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U. S. Nuclear Regulatory Commission
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Quad Cities Nuclear Power Station, Units 1 and 2
Facility Operating License Nos. DPR-29 and DPR-30
NRC Docket Nos. 50-254 and 50-265

Subject: Revision to Reactor Vessel Material Specimen Removal Schedule

- Reference:
- (1) Letter From Jack R. Strosnider (NRC) to Carl Terry (BWRVIP Chairman), "BWR Integrated Surveillance Program (BWRVIP-78)", dated May 16, 2000
 - (2) Letter from P. Swafford (ComEd) to USNRC "Revision to Reactor Vessel Material Specimen Removal Schedule", dated July 28, 2000
 - (3) Letter from A. Mendiola (USNRC) to O. D. Kingsley (ComEd) "Dresden, Units 2 and 3 – Approval of Reactor Pressure Vessel Surveillance Capsule Withdrawal Schedule", dated December 22, 2000

In accordance with 10 CFR 50 Appendix H, Section III, "Surveillance Program Criteria", paragraph B.3, we are requesting a change to the Quad Cities Nuclear Power Station (QCNPS) Units 1 and 2 reactor pressure vessel (RPV) surveillance capsule withdrawal schedules. Currently the capsules are scheduled to be withdrawn from Units 1 and 2 in the year 2002 in accordance with Updated Final Safety Analysis Report (UFSAR) Table 5.3-1. We request deferral of the withdrawals for one additional fuel cycle to coincide with refueling outages in November, 2004, for Unit 1 and February, 2004, for Unit 2. As discussed in the paragraphs below, these proposed changes meet the applicable criteria described in Reference 1.

In response to 10 CFR 50 Appendix H, Section III.C, "Requirements for an Integrated Surveillance Program", the BWR Vessel and Internals Project (BWRVIP) recently developed a plan for an RPV integrated surveillance program (ISP). The BWRVIP ISP (i.e. BWRVIP-78) was submitted to the NRC on December 22, 1999. Exelon, as an active participant in the BWRVIP, intends to participate in the ISP as described in BWRVIP-78.

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Based on criteria delineated in the BWRVIP-78 program plan (e.g. chemistry match, baseline data, and fabricator details), the QCNPS Unit 1 and 2 capsules were not selected for withdrawal based on the current ISP.

The NRC (Reference 1 letter), endorsed the concept of a one-cycle capsule deferral to support the ISP and stated that deferral requests should address three criteria. Our review against those criteria are provided in the paragraphs below.

The deferral of removal of the RPV surveillance capsule from QCNPS Units 1 and 2 is consistent with BWRVIP-78, which does not currently require removal of another capsule from these units. Therefore, we have concluded that the deferral of capsule removal for QCNPS is consistent with the intent of the ISP.

The acquisition of material data in accordance with the current schedule is not required to ensure the integrity of the RPV through the period of deferral. Currently, the Quad Cities Technical Specifications contain pressure-temperature (P-T) curves for up to 32 effective full power years (EFPY). No capsule removals are required to support the existing P-T curves. In addition, the data from the capsules would not be expected to provide Charpy shift values above 56°F for welds and 34°F for plates to be distinguishable from the scatter in the Charpy test method based on Regulatory Guide 1.99 "Radiation Embrittlement of Reactor Vessel Materials", Revision 2, equation (2). Also, the surveillance program materials lack unirradiated baseline data which would not allow a meaningful estimation of the materials property shift.

As a result of deferring the capsule removals, the dosimeter information that is not obtained will not affect the validity of the RPV integrity assessments through the period of deferral. The QCNPS Units 1 and 2 RPV operating times as of May 15, 2001 are 19.3 EFPY and 18.6 EFPY, respectfully. The maximum vessel operating times attained at the end of the proposed deferral period will be 22.4 EFPY for Unit 1 and 21.2 EFPY for Unit 2. These operating times represent a maximum of 70% of the current 32 EFPY boundary for the P-T limits. This provides margin to ensure that the current 32 EFPY fluence projection will not be exceeded during the deferral period.

In summary, we believe the proposed one-cycle deferral of the RPV material surveillance capsule withdrawal is acceptable because it is consistent with the intent of the proposed BWR ISP, it will not delay data needed to support existing vessel evaluation requirements, and it will not affect the reactor vessel integrity assessment during the deferral period. Therefore, we request deferral of the withdrawals for one additional fuel cycle to coincide with refueling outages in November, 2004, for Unit 1 and in February, 2004, for Unit 2.

A similar request has been approved for Dresden Station Units 2 and 3 (References 2 and 3).

We are requesting your review and concurrence by December 14, 2001.

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Should you have any questions concerning this letter, please contact Mr. W. J. Beck at (309) 227-2800.

Respectfully,

A handwritten signature in cursive script, appearing to read "Timothy J. Tulon for".

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

cc: Regional Administrator – NRC Region III
NRC Senior Resident Inspector – Quad Cities Nuclear Power Station