

March 9, 2006

Mr. Christopher M. Crane  
President and Chief Executive Officer  
AmerGen Energy Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: OYSTER CREEK NUCLEAR GENERATING STATION - REQUEST FOR  
ADDITIONAL INFORMATION RE: REVISION OF APPENDIX B,  
ENVIRONMENTAL TECHNICAL SPECIFICATIONS (TAC NO. MC6046)

Dear Mr. Crane:

By letter dated February 2, 2005, AmerGen Energy Company, LLC (AmerGen) submitted a license amendment request (LAR) for the Oyster Creek Nuclear Generating Station (Oyster Creek). The LAR requested to revise the Oyster Creek Technical Specifications to incorporate the isolation trip setting and the instrumentation surveillance requirements of the reactor water cleanup high energy line break detection and isolation equipment.

The Nuclear Regulatory Commission staff has been reviewing the submittal and has determined that additional information is needed to complete its review. These questions were discussed with Mr. David Robillard of your staff on February 9, 2006. A response to this request for additional information is requested to be provided within 30 days. If you need additional time to respond to these questions, please let me know.

Sincerely,

*/RA/*

G. Edward Miller, Project Manager  
Plant Licensing Branch 1-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-219

Enclosure:  
Request for Additional Information

cc w/encl: See next page

March 9, 2006

Mr. Christopher M. Crane  
President and Chief Executive Officer  
AmerGen Energy Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

By letter dated February 2, 2005, AmerGen Energy Company, LLC (AmerGen) submitted a license amendment request (LAR) for the Oyster Creek Nuclear Generating Station (Oyster Creek). The LAR requested to revise the Oyster Creek Technical Specifications to incorporate the isolation trip setting and the instrumentation surveillance requirements of the reactor water cleanup high energy line break detection and isolation equipment.

The Nuclear Regulatory Commission staff has been reviewing the submittal and has determined that additional information is needed to complete its review. These questions were discussed with Mr. David Robillard of your staff on February 9, 2006. A response to this request for additional information is requested to be provided within 30 days. If you need additional time to respond to these questions, please let me know.

Sincerely,

*/RA/*

G. Edward Miller, Project Manager  
Plant Licensing Branch 1-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-219

Enclosure:  
Request for Additional Information

cc w/encl: See next page

DISTRIBUTION:

PUBLIC	RidsNrrDorlLplb	RidsNrrPMGMiller	RidsOgcMailCenter
LPL1-2 R/F	RidsNrrLACRaynor	RidsAcrsAcnwMailCenter	RYoung
RidsNrrDssSbpb	SMazumdar		

Accession Number: ML060670463

OFFICE	NRR/LPL1-2/PM	NRR/LPL1-2/LA	NRR/DSS/SBPB/BC	NRR/LPL1-2/BC
NAME	GEMiller	CRaynor	DSolorio	DRoberts
DATE	3/09/06	3/09/06	3/7/06	3/09/06

**OFFICIAL RECORD COPY**

## REQUEST FOR ADDITIONAL INFORMATION

### OYSTER CREEK NUCLEAR GENERATING STATION, UNIT NO. 1

(TAC NO. MC6046)

By letter dated February 2, 2005, AmerGen Energy Company, LLC (AmerGen) submitted a license amendment request for a change to the Oyster Creek Nuclear Generating Station (Oyster Creek), Technical Specifications (TSs), requesting to incorporate the isolation trip setting and the instrumentation surveillance requirements of the reactor water cleanup (RWCU) system high energy line break (HELB) detection and isolation equipment to the TSs. The Nuclear Regulatory Commission staff requests the following additional information to complete its review:

1. Describe the HELB analysis utilized in postulating an RWCU system HELB downstream of the system isolation valves (e.g., computer codes used, location of the postulated break, reactor coolant mass and energy discharge, predicted temperature response, etc.).
2. Section 5 of Enclosure 1 to your submittal states the following:

This safety grade break detection/isolation equipment monitors RWCU pump room temperature and initiates a[n] RWCU system isolation when ambient temperature exceeds a preset limit, below the process safety limit of 180 EF. The system is designed to detect a line failure as small as a one-inch diameter pipe and as large as a full guillotine rupture of the largest system pipe (six-inch diameter). The small line break is the most difficult to detect, and such, is used to establish the location and actuation limit of the temperature monitor.

