

November 29, 2007

Mr. Charles G. Pardee
Senior Vice President and Chief Nuclear Officer
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AmerGen Energy Company, LLC
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SUBJECT: CLINTON POWER STATION, UNIT NO. 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 - REQUEST FOR ADDITIONAL INFORMATION RE: USE OF THE BOILING WATER REACTOR VESSEL AND INTERNALS PROJECT GUIDELINES IN LIEU OF THE ASME CODE REQUIREMENTS (TAC NOS. MD5352 THRU MD5363)

Dear Mr. Pardee:

By letter to the Nuclear Regulatory Commission (NRC) dated April 19, 2007, as supplemented by letter dated October 5, 2007, Exelon Generation Company, LLC, and AmerGen Energy Company, LLC, submitted a request to use of the boiling water reactor vessel and internals project guidelines in lieu of the American Society of Mechanical Engineers Code requirements, for the subject plants.

The NRC staff is reviewing your submittal and has determined that additional information is required to complete the review. The specific information requested is addressed in the enclosure to this letter. During a discussion with your staff on November 8, 2007, it was agreed that you would provide a response by January 11, 2008.

The NRC staff considers that timely responses to requests for additional information help ensure sufficient time is available for staff review and contribute toward the NRC's goal of

C. Pardee

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efficient and effective use of staff resources. If circumstances result in the need to revise the requested response date, please contact me at (301) 415-1055.

Sincerely,

/RA/

Christopher Gratton, Senior Project Manager
Plant Licensing Branch III-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-461; 50-237 and 50-249; 50-373
and 50-374; 50-352 and 50-353; 50-219; 50-277
and 50-278; 50-254 and 50-265

Enclosure:
Request for Additional Information

cc w/encl: See next page

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Sincerely,

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Christopher Gratton, Senior Project Manager
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Enclosure:
Request for Additional Information

cc w/encl: See next page

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REQUEST FOR ADDITIONAL INFORMATION

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

DOCKET NOS. 50-461; 50-237 AND 50-249; 50-373 AND 50-374;

50-352 AND 50-353; 50-219; 50-277 AND 50-278; 50-254 AND 50-265

In reviewing the Exelon Generation Company's, LLC, and AmerGen Energy Company, LLC, (Exelon/Amergen, the licensee) submittal dated April 19, 2007, as supplemented by letter dated October 5, 2007, the Nuclear Regulatory Commission (NRC) staff has determined that the following information is needed in order to complete its review:

CORE PLATE COMPONENTS

ASME Code, Section XI Requirement for Core Plate Components

Table IWB-2500-1 of the American Society of Mechanical Engineers (ASME) Code, Section XI, Examination Category B-N-2, "Integrally Welded Core Support Structure," item No. B.13.40 requires visual examination (VT-3) of the accessible surfaces. Core plate components are part of core support structures.

A VT-3 examination is conducted to determine the general mechanical and structural condition of components.

NRC Staff's Position:

It is the NRC staff's position that VT-3 of the accessible surfaces will include inspections on both base metal and welds that are associated with the core plate components.

Regulatory Provision

Utilities can get relief from implementing the ASME Code, Section XI inservice inspection (ISI) examinations for the core plate components under the provisions of Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.55a(a)(3)(i).

In the United States, some boiling water reactor (BWR) units are complying with the ASME Code criteria by performing a VT-3 inspection of the core plate components.

Background

By letter dated April 19, 2007, as supplemented by letter dated October 5, 2007, the licensee submitted Relief Request (RR) RS-07-058 for its BWR fleet. The licensee proposed to use Boiling Water Reactor Vessel Internal Program (BWRVIP) guidelines as an alternative to certain requirements of Section XI of the ASME Code for ISI of reactor vessel internal (RVI) components.

In its letter dated October 5, 2007, the licensee stated that it has committed to follow the BWRVIP Guidelines. However, the BWRVIP-25 report, "BWR Core Plate Inspection and Flaw Evaluation Guidelines," was not listed in the original RR because the licensee considered this report to be unrelated to ASME Code, Section XI Examination Categories B-N-1 and B-N-2. However, to maintain consistency with the previous RRs submitted by other licensees, the licensee agreed to reference the BWRVIP-25 report in the current RR.

