

An Exelon Company
AmerGen Energy Company, LLC
4300 Winfield Road
Warrenville, IL 60555

www.exeloncorp.com

Nuclear

Exelon Generation
4300 Winfield Road
Warrenville, IL 60555

10 CFR 50.55a

April 4, 2008
RS-08-032
RA-08-021

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

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

Dresden Nuclear Power Station, Units 2 and 3
Renewed Facility Operating License Nos. DPR-19 and DPR-25
NRC Docket Nos. 50-237 and 50-249

LaSalle County Station, Units 1 and 2
Facility Operating License Nos. NPF-11 and NPF-18
NRC Docket Nos. 50-373 and 50-374

Limerick Generating Station, Units 1 and 2
Facility Operating License Nos. NPF-39 and NPF-85
NRC Docket Nos. 50-352 and 50-353

Oyster Creek Nuclear Generating Station
Facility Operating License No. DPR-16
NRC Docket No. 50-219

Peach Bottom Atomic Power Station, Units 2 and 3
Renewed Facility Operating License Nos. DPR-44 and DPR-56
NRC Docket Nos. 50-277 and 50-278

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

Subject: Response to Request for Additional Information
Request for Relief - Use of the Boiling Water Reactor Vessel and Internals
Project (BWRVIP) Guidelines in Lieu of Specific ASME Code Requirements

References: 1) Letter from P. B. Cowan (Exelon/AmerGen) to U. S. Nuclear Regulatory
Commission, dated April 19, 2007

- 2) Letter from C. Gratton (U. S. Nuclear Regulatory Commission) to C. M. Crane (Exelon/AmerGen), dated September 5, 2007
- 3) Letter from P. B. Cowan (Exelon/AmerGen) to U. S. Nuclear Regulatory Commission, dated October 5, 2007
- 4) Letter from C. Gratton (U. S. Nuclear Regulatory Commission) to C. G. Pardee (Exelon/AmerGen), dated November 29, 2007
- 5) Letter from P. B. Cowan (Exelon/AmerGen) to U. S. Nuclear Regulatory Commission, dated January 8, 2008

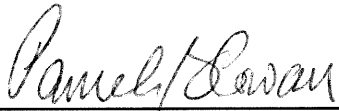
In the Reference 1 letter, Exelon Generation Company, LLC (Exelon) and AmerGen Energy Company, LLC (AmerGen) requested relief from specific portions of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," on the basis that the proposed alternative provides an acceptable level of quality and safety. Specifically, this proposed alternative concerns the use of the Boiling Water Reactor Vessel and Internals Project (BWRVIP) guidelines in lieu of specific ASME Code Requirements.

As a result of discussions concerning this relief request as discussed in a conference call with the NRC staff on February 20, 2008, attached is additional information.

There are no commitments contained in this letter.

If you have any questions, please contact Tom Loomis at 610-765-5510.

Very truly yours,

PB 

Pamela B. Cowan
Director - Licensing and Regulatory Affairs
Exelon Generation Company, LLC
AmerGen Energy Company, LLC

Attachment: Response to Request for Additional Information

cc: Regional Administrator – NRC Region I
Regional Administrator – NRC Region III
NRC Senior Resident Inspector – Clinton Power Station
NRC Senior Resident Inspector – Dresden Nuclear Power Station
NRC Senior Resident Inspector – LaSalle County Station
NRC Senior Resident Inspector – Limerick Generating Station
NRC Senior Resident Inspector – Oyster Creek Nuclear Generating Station
NRC Senior Resident Inspector – Peach Bottom Atomic Power Station
NRC Senior Resident Inspector – Quad Cities Nuclear Power Station

Attachment
Response to Request for Additional Information

ADDITIONAL INFORMATION
REGARDING A REQUEST FOR RELIEF TO USE THE BOILING WATER REACTOR VESSEL
AND INTERNALS PROJECT GUIDELINES AS AN ALTERNATIVE TO CERTAIN
REQUIREMENTS OF SECTION XI OF THE AMERICAN SOCIETY OF MECHANICAL
ENGINEERS BOILER AND PRESSURE VESSEL CODE FOR INSERVICE
INSPECTION (ISI) OF REACTOR VESSEL INTERNAL (RVI) COMPONENTS FOR
CLINTON POWER STATION UNIT 1
DRESDEN NUCLEAR POWER STATION, UNITS 2 AND 3
LASALLE COUNTY STATION, UNITS 1 AND 2
LIMERICK GENERATING STATION, UNITS 1 AND 2
OYSTER CREEK NUCLEAR GENERATING STATION
PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3
QUAD CITIES NUCLEAR POWER STATION, UNITS 1 AND 2

Question:

The staff has reviewed your proposal to impose the inspection requirements designated for the reactor core top guide grid beams in the BWRVIP-26, "BWR Top Guide Inspection and Flaw Evaluation Guidelines," report as an alternative to the requirements given in Section XI of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code). As it is, the staff's understanding that the requirements specified in the BWRVIP-26 report would result in no inspection of the top guide grid beams, your proposed alternative has been found to be unacceptable.

