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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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April 19, 1982

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 Administrator

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

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