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Byron Generating Station
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June 24, 1996

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Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

ATTN: Document Control Desk

SUBJECT: Byron Unit 1 Cycle 8 Operating Limits Report
Byron Nuclear Power Station
NRC Docket Number: 50-454

Byron Unit 1 has recently completed its 7th cycle of operation and is currently preparing for Cycle 8 startup (estimated startup date is June 26, 1996). The purpose of this letter is to advise you of Commonwealth Edison's (ComEd's) review of the Cycle 8 reload under provisions of 10CFR50.59 and to transmit the Operating Limits Report (OLR) for the upcoming cycle consistent with Generic Letter 88-16.

The BY1C8 core, which consists of NRC-approved fuel designs, was designed to operate within approved fuel design criteria, Technical Specifications and related bases such that:

- 1) core operating characteristics will be equivalent to or less limiting than those previously reviewed and accepted; or
- 2) re-analyses or re-evaluations have been performed to demonstrate that the limiting postulated UFSAR events which could be affected by the reload are within allowable limits.

Consistent with past reloads, the reload licensing analyses performed for Cycle 8 utilized NRC-approved methodologies. During the Cycle 7/8 refueling, seventy-six (76) new VANTAGE 5 fuel assemblies were inserted into the core. The Byron Unit 1 core contains a full core of Westinghouse 17 x 17 VANTAGE 5 assemblies (76 new, 92 once-burned, and 25 twice-burned assemblies). The cycle-specific power distribution limits for operation of Cycle 8 are presented in the attached OLR revision.

ComEd has performed a detailed review of the revised reload licensing documents, the associated bases, and references. Based on that review, a safety evaluation was prepared, as required by 10CFR50.59, which concluded that the reload presents no unreviewed safety questions and requires no Technical Specification change. The Byron On-site Review of the 10CFR50.59 Safety Evaluation has been completed in accordance with station procedures.

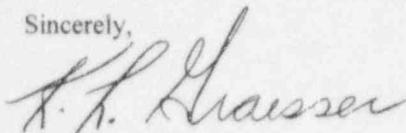
Finally, further verification of the reload core design will be performed during startup testing. The standard tests will be consistent with Technical Specifications and testing recommended in ANS 19.6.1.

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If there are any questions regarding this submittal, please contact Mike Rothenbuehler, Unit 1 Nuclear Engineer, at (815) 234-5442 ext. 2283.

Sincerely,

A handwritten signature in cursive script, appearing to read "K. L. Graesser".

K. L. Graesser
Site Vice President
Byron Nuclear Station

Attachment

cc: G. F. Dick, Byron Project Manager - NRR
H. J. Miller, Regional Administrator - RIII
H. Peterson, Senior Resident Inspector - Byron
Office of Nuclear Facility Safety - IDNS