



**Commonwealth Edison**

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April 17, 1980

Director of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Subject: Quad Cities Station Unit 2 Cycle 5  
Operation Per Provisions of 10 CFR 50.59  
NRC Docket No. 50/265

References (a): T. A. Ippolito letter to D. L. Peoples dated  
March 20, 1980

Dear Sir:

Quad Cities Unit 2, which has concluded its fourth cycle of operation, has rapidly completed refueling outage activities. This letter is to advise you of Commonwealth Edison Company's review of and plans regarding the reload core. Table 1 provides a summary of key parameters for this reload.

The reload core was designed to perform under current nominal design parameters, Technical Specifications and related bases, and current setpoints (as modified by References (a)) such that:

1. Core characteristics will be less limiting than those previously reviewed and accepted, or
2. For those postulated incidents analyzed and reported in the Final Safety Analysis Report (FSAR) which could potentially be affected by fuel reload, reanalysis has demonstrated that the results of the postulated events are within allowable limits. Commonwealth Edison Company has performed detailed reviews of the General Electric prepared Supplemental Reload Licensing documents and the associated bases and references. Based on these reviews, safety evaluations were performed by Commonwealth Edison On-Site and Off-Site Review pursuant to the requirements of 10 CFR 50.59(a) and 10 CFR 50.59(b).

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As in the past, the Supplemental Reload Licensing Documents relied on previously reviewed and accepted analyses reported in the FSAR, the Generic Reload Fuel Application (NEDE-24011-P-A), and the most recent LOCA analyses for Commonwealth Edison's BWR-3's (NEDO-24146A). Commonwealth Edison verified that the reanalyses were performed in accordance with General Electric reload analysis methodology as described in NEDE-24011-P-A and that the results of these reanalyses were within previously reviewed and accepted limits.

With the approval of Amendment No. 51 to DPR-30 transmitted in Reference (a), Commonwealth Edison has concluded that additional Technical Specification changes are not required for operation of Quad Cities 2 Cycle 5. Commonwealth Edison On-Site and Off-Site Reviews have also concluded that no unreviewed safety questions as defined by 10 CFR 50.59 are involved with this reload. More specifically:

1. There is no increase in the probability of occurrence or the consequences of an incident or malfunction of equipment important to safety previously evaluated in the safety analysis report.
2. No additional accident or malfunction of a different type than any evaluated previously in the safety analysis report has been created, and
3. There has been no reduction in the margin of safety as defined in the basis for any technical specification.

Finally, verification of the reload core design will be performed per the standard startup physics tests normally performed at the start of each reload cycle. In addition to Core Loading Verification, these tests will include, but not be limited to, those required by Technical Specifications such as:

1. Shutdown Margin Demonstration,
2. Control Rod Drive Scram Timing,
3. Nuclear Instrument Calibrations,
4. Reactivity Anomaly Surveillance, and
5. Thermal Limits Evaluation.

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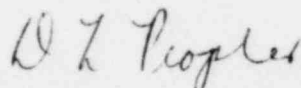
The following tests will be performed primarily for operational information as discussed during the BWR Owners/GE meetings with the Reactor Safety Branch in February and March of 1979:

1. TIP Uncertainty Evaluation,
2. Critical Eigenvalue Comparison, and
3. Control Rod Function and Subcritical Checks.

Therefore, based on the NRC Staff's SER of Reference (a), additional Quad Cities 2 operating license amendments are not required for resumption of operation with the reload core. Our estimated startup date is shown in Table 1 for your information.

One (1) signed original and thirty-nine (39) copies of this transmittal are provided for your use.

Very truly yours,



D. L. Peoples  
Director of  
Nuclear Licensing

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TABLE 1  
QUAD CITIES 2

|                               |                                |
|-------------------------------|--------------------------------|
| Reload                        | 4                              |
| Cycle (N)                     | 5                              |
| Cycle N-1 Burnup              | 7959 MWD/ST                    |
| Projected Cycle N Burnup*     | 5578 MWD/ST                    |
| Reload Batch Size             | 180                            |
| Reload Bundle Avg. Enrichment | 2.65                           |
| Reload Bundle Design          | P8DRB265L (176)<br>8DRB265L(4) |
| Estimated Startup Date        | 4/17/80                        |

\* to End of Full Power Capability (EOFPC) based on actual cycle N-1 Burnup

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