November 2, 1990

Docket Nos. 50-237
and 50-249

Mr. Thomas J. Kovach
Nuclear Licensing Manager
Commonwealth Edison Company-Suite 300
OPUS West III
1400 OPUS Place
Downers Grove, Illinois 60515

Dear Mr. Kovach:

SUBJECT: CORRECTION TO BASES SECTION OF AMENDMENTS 113 AND 109
(TAC NOS. 74895 AND 74896)

Enclosed is amended Bases page B 3/4.4-6 for Dresden, Units 2 and 3, related to the ATWS Technical Specification amendments. The amended page corrects an inadvertent error in the first sentence of the second paragraph which should state that the required pumping rate is 40 gpm per pump and not that 3329 gallons per pump of at least 14 wt. percent solution will be inserted in less than 100 minutes.

Sincerely,

Original Signed By:

Byron L. Siegel, Project Manager
Project Directorate III-2
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation

Enclosures:
As stated

cc w/enclosures:
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cc:

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3.4 LIMITING CONDITION FOR OPERATION BASES

A. The design objective of the standby liquid control system is to provide the capability of bringing the reactor from full power to a cold, xenon-free shutdown assuming that none of the withdrawn control rods can be inserted. To meet this objective, the liquid control system is designed to inject a quantity of boron which produces a concentration of no less than 600 ppm of boron in the reactor core in less than 100 minutes. 600 ppm boron concentration in the reactor core is required to bring the reactor from full power to a 3% delta k or more subcritical condition considering the hot to cold reactivity swing and xenon poisoning. An additional margin of 25% boron is added to compensate for possible imperfect mixing of the chemical solution in the reactor water, making the total concentration 750 ppm of boron in the reactor core. A minimum quantity of 3329 gallons of solution having a 14 wt. percent sodium pentaborate concentration is required to meet this shutdown requirement.

For a required pumping rate of 40 gpm per pump, 3329 gallons of at least 14 wt. percent solution will be inserted in less than 100 minutes. This insertion rate of boron solution will override the rate of reactivity insertion due to cool down of the reactor following the xenon peak. Two pump operation will enable faster reactor shutdown for ATWS events. The minimum volume required in the storage tank shall be 3605 gallons (276 are contained below the pump suction and, therefore, cannot be inserted). The monthly pump minimum flowrate test shall require a minimum flowrate of 40 gpm per pump. This requirement, combined with the solution concentration requirement of at least 14 wt. percent, will demonstrate that the Standby Liquid Control System meets the requirements of 10 CFR 50.62.

Boron concentration, solution temperature, and volume are checked on a frequency to assure a high reliability of operation of the system should it ever be required. Experience with pump operability indicates that monthly testing is adequate to detect if failures have occurred.

Components of the system are checked periodically as described above and make a functional test of the entire system on a frequency of less than once during each operating cycle unnecessary. A test of one installed explosive charge is made at least once during each operating cycle to assure that the charges have not deteriorated, the actuation circuit is functioning properly, the valve functions properly, and no flow blockages exist. The replacement charge will be selected from a batch for which there has been a successful test firing. Recommendations of the vendor shall be followed in maintaining a five-year life of the explosive charges. A continual check of the firing circuit continuity is provided by pilot lights in the control room.

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