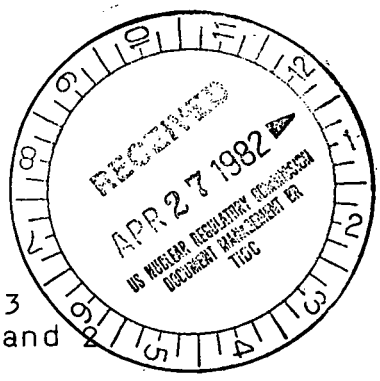
Commonwealth Edison
One First National Plaza, Chicago, Illinois
Address Reply to: Post Office Box 767
Chicago, Illinois 60690

April 20, 1982




Mr. Darrell G. Eisenhut, Director
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Dresden Station Units 2 and 3
Quad Cities Station Units 1 and 2
NUREG 0737 Item II.B.1
Additional Information
NRC Docket Nos. 50-237/249 and
50-254/265

References (a): L. DelGeorge letter to D. G. Eisenhut dated July 1, 1981.

(b): E. Swartz letter to D. G. Eisenhut dated January 8, 1982.

(c): D. Vassallo letter to L. DelGeorge dated February 8, 1982.

(d): D. M. Crutchfield letter to L. DelGeorge dated February 23, 1982.

Dear Mr. Eisenhut:

References (c) and (d) requested that the Commonwealth Edison Company provide, within sixty (60) days, additional information relating to NUREG 0737 Item II.B.1 for our Dresden and Quad Cities Stations.

The attachment to this letter provides the requested information concerning RCS high point vents.

To the best of my knowledge and belief the statements contained in the attachment are true and correct. In some respects these statements are not based upon my personal knowledge but upon information furnished by other Commonwealth Edison employees. Such information has been reviewed in accordance with Company practice and I believe it to be reliable.

Please address any questions that you or your staff may have concerning this matter to this office.

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One (1) signed original and fifty-nine (59) copies of this letter with attachments are provided for your use.

Very truly yours,

E. Douglas Swartz
Nuclear Licensing Administrator

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Attachments

cc: J. G. Keppler, Region III Inspector
Region III Inspector - Dresden
Region III Inspector - Quad Cities

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ATTACHMENT

COMMONWEALTH EDISON COMPANY

Dresden Station Units 2 and 3

Quad Cities Station Units 1 and 2

Additional information requested for NUREG 0737 Item II.B.1 concerning RCS High Point Vents

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Quad Cities Station Units 1 and 2
Dresden Station Units 2 and 3

1) The discharge piping of all ECCS systems at Quad Cities (LPCI mode of RHR, Core Spray and HPCI) and at Dresden (LPCI, Core Spray, and HPCI) are required by Technical Specifications to be filled and vented in order to be operable. Assurance that the LPCI and Core Spray systems are filled and vented is performed monthly prior to the performance of the monthly pump operability tests. Also, Technical Specifications require that following any period where LPCI or Core Spray have been out-of-service and drained for maintenance, the discharge piping of the system shall be vented from the high point. The HPCI System remains filled due to the adequacy of the head pressure supplied by the water in the Condensate Storage Tanks.

A Fill System is used to ensure that the LPCI and Core Spray pump discharge lines remain pressurized. Fill System pressures are continuously monitored to ensure this function is completed. An alarm is provided in the control room to inform operators of faulty system performance. Basically, the Fill System consists of a "jockey" pump which takes a suction from the suppression pool (via a Core Spray pump suction line) and is valved-in to the discharge lines of both Core Spray loops and LPCI. Should the "jockey" pump be inoperable, a backup fill system using condensate transfer water can be used. The vent pathway for Core Spray, LPCI, and HPCI is through vent valves, a sight-glass, and discharge to the Reactor Building Equipment Drain Tank.

2) As specified in Reference (a), the major modes for reactor venting are the Automatic Blowdown System and the HPCI System. Alternate paths which are available and would probably never be needed for venting (to prevent the postulated conditions) are considered strictly as backup for already adequate systems. The head vent valves fall into this category and are actually a backup to a backup.

The primary backup would be the continuous head vent path which discharges to the main steam lines and then out to the drywell through the relief valves. For large breaks which HPCI could not maintain water levels, ADS would be initiated opening the vent path. For small breaks, there will be no substantial hydrogen production and HPCI will adequately vent the noncondensibles. The head vent valves, then, supplement this continuous vent path function. They discharge to the drywell sumps and then to the drywell. Both means of venting while directing the hydrogen to the drywell would have an insignificant affect on drywell equipment considering the post LOCA drywell environment.

Finally, a single failure could prevent use of the vent path which utilizes the vent valves. The valves fail closed, thereby ensuring valve closure in the event of a single failure. Considering the above and because of the very low probability of the need for operation of the head vent valves, and the operators knowledge that these valves are avail- able for use, it is our judgment that no specific criteria for their use nor system changes are deemed necessary.

