44 compliance status at Dresden and Quad Cities Stations. At that time, CECo indicated that single failure vulnerabilities had been identified for the normal containment inerting system for both Dresden and Quad Cities Stations. Reference (c) transmitted CECo's proposed method to correct and resolve these vulnerabilities through pre-planned repair procedures, and justification for these procedures, given the time frame necessary for implementation.

In the Reference (d) teleconference, NRR presented additional questions pertaining to the proposed method to correct and resolve the single failure vulnerabilities. These questions and the associated responses are described in the Attachment. If there are any further questions or comments, please contact John L. Schrage at 708-515-7283.

Sincerely,

John L. Schrage
Nuclear Licensing Administrator

Attachment

cc: A. Bert Davis, Regional Administrator-RIII
R.J. Barrett, Director-NRR
B.L. Siegel, Project Manager-NRR
L.N. Olshan, Project Manager-NRR
T.E. Taylor, Senior Resident Inspector-Quad Cities
W.E. Rogers, Senior Resident Inspector-Dresden

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ATTACHMENT

ADDITIONAL NRR QUESTIONS PERTAINING TO COMBUSTIBLE GAS CONTROL

1. How does CECo demonstrate the operability of the Nitrogen Inerting and Make-up System?

   The Nitrogen Make-up system is used continuously during reactor power operations to preserve the inert containment atmosphere required by Technical Specifications. The pressure control station and associated instrumentation are the normally operating components of this system. The normal flow rate for the makeup system is less than 1 SCFM. While this is somewhat less than the initial 29 SCFM and 5.2 SCFM steady state flow rate (at 32 days) predicted for post-LOCA Hydrogen dilution, the lines have been judged adequate to handle flows as high as 65 SCFM.

   The Nitrogen Inerting system is used to establish an inert atmosphere following outages in which the drywell has been deinerted. The normal flow rate for inerting flow is 2500 SCFM. This figure greatly exceeds the initial 29 SCFM and steady state 5.2 SCFM flow rate (at 32 days) predicted for post-LOCA Hydrogen dilution. This occurs at least once per operating cycle and some times more frequently.

   The normal operation of the Make-up and Inerting systems closely resembles the proposed post-LOCA operation of these same systems, thus CECo is confident that normal operation of these systems is indicative of post-LOCA responsiveness.

2. Are any valves or components required following a LOCA (other than for Combustible Gas Control)?

   There are no components required for post-LOCA response other than to maintain containment isolation. The Primary Containment Isolation valves are:

AO-1601-21	AO-1061-60
AO-1601-22	AO-1601-61
AO-1601-55	AO-1601-62
AO-1601-56	AO-1601-63
MO-1601-57	AO-1601-23
AO-1601-58	AO-1601-24
AO-1601-59	

   These valves are closed by the primary containment isolation system upon receipt of a Group II containment isolation signal (i.e. low reactor water level or high drywell pressure). These valves are currently governed by Technical Specifications for operability.

3. If so, what procedural/administrative controls are (would be) used to verify operability?

   Since operability is maintained continuously to enable the containment atmosphere to comply with Station Technical Specifications, no further operability requirements are needed for the Nitrogen Inerting and Make-up systems.

4. What limitations will be implemented if the required (other than for Combustible Gas Control) valves or components are inoperable?

   Existing Technical Specifications require an inert containment for operation. A failure to maintain an inert atmosphere caused by failures in the inerting and makeup systems would require a plant mode change to Startup/Hot Standby. Therefore, any additional limitations during power operation are not necessary.

5. Are critical components of the system part of a PM Program? If no, will the components be added to a PM Program?

   Critical components consisting of the containment isolation valves and instruments are currently covered under the In-Service Testing (IST) Program, the 10 CFR 50 Appendix J Testing Program, and surveillance programs.

   Upon approval of the proposed CECo plan to address the single failure vulnerabilities, CECo will review and evaluate the remaining critical components for inclusion into existing PM and surveillance programs.