Commonwealth Edison
1400 Opus Place
Downers Grove, Illinois 60515

November 30, 1990

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

Attn: Document Control Desk

Subject: Dresden Nuclear Power Station Unit 2
Cycle 13 Reload and Core Operating Limits Report
NRC Docket No. 50-237

References: (a) B. Siegel (NRC) letter to T. Kovach (CECo), Technical Specification Amendment and Core Operating Limits Report per Generic Letter 88-16, dated February 8, 1990.

(b) M. Richter (CECo) letter to U.S. NRC, Response to NRC Bulletin 90-02, dated April 26, 1990.

(c) P. Eng (NRC) letter to T. Kovach (CECo), Commonwealth Edison Response to NRC Bulletin 90-02, dated June 5, 1990.

(d) M. Richter (CECo) letter to T. Murley (NRC), Fuel Channel Evaluation for Dresden Unit 2 Cycle 13, dated September 21, 1990.

(e) B. Siegel (NRC) letter to T. Kovach (CECo), Evaluation of Response to NRC Bulletin 90-02 for Dresden Station Unit 2, dated November 29, 1990.

Dr. Murley:

Dresden Unit 2, which has completed its twelfth cycle of operation, is currently preparing for Cycle 13 startup (estimated startup date is December 18, 1990). The purpose of this letter is to notify you of the Commonwealth Edison Company (CECo) review and approval of the Cycle 13 reload under the provisions of 10 CFR 50.59, and to transmit the Core Operating Limits Report (COLR) for the upcoming cycle consistent with Generic Letter 88-16. The Technical Specification amendment to incorporate the COLR for Dresden Unit 2 was previously approved by Reference (a).

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The Dresden Unit 2 Cycle 13 core, which consists of NRC approved fuel types developed by Advanced Nuclear Fuels, was designed to operate under currently approved fuel design parameters, Technical Specifications and related bases such that:

- core operating characteristics will be equivalent to or less limiting than those previously reviewed and accepted; or
- reanalysis has been performed to demonstrate that the postulated FSAR events which could potentially be affected by the reload are within allowable limits.

Consistent with past reloads, the reload licensing analyses performed for Cycle 13 utilized NRC approved methodologies. The cycle-specific power distribution limits for Cycle 13 are presented in the attached COLR.

CECo has performed a detailed review of the relevant licensing documents, the associated bases, and references. Based on that review, a safety evaluation was prepared, as required by 10 CFR 50.59 (a) and (b), and approved by On-Site and Off-Site Review. CECo has concluded that the reload presents no unreviewed safety questions, and that no revisions to the current Technical Specifications are required as a result of the reload.

NRC Bulletin 90-02 addressed the loss of thermal margin caused by fuel channel bow, and requested BWR licensees to account for the effects of fuel channel bow during all subsequent reloads. Reference (b) presented CECo's response to the Bulletin, and NRR's approval of that response was received in Reference (c). Subsequent to the issuance of Reference (c), discussions with the NRR Reactor Systems Branch resulted in the Reference (d) submittal describing CECo's plans for utilization of residual reused channels in Cycle 13. NRR's concurrence with these plans was received in Reference (e).

Further verification of the reload core design will be performed in accordance with the standard physics testing normally performed at the beginning of each reload cycle. In addition to the Core Loading Verification, the testing includes, but is not limited to, those tests required by Technical Specifications such as:

- Shutdown Margin Demonstration;
- Control Rod Scram Testing;
- Nuclear Instrumentation Calibration;
- Reactivity Anomaly Surveillance; and
- Thermal Limits Evaluation.

The following tests are also performed primarily for operational information (and for consistency with draft Regulatory Guide SC 521-4):

- TIP Uncertainty Evaluation;
- Critical Eigenvalue Comparison; and
- Control Rod Functional and Subcritical Checks.

Based on the previous discussion, CECo has concluded that NRC review and approval of the Dresden Unit 2 cycle-specific reload analysis is not required for resumption of operation with the Cycle 13 core.

Please contact this office should further information be required.

Respectfully,

Milton H. Richter

M.H. Richter
Nuclear Licensing Administrator

MR:lmw
ZNLD606/6

Attachment: COLR for Dresden Unit 2 Cycle 13

cc: A.B. Davis - Regional Administrator, Region III
B.L. Siegel - NRR Project Manager
D.E. Hills - Senior Resident Inspector, Dresden