3) Our response to Item II.K.3.29 "Study to Demonstrate Performance of Isolation Condensers with Non-Condensibles" (Reference (b)) details our position on venting of the isolation condenser system and its applicability to the task addressing Reactor Coolant System Vents. It is our belief that this is still a valid position. Our response is restated here for your information.

"The Commonwealth Edison Company has reviewed the NRC Safety evaluations that we received for this item, D. M. Crutchfield letter to L. DelGeorge dated September 15, 1981, (Dresden Unit 2) and T. A. Ippolito letter to L. DelGeorge dated September 16, 1981, (Dresden Unit 3) and has the following comments:

We concur with the safety evaluation conclusion that, based on the existing design incorporating tube side vents and past operating experience, it is not necessary to demonstrate the adequate of the isolation condenser to operate with noncondensible gases present.

However, we do not agree with the statement made in each safety evaluation transmittal letter that these valves be considered part of Item II.B.1, Reactor Coolant System Vents. Our previous responses to this item (References (d) and (e)) indicated that venting which normally occurs during HPCI and/or ADS operation was sufficient and other vent paths are only considered as backup for these already adequate systems.

Additionally, we do not believe that use of the isolation condenser tube-side vents as reactor coolant system vents is prudent since the vents exhaust outside of the primary containment and containment isolation signals would have to be defeated to open the valves.

Finally, as stated in our previous response (Reference (e)), procedures specifically written to instruct reactor operators on using HPCI or ADS for venting purposes are not deemed necessary due to the inherent design of those systems. The existence of tube side vents on the isolation condenser has not altered this position, and our conclusion remains that no specific venting procedures are needed at this time.

Based on the foregoing discussion, we do not believe it is necessary or prudent to include the isolation condenser vents in Item II.B.1 and we do not intend to prepare specific venting procedures for operator use at this time."

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Commonwealth Edison
One First National Plaza, Chicago, Illinois
Address Reply to: Post Office Box 767
Chicago, Illinois 60690

April 19, 1982


Mr. Domenic B. Vassallo, Chief
Operating License Branch #2
Division of Licening
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Dresden Station Units 2 and 3
Quad Cities Station Units 1 & 2
Reactor Protection System (RPS)
Power Monitoring System Design
Modifications
NRC Docket Nos. 50-237, 50-249,
50-254 and 50-265

References (a): R. Janecek letter to T. A. Ippolito dated December 11, 1980.

(b): T. Rausch letter to T. A. Ippolito dated January 12, 1982.

(c): D. B. Vassallo letter to L. DelGeorge dated March 4, 1982.

Dear Mr. Vassallo:

In References (a) and (b), Commonwealth Edison provided design and schedule information concerning the subject modifications to the RPS power supplies at Dresden and Quad Cities Stations. During recent reviews of the electrical setpoints associated with this modification, we identified problems which will preclude our implementation of this modification at Dresden 3 in the current outage and will likely alter implementation schedules for the remaining units.

The specific problems which are likely to cause inadvertent scrams and degrade the reliability of our power system are outlined below:

1. The given undervoltage setting of the EPA does not take into account local motor starting. The voltage on the auxiliary power system can drop to 85% of the normal voltage (115 volts) during these starts. This voltage drop can last as long as 30 seconds. The EPA does not have this setting capability.

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2. The given overvoltage setting of the EPA does not take into account momentary voltage rises following system fault clearing or automatic load shedding. The voltage on the auxiliary power system can rise to 120% of the normal voltage (115 volts) for these system conditions.

3. The given underfrequency setting of the EPA does not take into account the 1% slip of the induction motor under normal load with normal system voltage. This setting does not take into account the 1% tolerance of the relay. Also, the setting does not take into account the increased slip of the induction motor under abnormally low system voltages that can occur during system disturbances. Taking into account the above factors, the setting of the underfrequency relay should be no greater than 55.8 Hertz. This setting will provide coordination with our automatic load shedding program. The EPA underfrequency relay does have this setting capability.

These problems, the potential impact on implementation schedules, and possible solutions were discussed with Messrs. J. Hegner, J. Van Vliet and I. Ahmed of the NRC staff in an April 12, 1982, conference call. We are currently reviewing our various alternatives for resolving these issues and will provide our solutions and revised implementation schedules by July, 1982. At that time we will also provide our response to the Reference (c) request for information concerning this subject.

Please address any questions you may have concerning this matter to this office.

One (1) signed original and fifty-nine (59) copies of this transmittal are provided for your use.

Very truly yours,

Thomas J. Rausch
Nuclear Licensing Adminstrator

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cc: Region III Inspector - Dresden
Region III Inspector - Quad Cities

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