AmerGen
An Exelon/British Energy Company

Clinton Power Station
P.O. Box 678
Clinton, IL 61727
Phone: 217 935-8881

10 CFR 50 Appendix H

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U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555-0001

Clinton Power Station, Unit 1
Facility Operating License No. NPF-62
NRC Docket No. 50-461

Subject: Revision to Reactor Vessel Material Specimen Removal Schedule

Reference:
(1) Letter From Jack R. Strosnider to Carl Terry (BWRVIP Chairman), "BWR Surveillance Program (BWRVIP-78)," dated May 16, 2000.

(2) BWRVIP-78, "BWR Vessel and Internals Project, BWR Integrated Surveillance Program Plan (BWRVIP-78)," dated December 1999.

(3) Letter From Anthony J. Mendiola to Oliver D Kingsley, "Dresden, Units 2 and 3 – Approval of Reactor Pressure Vessel Surveillance Capsule Withdrawal Schedule (TAC NOS MA9593 and MA9593) dated December 22, 2000

In accordance with 10 CFR 50 Appendix H, "Reactor Vessel Surveillance Program Requirements." Section III "Surveillance Program Criteria," paragraph B, AmerGen Energy Company, LLC (i.e., AmerGen), requests a change to the Clinton Power Station (CPS), Unit 1 reactor pressure vessel (RPV) surveillance capsule withdrawal schedule. A capsule is scheduled for withdrawal during the eighth refueling outage (RF-8), which begins in March, 2002. AmerGen requests deferral of the capsule withdrawal for one operating cycle. As discussed below, the proposed change meets the applicable criteria described in Reference 1.

In response to 10 CFR 50, Appendix H, Section III.C, "Requirements for the Integrated Surveillance program," the BWR Vessel and Internals Project (BWRVIP) developed a plan for an RPV Integrated Surveillance Program (ISP). AmerGen, as an active participant in the BWRVIP, intends to participate in the ISP as described in Reference 2. The NRC granted a similar deferral in Reference 3 for Dresden Nuclear Power Station.

The Reference 1 criteria and the resolution of the criteria are as follows:

1. Explain how the deferral is consistent with the ISP plan submitted in BWRVIP-78.

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Based on the selection criteria in the BWRVIP-78 program plan, e. g. chemistry match, baseline data, and fabrication details, the BWRVIP did not select CPS capsules for analysis. Instead, AmerGen will characterize CPS RPV material by using the results from the analysis of River Bend's capsules. Therefore, in accordance with the BWRVIP program, no CPS capsules will have to be withdrawn during the CPS operating license period.

2. Explain how the acquisition of materials property data in accordance with the facility's plant-specific Appendix H program is not necessary at this time to ensure that the integrity for the facility RPV will be maintained through the period of deferral.

   Currently the CPS Technical Specifications contain pressure-temperature (P-T) curves applicable for up to 32 effective full power years (EFPY). The CPS vessel will be at 8.9 EFPY at the end of Cycle 8 (March, 2002). No capsule removal is required to support these P-T curves. In addition, the data from the capsules would not be expected to provide Charpy shift values above the 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). Accordingly, no capsule removal is required to support the P-T curves.

3. Explain how deferral of the acquisition of dosimetry data from the capsule to be tested does not affect the validity of the facility's RPV integrity assessments through the period of deferral.

   The CPS vessel exposure will be 8.9 EFPY at the end of Cycle 8, and the vessel exposure at the end of Cycle 9 is projected to be 10.25 EFPY. The vessel exposure calculations have been benchmarked based on analysis of dosimetry specimens in the first refueling outage, and the vessel fluence has recently been verified by GE using two-dimensional neutron transport analyses. This analyzed exposure of 32 EFPY provides ample margin to the dose for the ninth refueling outage of 10.25 EFPY.

In summary, the proposed deferral of the RPV material surveillance capsule withdrawal for one operating cycle 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, deferral is requested for the withdrawal of the CPS vessel material surveillance capsules until the ninth refueling outage.

We request your review and concurrence by February 15, 2002 in order to support the upcoming refueling outage that is scheduled for March 22, 2002.

Should you have any questions concerning this letter, please contact Mr. R. W. Chickering at (217) 937-3334.

Respectfully,

J. M. Heffley
Vice President
Clinton Power Station

cc: Regional Administrator - NRC Region III
NRC Senior Resident Inspector – Clinton Power Station
Office of Nuclear Facility Safety - Illinois Department of Nuclear Safety