In the October 5, 2007, letter, the licensee submitted inspection results that were performed to date on various RVI components in its BWR fleet. The NRC staff noted that the October 5, 2007, submittal listed ISI results of the core plate components for the following units only:

Limerick Generating Station (LGS), Unit 1 (1998 outage)
LGS, Unit 2 (1995 and 1999 outages)
Peach Bottom Atomic Power Station (PBAPS), Unit 2 (1996 outage)
PBAPS, Unit 3 (1995 and 1997 outages)
Quad Cities Nuclear Power station (QCNPS), Unit 1 (1996, 1998 and 2007)
QCNPS, Unit 2 (1997 and 2006)

To clarify this inconsistency, the NRC staff requests that the licensee provide the following information:

- (1) Identify the BWR units that consider core plate components part of the ASME Code, Section XI ISI program. Provide an explanation why some units' core plate components were inspected per the ASME Code, Section XI ISI program, and other units' core plate components have not been inspected.
- (2) Identify the BWR units that intend to implement the options specified in the BWRVIP-25 report in lieu of the ASME Code, Section XI ISI program for the core plate components.
- (3) Confirm whether the inspection guidelines specified in the BWRVIP-25 report for the core plate components will be used for the BWR units that do not consider core plate components as part of the ASME Code, Section XI ISI program.

STANDBY LIQUID CONTROL SYSTEM

ASME Code, Section XI Requirement for Standby Liquid Control System (SLCS) Components Nozzle-to-Safe End Welds

Table IWB-2500-1 of the ASME Code, Section XI, Examination Category B-F, "Pressure Retaining Dissimilar Metal Welds in Nozzles," Item No. B5.20 requires surface examination of the welds.

Table IWB-2500-1 of the ASME Code, Section XI, Examination Category B-J, "Pressure Retaining Welds in Piping," Item No. B9.20 requires surface examination of the non-dissimilar welds.

Table IWB-2500-1 of the ASME Code, Section XI, Examination Category B-P, "All Pressure Retaining Components," Item No. B15.10 requires VT-2 during system leakage tests.

A VT-2 examination is conducted to detect evidence of leakage from pressure retaining components during a system pressure test.

Core Plate Differential Pressure (ΔP)/SLCS Penetrations

Partial Penetration Welds

Table IWB-2500-1 of the ASME Code, Section XI, Examination Category B-E, Item No. B4.11 requires visual examination (VT-2) of the welds. In addition, VT-2 examination during system leakage is required per item No. B15.10 under Category B-P.

Full Penetration Welds

Table IWB-2500-1 of the ASME Code, Section XI, Examination Category B-D, Item Nos. B3.10 and B3.20 require volumetric examination of the welds.

Table IWB-2500-1 of the ASME Code, Section XI, Examination Category B-P, "All Pressure Retaining Components," Item No. B15.10 requires VT-2 during system leakage tests.

Regulatory Provision

Utilities can get relief from implementing the ASME Code, Section XI ISI examinations for the core plate components under the provisions of 10 CFR Part 50a(a)(3)(i).

Background

In its letter dated October 5, 2007, the licensee stated that it has committed to follow the BWRVIP Guidelines. The BWRVIP-27-A report, "BWRVIP Standby Liquid Control System/Core Spray/Core Plate ΔP Inspection and Flaw Evaluation Guidelines," was not listed in the original RR because the licensee considered the BWRVIP-27-A report to be unrelated to the ASME Code, Section XI examination categories B-N-1 and B-N-2. However, to maintain consistency with the previous RR submitted by other licensees, the licensee agreed to reference the BWRVIP-27-A report in the current RR.

The NRC staff acknowledges that SLCS and core plate ΔP components are not part of B-N-1 and B-N-2 categories, but they are considered part of B-D, B-E, B-F, B-J and B-P categories of the ASME Code, Section XI ISI program.

In the October 5, 2007, letter, the licensee submitted inspection results that were performed to date on various RVI components in its BWR fleet. The NRC staff noted that the October 5, 2007, submittal listed ISI results of the SLCS and core plate ΔP components for the following units only:

Dresden Nuclear Power Station (DNPC), Unit 2 (2000 and 2004 outages)
DNPS, Unit 3 (2002 and 2006 outages)
Oyster Creek Nuclear Generating Station (2000, 2002, 2004 and 2006 outages)
LaSalle County Station (LSCS), Unit 1 (1999, 2002, 2004 and 2006 outages)
LSCS, Unit 2 (2000, 2003, 2005 and 2007 outages)

To clarify this inconsistency, the NRC staff requests that the licensee provide the following information:

- (1) Identify the BWR units that consider SLCS and core plate ΔP components part of the ASME Code, Section XI ISI program. Provide an explanation why some units' SLCS and core plate ΔP components were inspected per the ASME Code, Section XI ISI program and other units' SLCS and core plate ΔP components have not been inspected.
- (2) Identify the BWR units that intend to implement the inspection guidelines specified in the BWRVIP-27-A report in lieu of the ASME Code, Section XI ISI program for the SLCS and core plate ΔP components.
- (3) Confirm whether the inspection guidelines specified in the BWRVIP-27-A report for the SLCS and core plate ΔP components will be used for the BWR units that do not consider SLCS and core plate ΔP components as part of the ASME Code, Section XI ISI program.

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