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April 17, 2001

SVP-01-017

Regional Administrator, Region III U. S. Nuclear Regulatory Commission 801 Warrenville Road Lisle, IL 60532-4351

> Quad Cities Nuclear Power Station, Unit 1 Facility Operating License No. DPR-29 NRC Docket No. 50-254

Subject: Quad Cities Nuclear Power Station Unit 1 Refueling Outage Exposure

Reference: NRC Inspection Report, "Quad Cities Nuclear Power Station – NRC Inspection Report 50-254/00-18(DRS); 50-265/00-18(DRS)," dated December 21, 2000

Dear Mr. Dyer,

The purpose of this letter is to inform the NRC of the final exposure assigned to the fall 2000 Unit 1 refueling outage at the Quad Cities Nuclear Power Station (QCNPS). The fall 2000 refueling outage presented several challenges as a result of the higher than anticipated dose rates present in numerous areas of the plant. Previously, we had reported the total outage exposure as 623.03 person-rem. This value was based on electronic dosimeter (ED) readings of the individuals who performed outage activities.

At the completion of the fourth quarter of 2000, personal thermoluminescent dosimeter (TLD) readings were determined in accordance with station procedures. Based on final values, the difference between the EDs and TLDs for the fourth quarter of 2000 is approximately 7.4%. The EDs are conservatively set to read higher than TLDs to ensure actual exposures are lower than the ED readings. Applied in a straight ratio to the ED dose rates, the total exposure of record for the fall 2000 refueling outage is calculated to be 579.99 person rem.

Notwithstanding the above information, we are concerned with the overall exposure received during this outage as well as several performance issues that contributed to the personnel exposure. Corrective actions are being taken as discussed at the Regulatory Conference on February 13, 2001, at the Region III office in Lisle, Illinois.

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We continue to be concerned with the application of the As Low As Reasonably Achievable (ALARA) screening criteria for the Significance Determination Process. Specifically, the application of the screening criteria for this and similar cases, has the potential for unintended consequences in that ALARA dose estimates could be unintentionally inflated.

Should you have any questions concerning this letter, please contact Mr. W. J. Beck at (309) 654-2241, extension 3609.

Respectfully,

George P. Barne

Timothy J. Tulon Site Vice President Quad Cities Nuclear Power Station

cc: U.S. NRC Document Control Desk NRC Senior Resident Inspector – Quad Cities Nuclear Power Station April 17, 2001 U.S. Nuclear Regulatory Commission Page 3

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Project Manager - NRR bcc: Office of Nuclear Facility Safety, - IDNS Senior Reactor Analyst - IDNS **Resident Inspector - IDNS** Manager of Energy Practice - Winston and Strawn Director - Licensing, Mid-West Regional Operating Group Manager - Licensing, Dresden and Quad Cities Station Mid-West Regional Operating Group Document Control Desk - Licensing (Hard Copy) Mid-West Regional Operating Group Document Control Desk - Licensing (Electronic Copy) W. Leech - MidAmerican Energy Company D. Tubbs – MidAmerican Energy Company Regulatory Assurance Manager - Dresden Nuclear Power Station Regulatory Assurance Manager - Quad Cities Nuclear Power Station NRC Coordinator - Quad Cities Nuclear Power Station NSRB Site Coordinator - Quad Cities Nuclear Power Station Site Vice President - Quad Cities Nuclear Power Station Station Manager - Quad Cities Nuclear Power Station **SVP** Letter File