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

www.exeloncorp.com

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April 17, 2007
2130-07-20482

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

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

Subject: Response To Request For Additional Information – Regarding NRC Generic Letter (GL) 2003-01, "Control Room Habitability," dated June 12, 2003 (TAC NO. MB9832)

References: (1) Exelon/AmerGen Letter to USNRC, "Exelon/AmerGen 180-Day Response To NRC Generic Letter 2003-01, "Control Room Habitability"," dated December 9, 2003

(2) AmerGen Letter to USNRC, "Response To Request For Additional Information – Regarding NRC Generic Letter (GL) 2003-01, "Control Room Habitability"," dated November 17, 2005

This letter provides the response to the NRC draft request for additional information received by email on March 13, 2007, regarding the Oyster Creek response to NRC GL 2003-01, "Control Room Habitability," submitted to the NRC on December 9, 2003 (Reference 1) and associated response to request for additional information provided in Reference 2. The additional information is provided in Enclosure 1 to this letter.

No new regulatory commitments are established by this submittal. If any additional information is needed, please contact David J. Distel at (610) 765-5517.

Respectfully,

Pamela B. Cowan
Director - Licensing & Regulatory Affairs
AmerGen Energy Company, LLC

Enclosures: 1) Response to Request for Additional Information

cc: S. J. Collins, USNRC Administrator, Region I
G. E. Miller, USNRC Project Manager, Oyster Creek
M. S. Ferdas, USNRC Senior Resident Inspector, Oyster Creek
File No. 03093

ENCLOSURE 1

OYSTER CREEK

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

REGARDING NRC GENERIC LETTER (GL) 2003-01, "CONTROL ROOM HABITABILITY"
DATED JUNE 12, 2003

In response to a Request for Additional Information (RAI) regarding NRC Generic Letter 2003-01 "Control Room Habitability", dated September 14, 2005 (ADAMS Accession No. ML052370260) regarding Oyster Creek Nuclear Generating Station (OCNGS), AmerGen Energy Company, LLC, submitted additional information for OCNGS in a letter dated November 17, 2005 (ADAMS Accession No. ML053220138).

The RAI requested a description of the test and measurements that have been performed to demonstrate that the inleakage characteristics of the control room envelope, including its walls, floors and ceilings, are consistent with the OCNGS licensing basis. It also requested a description of how it has been determined that the byproducts of a fire or the inadvertent actuations of a fire suppression system will not propagate such that reactor control would be unattainable from either the control room and the alternate shutdown panels. In the RAI the staff also communicated their belief that an additional technical specification to measure control room ventilation system makeup and recirculation flowrates is necessary to confirm compliance with OCNGS's licensing basis.

1. **NRC Question**

In Enclosure 1, Page 2, Paragraph 2 (below the table), AmerGen states that "Outside air from the Control Room HVAC System air intake contains the highest radioactivity concentration of any potential inleakage source to the Oyster Creek CRE. " But in Enclosure 1, Page 3, Paragraph 4, AmerGen states that ".the Upper Cable Spreading Room (UCSR) is the only possible source of radioactivity inleakage at concentrations higher than that found in the CRE air intake." Please clarify the statements about the outside air and the air within the UCSR both having the higher or highest radioactivity concentration.

Response

The air taken into the control room via the air intakes represents that air with the maximum concentration of any area immediately outside of the control room. This is due to the fact that the intakes are located on the top or the upper side of the control room. The reference to the UCSR was only to state that it is the only other area immediately adjacent to the control room that could have high activity with the potential for inleakage into the control room and to identify the fact that it was considered in the CR dose evaluation. However, because of this close proximity, this air inleakage path is drawing air from the same contaminated source as the supply air intake for both system trains. Therefore, the normal supply air intake and any potential unfiltered air inleakage from the upper cable spreading room leading into the control room would be at the same radiological concentration. This air inleakage will be of an insignificant amount when compared to the amount of unfiltered air being brought directly into the control room envelope by the normal supply air intake.

Based on the control room HVAC system operation, and the Oyster Creek CRE and Upper Cable Spreading Room configuration, it has been determined that there are no other credible inleakage paths with higher concentrations or flow rates to be assumed in

the control room operator dose analysis.

By assuming that all inleakage enters the control room (unfiltered) via the intakes, it is assured that the highest X/Qs are used and that doses are maximized.

2. **NRC Question**

In Enclosure 1, Page 3, Paragraph 5, AmerGen states that "No inleakage is expected from these sources (fire doors, fire penetrations in the UCSR) since no differential pressure will exist that will drive inleakage into the UCSR." In Enclosure 1, Page 2, Paragraph 3, AmerGen states that "The majority of the control room ventilation system ductwork under negative pressure is in the UCSR adjacent to the CRE." Previously, the NRC staff has held the position that, should there be inleakage from the UCSR into the CRE ventilation system ductwork there, it would appear logical to assume that the pressure in the UCSR would drop creating a differential pressure situation that would drive inleakage into the UCSR. Please provide additional information supporting the contention that there could not be any air leakage into the CRE ventilation duct from the UCSR atmosphere to result in a lowering of the UCSR pressure relative to surrounding areas.

Response

The return air ductwork in the upper cable spreading room is common to the "A" and "B" Control Room HVAC systems. The ductwork is not sealed. Therefore, it will produce a negative pressure differential in the upper cable spreading room and will draw air from outside through the only and most direct unsealed inleakage path, which is through the door from outside into the vestibule and through another door into the upper cable spreading room. The door to the outside is adjacent to the air intake for the "A" Control Room HVAC system and about 15 feet below the air intake for the "B" Control Room HVAC system. Because of this close proximity, this air inleakage path is drawing air from the same potentially contaminated source as the supply air intake for both control room ventilation system trains. Therefore, the normal supply air intake and the unfiltered air inleakage from the upper cable spreading room would be at the same radiological concentration. This air inleakage due to the pressure differential will be of an amount that is insignificant compared to the amount of unfiltered air being brought directly into the control room envelope by the normal supply air intake. It should be noted that the return air duct is connected at the air intake plenum for each system train and mixes with the entering supply air. The potential outside air inleakage will take a longer path than the normal intake supply air to get to the same location, which is upstream of the normal air filter (non HEPA or charcoal), cooling and heating coils and supply fan.

The upper cable spreading room floor is adjacent to the Main Control Room. There should be no inleakage into the Control Room because all floor penetrations are sealed and the Control Room is at a positive pressure.