Define the terms preset limit, process safety limit, and temperature monitor actuation limit. Explain the HELB analysis utilized to determine the preset limit and how this limit relates to the process safety limit (180 EF) and the temperature monitor actuation limit. Address the radiological impact of an RWCU system HELB for a small pipe. In particular, consider a pipe break where the release of reactor coolant mass is very small in magnitude over a prolonged period of time (e.g., slow leak), making detection and timely closure of the RWCU isolation valves even more difficult.

3. Section 5 of Enclosure 1 to the submittal states the following:

Calculation C-1302-215-E610-060...determined that a detector located at the RWCU pump room exit will detect the failure of an instrument tube size break in one minute. This calculation established an actuation setpoint of 180 EF for the RWCU HELB detectors to be consistent with the Emergency Operating Procedures (EOPs) at the time of the modification... This is a conservative value that considers the maximum allowable environmental temperature for equipment and instrumentation

Enclosure

installed in the affected area, systems operational values, and system interactions.

Summarize how the actuation setpoint of 180 EF is a conservative value when compared to the maximum allowable environmental temperature for equipment and instrumentation installed in the affected area, systems operational values, and system interactions. State how use of the 180 EF setpoint facilitates effective and timely detection and isolation of the RWCU system HELB described above (e.g., setpoint is high enough to prevent system isolation due to spurious actuation). Compare the predicted maximum temperature for the RWCU pump room with bounding temperature profiles used for equipment qualification. Consider the HELB results compared to the profiles of other equipment qualification parameters (e.g., steam, pressure, radiation).

Provide Calculation C-1302-215-E610-060, which supports the safety evaluation for the modification.

4. Section 5.4.8.2 of the final safety analysis report states that for the RWCU system, the supply line has a motor operated isolation valve inside the drywell and two parallel motor operated isolation valves outside the drywell, and the return line has one motor operated isolation valve outside the drywell. Section 5.4.8.2 refers to Table 6.2-12, "Containment Isolation Valves/Mechanical Integrity," for isolation signals for each valve, however; Table 6.2-12, which lists the four RWCU system isolation valves (V-16-061, V-16-001, V-16-014, and V-16-002) does not show valve V-16-061 receiving a signal to isolate on RWCU HELB. Please explain this apparent discrepancy.

## Oyster Creek Nuclear Generating Station

Site Vice President - Oyster Creek  
Nuclear Generating Station  
AmerGen Energy Company, LLC  
P.O. Box 388  
Forked River, NJ 08731

Senior Vice President of  
Operations  
AmerGen Energy Company, LLC  
200 Exelon Way, KSA 3-N  
Kennett Square, PA 19348

Kathryn M. Sutton, Esquire  
Morgan, Lewis, & Bockius LLP  
1111 Pennsylvania Avenue, NW  
Washington, DC 20004

Kent Tosch, Chief  
New Jersey Department of  
Environmental Protection  
Bureau of Nuclear Engineering  
CN 415  
Trenton, NJ 08625

Vice President - Licensing and  
Regulatory Affairs  
AmerGen Energy Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

Regional Administrator, Region I  
U.S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, PA 19406-1415

Mayor of Lacey Township  
818 West Lacey Road  
Forked River, NJ 08731

Senior Resident Inspector  
U.S. Nuclear Regulatory Commission  
P.O. Box 445  
Forked River, NJ 08731

Director - Licensing and Regulatory Affairs  
AmerGen Energy Company, LLC  
Correspondence Control  
P.O. Box 160  
Kennett Square, PA 19348

Manager Licensing - Oyster Creek  
Exelon Generation Company, LLC  
Correspondence Control  
P.O. Box 160  
Kennett Square, PA 19348

Regulatory Assurance Manager  
Oyster Creek  
AmerGen Energy Company, LLC  
P.O. Box 388  
Forked River, NJ 08731

Assistant General Counsel  
AmerGen Energy Company, LLC  
200 Exelon Way  
Kennett Square, PA 19348

Ron Bellamy, Region I  
U.S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, PA 19406-1415

Correspondence Control Desk  
AmerGen Energy Company, LLC  
200 Exelon Way, KSA 1—1  
Kennett Square, PA 19348

Oyster Creek Nuclear Generating Station  
Plant Manager  
AmerGen Energy Company, LLC  
P.O. Box 388  
Forked River, NJ 08731