However, alternative top guide grid beam inspection programs have been proposed and accepted for several Exelon Generation Company units as part of those units' license renewal activities. To summarize, these top guide grid beam inspection programs have implemented the requirement of the BWRVIP-26 report as enhanced by the following:

- Commitment # 9 - NUREG-1875, "Safety Evaluation Report Related to the License Renewal of Oyster Creek Generation Station."
- Commitment # 9 - NUREG-1796, "Safety Evaluation Report Related to the License Renewal of Dresden Nuclear Power Station, Units 2 and 3 and Quad Cities Nuclear Power Station, Units 1 and 2."
- Commitment # 8 - NUREG-1769, "Safety Evaluation Report Related to the Peach Bottom Atomic Power Station."

The following three resolution paths are available to the licensee to continue processing your current request:

1. You can withdraw from the current request for alternative that portion which addresses the application of the BWRVIP-26 report requirements and continue to implement the ASME Code, Section XI requirements;
2. The NRC staff can move forward with issuing the safety evaluation which denies that portion of your request for alternative which addresses the application of the BWRVIP-26 report requirements as an alternative to the ASME Code, Section XI requirements; or
3. You can modify this portion of the current request for alternative to propose top guide grid beam inspections for the Exelon fleet which are consistent with the BWRVIP-26 report requirements as modified by the Commitments cited above as an alternative to the ASME Code, Section XI requirements.

Response:

Exelon Generation Company, LLC (Exelon) and AmerGen Energy Company, LLC (AmerGen) propose a modification to Option (3) discussed above. Exelon/AmerGen propose to adopt the top guide inspection guidelines and frequencies as provided in BWRVIP-183, "Top Guide Grid Beam Inspection and Flaw Evaluation Guidelines," 1013401, Final Report, dated December 2007 for all its BWRs. Specifically, the following information provides: 1) a review of the BWRVIP-183 requirements, and; 2) an implementation schedule.

Review of the BWRVIP-183 Requirements:

Exelon/AmerGen will perform the inspections below which are based on the inspection guidelines of BWRVIP-183:

8.1 Inspection Guidelines

All BWRs currently in operation shall perform inspections of the top guide grid cells unless it can be demonstrated that the bottom portions have not exceeded the IASCC threshold fluence for stainless steel of 5.0×10^{20} n/cm².

8.1.1 BWR/2-5 Inspection Frequency

1. The inspection technique to be used is EVT-1 or UT.
2. Inspect 10% of the grid beam cells containing control rod drives/blades every twelve years with at least 5% to be performed within six years.
3. The sample should include a mix of central and peripheral locations around the top guide, where possible, based on normal refueling activities.
4. The regions to be inspected are the bottom 2 inches (50.8 mm) of the interior side surfaces of the grid beam cells. Inspection of the bottom edge of the grid beams is not required. Additionally, the locations at the intersections of the grid beams shall be inspected near the slotted notch where a sharp corner exists, as plant experiences have identified cracking in these locations.

8.1.2 BWR/6 Inspection Frequency

1. The inspection technique to be used is EVT-1 or UT.
2. Inspect the rim areas containing the weld and heat affected zone (HAZ) from the top surface of the top guide and two cells in the same plane/axis as the weld every six years.
3. The regions of the grid beam cells to be inspected are the bottom 2 inches (50.8 mm) of the interior side surfaces. Inspection of the bottom edge of the grid cells is not required.

We note that Clinton Power Station is the only BWR/6 in the Exelon/AmerGen fleet.

Implementation Schedule:

We propose to implement the top guide inspections as discussed above in accordance with BWRVIP rules provided in BWRVIP-94, Revision 1, "BWR Vessel and Internals Project Program Implementation Guide," 1011702, Final Report, dated December 2005, that states:

When this document and other BWRVIP guidelines are approved by the Executive Committee and are initially distributed, or subsequently revised, each utility will modify their vessel and internals program documentation to reflect the new requirements and implement the guidance within two refueling outages, unless a different schedule is identified by the BWRVIP at the time of document distribution. Implementation means not only incorporating the requirements into the utility program, but also performing the initial or baseline inspection and evaluation requirements.